DOE/NASA/0031-80/6
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COGENERATION TECHNOLOGY ALTERNATIVES STUDY (CTAS)

GENERAL ELECTRIC COMPANY

FINAL REPORT

VOLUME VI - COMPUTER DATA

PART 1 – Coal-Fired Nocogeneration Process Boiler

Section B

W.F. Knightly

May, 1980

PREPARED FOR
National Aeronautics Space Administration
Lewis Research Center
Under Contract DEN3-31

FOR

U.S. Department of Energy
Office of Energy Technology
Division of Fossil Fuel Utilization

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COAL-FIRED NOCOGENERATION PROCESS BOILER

5.3 - Capital Costs by Island for Selected Process-ECS Matches

DATE 03/31/79
1 SE-PEG ADV. DES. ENGRG.

COGENERATION TECHNOLOGY ALTERNATIVES STUDY
REPORT 5.3
CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20111

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 24.
N O C O G E N E R A T I SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.029	0.006	0.034	0.031	0.071	0.100	0.
	ISLAND TOTAL	0.029	0.006	0.034	0.031	0.071	0.100	0.
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.113	0.233	0.356	0.321	0.910	1.023	0.
	ISLAND TOTAL	0.113	0.233	0.356	0.321	0.910	1.023	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.042	0.035	0.032	0.109	0.109	0.
	ISLAND TOTAL	0.	0.042	0.035	0.032	0.109	0.109	0.
TOTAL THIS CASE		0.141	0.281	0.426	0.383	1.090	1.231	0.
INDIRECT COSTS	SPARES —						0.003	
	START UP —						0.008	
	SPARES+STARTUP						0.011	
	CONTINGENCY —						0.186	
	ENGINEERING SERVICES						0.075	
	A-E FEE						0.062	
GRAND TOTAL							1.566	

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PROCESS 20111

ECS DEADV3 PROCESS MEGAWATTS 1.94 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 24.
DIESEL-ADVANCED-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 18. KW FUEL= 5228.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.035	0.007	0.042	0.037	0.086	0.121	23.081
	ISLAND TOTAL	0.035	0.007	0.042	0.037	0.086	0.121	23.081
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	1.453	0.163	0.163	0.146	0.471	1.925	368.094
	ISLAND TOTAL	1.453	0.163	0.163	0.146	0.471	1.925	368.094
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.095	0.196	0.299	0.269	0.764	0.859	164.319
	ISLAND TOTAL	0.095	0.196	0.299	0.269	0.764	0.859	164.319
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.064	0.056	0.050	0.169	0.169	32.400
	80. MASTER-CONTROL	0.070	0.010	0.017	0.016	0.043	0.113	21.626
	81. ELECTRIC-SWITCHGEAR-	0.	0.013	0.013	0.011	0.037	0.037	7.018
	82. INTERCONNECTING-PIPI	0.	0.025	0.025	0.022	0.071	0.071	13.666
	83. STRUCTURES-MISCELLAN	0.	0.055	0.047	0.042	0.145	0.145	27.721
	ISLAND TOTAL	0.070	0.167	0.157	0.142	0.466	0.536	102.431
TOTAL THIS CASE		1.652	0.532	0.661	0.595	1.788	3.440	113.746
INDIRECT COSTS	SPARES						0.033	
	START UP						0.028	
	SPARES+STARTUP						0.061	
	CONTINGENCY						0.525	
	ENGINEERING SERVICES						0.210	
	A-E FEE						0.175	
GRAND TOTAL							4.412	$44

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
REPORT 5.3
CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20111

ECS DEHTPM PROCESS MEGAWATTS 1.94 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 24.
ADV-DIESEL-HEAT-PUMP SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 18. KW FUEL= 5314.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.034	0.007	0.040	0.036	0.083	0.117	21.994
	ISLAND TOTAL	0.034	0.007	0.040	0.036	0.083	0.117	21.994
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	1.466	0.164	0.164	0.147	0.475	1.943	365.616
	32. DIESEL-ENGINE-GENERA	0.013	0.002	0.001	0.001	0.004	0.017	3.137
	ISLAND TOTAL	1.480	0.165	0.165	0.149	0.479	1.960	368.753
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.088	0.182	0.278	0.250	0.710	0.798	150.263
	ISLAND TOTAL	0.088	0.182	0.278	0.250	0.710	0.798	150.263
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.061	0.053	0.048	0.162	0.162	30.418
	80. MASTER-CONTROL	0.067	0.010	0.017	0.015	0.042	0.109	20.481
	81. ELECTRIC-SWITCHGEAR-	0.	0.013	0.013	0.011	0.037	0.037	6.905
	82. INTERCONNECTING-PIPI	0.	0.023	0.023	0.021	0.068	0.068	12.742
	83. STRUCTURES-MISCELLAN	0.	0.053	0.045	0.040	0.138	0.138	25.974
	ISLAND TOTAL	0.067	0.160	0.151	0.136	0.446	0.513	96.520
TOTAL THIS CASE		1.669	0.514	0.634	0.571	1.719	3.388	107.429
INDIRECT COSTS	SPARES						0.033	
	START UP						0.028	
	SPARES+STARTUP						0.062	
	CONTINGENCY						0.517	
	ENGINEERING SERVICES						0.207	
	A-E FEE						0.172	
GRAND TOTAL							4.346	819

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20111

ECS DESGA3 PROCESS MEGAWATTS 1.94 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 24.
DIESEL-SGA-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 18. KW FUEL= 5373.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.035	0.007	0.042	0.038	0.087	0.122	22.675
	ISLAND TOTAL	0.035	0.007	0.042	0.038	0.087	0.122	22.675
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	0.685	0.130	0.130	0.117	0.377	1.062	197.682
	ISLAND TOTAL	0.685	0.130	0.130	0.117	0.377	1.062	197.682
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.095	0.197	0.301	0.270	0.768	0.863	160.610
	ISLAND TOTAL	0.095	0.197	0.301	0.270	0.768	0.863	160.610
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.065	0.056	0.051	0.172	0.172	31.972
	80. MASTER-CONTROL	0.070	0.010	0.017	0.016	0.044	0.113	21.094
	81. ELECTRIC-SWITCHGEAR-	0.	0.013	0.013	0.011	0.037	0.037	6.828
	82. INTERCONNECTING-PIPI	0.	0.025	0.025	0.022	0.072	0.072	13.343
	83. STRUCTURES-MISCELLAN	0.	0.056	0.048	0.043	0.147	0.147	27.371
	ISLAND TOTAL	0.070	0.169	0.159	0.143	0.471	0.541	100.608
TOTAL THIS CASE		0.885	0.503	0.632	0.569	1.703	2.588	105.815
INDIRECT COSTS	SPARES						0.018	
	START UP						0.020	
	SPARES+STARTUP						0.038	
	CONTINGENCY						0.394	
	ENGINEERING SERVICES						0.158	
	A-E FEE						0.131	
GRAND TOTAL							3.308	616

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20111

ECS FCPADS PROCESS MEGAWATTS 1.94 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 24.
FUEL-CL-PHOSACID-D3 SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 18. KW FUEL= 5279.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.035	0.007	0.042	0.038	0.087	0.122	23.168
		ISLAND TOTAL	0.035	0.007	0.042	0.038	0.087	0.122	23.168
2. FUEL-UTILIZATION-CLE	28.	REFORMER-SHIFTER-AND	0.278	0.028	0.042	0.038	0.107	0.385	72.901
		ISLAND TOTAL	0.278	0.028	0.042	0.038	0.107	0.385	72.901
3. ENERGY-CONVERSION	36.	FUEL-CELLS-PHOSPHORI	0.320	0.032	0.048	0.043	0.123	0.443	84.007
		ISLAND TOTAL	0.320	0.032	0.048	0.043	0.123	0.443	84.007
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.097	0.200	0.306	0.275	0.781	0.877	166.195
		ISLAND TOTAL	0.375	0.228	0.347	0.312	0.888	1.262	239.096
8. BALANCE-OF-PLANT	64.	POWER-PLANT-STRUCTUR	0.	0.065	0.057	0.051	0.173	0.173	32.725
	80.	MASTER-CONTROL	0.070	0.011	0.018	0.016	0.044	0.114	21.664
	81.	ELECTRIC-SWITCHGEAR-	0.	0.013	0.013	0.011	0.037	0.037	6.951
	82.	INTERCONNECTING-PIPI	0.	0.025	0.025	0.023	0.073	0.073	13.754
	83.	STRUCTURES-MISCELLAN	0.	0.057	0.048	0.043	0.148	0.148	28.021
		ISLAND TOTAL	0.070	0.170	0.160	0.144	0.474	0.544	103.115
TOTAL THIS CASE			0.800	0.437	0.598	0.538	1.572	2.372	101.876
INDIRECT COSTS		SPARES						0.016	
		START UP						0.018	
		SPARES+STARTUP						0.034	
		CONTINGENCY						0.361	
		ENGINEERING SERVICES						0.144	
		A-E FEE						0.120	
GRAND TOTAL								3.032	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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PROCESS 20111

ECS STIRL PROCESS MEGAWATTS 1.94 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 24.
STIRLING-1472F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 22. KW FUEL= 6420.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.034	0.007	0.041	0.037	0.085	0.120	18.623
	ISLAND TOTAL	0.034	0.007	0.041	0.037	0.085	0.120	18.623
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	0.027	0.003	0.003	0.003	0.010	0.036	5.661
	29. STIRLING-ENGINE-COMB	0.501	0.062	0.062	0.056	0.181	0.682	106.211
	21. OIL-FIRED-BOILER	0.081	0.168	0.257	0.231	0.656	0.737	114.858
	ISLAND TOTAL	0.609	0.234	0.323	0.290	0.847	1.456	226.729
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.063	0.055	0.049	0.167	0.167	26.030
	80. MASTER-CONTROL	0.064	0.010	0.016	0.014	0.040	0.105	16.306
	81. ELECTRIC-SWITCHGEAR-	0.	0.013	0.013	0.011	0.037	0.037	5.715
	82. INTERCONNECTING-PIPI	0.	0.022	0.022	0.020	0.064	0.064	9.983
	83. STRUCTURES-MISCELLAN	0.	0.055	0.046	0.042	0.143	0.143	22.258
	ISLAND TOTAL	0.064	0.162	0.152	0.137	0.451	0.515	80.292
TOTAL THIS CASE		0.707	0.403	0.516	0.464	1.383	2.091	72.344
INDIRECT COSTS	SPARES						0.014	
	START UP						0.016	
	SPARES+STARTUP						0.030	
	CONTINGENCY						0.318	
	ENGINEERING SERVICES						0.127	
	A-E FEE						0.106	
GRAND TOTAL							2.672	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
REPORT 5.3
CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20461

ECS ONOCGN N O C O G E N E R A T I PROCESS MEGAWATTS 0. SITE FUEL= COAL-FGD PROCESS TEMP. 250. COGEN FUEL BTU*10**6= 0. PROCESS HEAT(BTU*10**6) 659. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.516	0.103	0.335	0.302	0.741	1.257	0.
	3. LIMESTONE/DOLOMITE-U	0.329	0.211	0.187	0.169	0.567	0.896	0.
	ISLAND TOTAL	0.845	0.315	0.523	0.470	1.308	2.153	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	6.495	7.495	8.116	7.305	22.916	29.410	0.
	ISLAND TOTAL	6.495	7.495	8.116	7.305	22.916	29.410	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.734	0.689	0.620	2.042	2.042	0.
	ISLAND TOTAL	0.	0.734	0.689	0.620	2.042	2.042	0.
TOTAL THIS CASE		7.339	8.543	9.327	8.395	26.265	33.505	0.
INDIRECT COSTS	SPARES						0.147	
	START UP						0.252	
	SPARES+STARTUP						0.399	
	CONTINGENCY						5.101	
	ENGINEERING SERVICES						2.040	
	A-E FEE						1.700	
GRAND TOTAL							42.844	

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PROCESS 20461

ECS PFBSTM PROCESS MEGAWATTS 28.50 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 659.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 378. KW FUEL= 110868.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS, MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	0.582	0.116	0.378	0.341	0.835	1.418	12.786
	3.	LIMESTONE/DOLOMITE-U	0.363	0.224	0.198	0.179	0.601	0.964	8.697
		ISLAND TOTAL	0.946	0.341	0.577	0.519	1.437	2.382	21.484
2. FUEL-UTILIZATION-CLE	24.	COAL-FIRED-PFB-BOILE	8.305	1.578	1.163	1.046	3.787	12.092	109.062
		ISLAND TOTAL	8.305	1.578	1.163	1.046	3.787	12.092	109.062
4. BOTTOMING-CYCLE	43.	EXPANSION-TURBINE-GE	2.898	1.219	0.821	0.739	2.779	5.677	51.203
		ISLAND TOTAL	2.898	1.219	0.821	0.739	2.779	5.677	51.203
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	3.088	0.	0.	0.	0.	3.088	27.851
		ISLAND TOTAL	3.088	0.	0.	0.	0.	3.088	27.851
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	3.863	4.508	4.848	4.363	13.718	17.582	158.583
		ISLAND TOTAL	12.168	6.086	6.010	5.409	17.505	29.373	267.646
TOTAL THIS CASE			19.099	7.645	7.408	6.667	21.721	40.820	60.138
INDIRECT COSTS		SPARES						0.382	
		START UP						0.342	
		SPARES+STARTUP						0.724	
		CONTINGENCY						6.231	
		ENGINEERING SERVICES						2.493	
		A-E FEE						2.077	
GRAND TOTAL								52.345	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20461

ECS STM141 PROCESS MEGAWATTS 56.07 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 659.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1008. KW FUEL= 295495.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.848	0.130	0.421	0.379	0.929	1.577	5.338
	3. LIMESTONE/DOLOMITE-U	0.397	0.236	0.209	0.188	0.633	1.029	3.484
	ISLAND TOTAL	1.044	0.366	0.630	0.367	1.562	2.607	8.821
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	12.637	3.159	2.588	2.329	8.076	20.713	70.095
	ISLAND TOTAL	12.637	3.159	2.588	2.329	8.076	20.713	70.095
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	6.579	0.	0.	0.	0.	6.579	22.263
	ISLAND TOTAL	6.579	0.	0.	0.	0.	6.579	22.263
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.921	0.872	0.785	2.577	2.577	8.722
	ISLAND TOTAL	0.	0.921	0.872	0.785	2.577	2.577	8.722
TOTAL THIS CASE		20.260	4.446	4.089	3.680	12.216	32.476	12.455
INDIRECT COSTS	SPARES						0.405	
	START UP						0.288	
	SPARES+STARTUP						0.693	
	CONTINGENCY						4.975	
	ENGINEERING SERVICES						1.990	
	A-E FEE						1.658	
GRAND TOTAL							41.793	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20461

ECS STM141 PROCESS MEGAWATTS 28.50 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 659.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 495. KW FUEL= 145035.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.581	0.116	0.378	0.340	0.834	1.415	9.759
	3. LIMESTONE/DOLOMITE-U	0.363	0.224	0.198	0.178	0.601	0.963	6.642
	ISLAND TOTAL	0.944	0.340	0.576	0.518	1.435	2.379	16.401
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	6.250	1.562	1.283	1.155	4.000	10.250	70.674
	ISLAND TOTAL	6.250	1.562	1.283	1.155	4.000	10.250	70.674
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.085	0.	0.	0.	0.	4.085	28.165
	ISLAND TOTAL	4.085	0.	0.	0.	0.	4.085	28.165
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.284	3.793	4.105	3.695	11.593	14.877	102.573
	ISLAND TOTAL	9.534	5.355	5.388	4.849	15.583	25.127	173.247
6. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.826	0.779	0.701	2.307	2.307	15.905
	ISLAND TOTAL	0.	0.826	0.779	0.701	2.307	2.307	15.905
TOTAL THIS CASE		14.563	6.522	6.743	6.069	19.334	33.897	41.846
INDIRECT COSTS	SPARES						0.291	
	START UP						0.278	
	SPARES+STARTUP						0.570	
	CONTINGENCY						5.170	
	ENGINEERING SERVICES						2.068	
	A-E FEE						1.723	
GRAND TOTAL							43.426	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20461

ECS STM141 PROCESS MEGAWATTS 58.07 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 659.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 1008. KW FUEL= 295495.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	0.648	0.130	0.421	0.379	0.929	1.577	5.338
	3.	LIMESTONE/DOLOMITE-U	0.397	0.236	0.209	0.168	0.633	1.029	3.484
		ISLAND TOTAL	1.044	0.366	0.630	0.567	1.562	2.607	8.821
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	8.289	8.297	9.367	8.430	26.094	34.383	116.356
		ISLAND TOTAL	8.289	8.297	9.367	8.430	26.094	34.383	116.356
3. ENERGY-CONVERSIO	30.	STEAM-TURBINE-GENERA	6.579	0.	0.	0.	0.	6.579	22.263
		ISLAND TOTAL	6.579	0.	0.	0.	0.	6.579	22.263
8. BALANCE-OF-PLANT	83.	STRUCTURES-MISCELLAN	0.	0.921	0.872	0.785	2.577	2.577	8.722
		ISLAND TOTAL	0.	0.921	0.872	0.785	2.577	2.577	8.722
TOTAL THIS CASE			15.912	9.583	10.868	9.782	30.233	46.145	33.102
INDIRECT COSTS		SPARES						0.318	
		START UP						0.364	
		SPARES+STARTUP						0.682	
		CONTINGENCY						7.024	
		ENGINEERING SERVICES						2.810	
		A-E FEE						2.341	
GRAND TOTAL								59.002	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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PROCESS 20821

ECS ONOCGN COGENERATI — PROCESS MEGAWATTS 0. — SITE FUEL= COAL-AFB — PROCESS TEMP. 250. — COGEN FUEL BTU=10**6= 0. — PROCESS HEAT(BTU=10**6) 88. — KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978 **********						
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.089	0.018	0.058	0.052	0.127	0.216	0.
	3. LIMESTONE/DOLOMITE-U	0.077	0.089	0.081	0.073	0.243	0.319	0.
	ISLAND TOTAL	0.165	0.107	0.138	0.125	0.370	0.536	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	2.677	0.669	0.681	0.613	1.963	4.640	0.
	ISLAND TOTAL	2.677	0.669	0.681	0.613	1.963	4.640	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.126	0.111	0.100	0.336	0.336	0.
	ISLAND TOTAL	0.	0.126	0.111	0.100	0.336	0.336	0.
TOTAL THIS CASE		2.842	0.902	0.930	0.837	2.670	5.512	0.
INDIRECT COSTS	SPARES						0.057	
	START UP						0.047	
	SPARES+STARTUP						0.104	
	CONTINGENCY						0.842	
	ENGINEERING SERVICES						0.337	
	A-E FEE						0.281	
GRAND TOTAL							7.075	

$7.075/86 = 82.3¢/10^6 Btu/hr$

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20821

ECS DEADV3 PROCESS MEGAWATTS 6.04 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 86.
DIESEL-ADVANCED-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 56. KW FUEL= 16278.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.070	0.014	0.084	0.076	0.175	0.245	15.043
	ISLAND TOTAL	0.070	0.014	0.084	0.076	0.175	0.245	15.043
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	2.905	0.288	0.288	0.259	0.835	3.740	229.785
	ISLAND TOTAL	2.905	0.288	0.288	0.259	0.835	3.740	229.785
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.208	0.431	0.658	0.592	1.681	1.889	116.050
	ISLAND TOTAL	0.208	0.431	0.658	0.592	1.681	1.889	116.050
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.179	0.157	0.141	0.477	0.477	29.327
	80. MASTER-CONTROL	0.151	0.023	0.038	0.034	0.094	0.245	15.059
	81. ELECTRIC-SWITCHGEAR-	0.	0.036	0.036	0.032	0.103	0.103	6.350
	82. INTERCONNECTING-PIPI	0.	0.073	0.073	0.068	0.213	0.213	13.077
	83. STRUCTURES-MISCELLAN	0.	0.159	0.141	0.127	0.427	0.427	26.212
	ISLAND TOTAL	0.151	0.470	0.444	0.400	1.315	1.465	90.024
TOTAL THIS CASE		3.335	1.203	1.475	1.327	4.005	7.340	81.538
INDIRECT COSTS	SPARES						0.067	
	START UP						0.060	
	SPARES+STARTUP						0.127	
	CONTINGENCY						1.120	
	ENGINEERING SERVICES						0.448	
	A-E FEE						0.373	
GRAND TOTAL							9.408	

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I SE-PEG ADV. DES. ENGRG.

PROCESS 20821

ECS DESOA3 PROCESS MEGAWATTS 6.04 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 86.
DIESEL-SOA-3 SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 57. KW FUEL= 16729.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.071	0.014	0.085	0.076	0.176	0.246	14.723
	ISLAND TOTAL	0.071	0.014	0.085	0.076	0.176	0.246	14.723
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	2.132	0.405	0.405	0.365	1.175	3.307	197.700
	ISLAND TOTAL	2.132	0.405	0.405	0.365	1.175	3.307	197.700
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.208	0.430	0.657	0.591	1.678	1.886	112.749
	ISLAND TOTAL	0.208	0.430	0.657	0.591	1.678	1.886	112.749
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.181	0.158	0.142	0.482	0.482	28.783
	80. MASTER-CONTROL	0.151	0.023	0.038	0.034	0.094	0.245	14.640
	81. ELECTRIC-SWITCHGEAR-	0.	0.036	0.036	0.032	0.103	0.103	6.179
	82. INTERCONNECTING-PIPI	0.	0.073	0.073	0.066	0.213	0.213	12.708
	83. STRUCTURES-MISCELLAN	0.	0.161	0.142	0.128	0.431	0.431	25.735
	ISLAND TOTAL	0.151	0.473	0.447	0.402	1.322	1.473	88.045
TOTAL THIS CASE		2.562	1.323	1.594	1.435	4.351	6.913	85.751
INDIRECT COSTS	SPARES						0.051	
	START UP						0.055	
	SPARES+STARTUP						0.106	
	CONTINGENCY						1.053	
	ENGINEERING SERVICES						0.421	
	A-E FEE						0.351	
GRAND TOTAL							8.844	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20821

ECS FCPADS PROCESS MEGAWATTS 6.04 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 86.
FUEL-CL-PHOSACID-DS SITE FUEL* DISTILLA COGEN FUEL BTU*10**6* 57. KW FUEL* 16724.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.071	0.014	0.085	0.077	0.176	0.247	14.759
		ISLAND TOTAL	0.071	0.014	0.085	0.077	0.176	0.247	14.759
2. FUEL-UTILIZATION-CLE	28.	REFORMER-SHIFTER-AND	0.774	0.077	0.116	0.104	0.298	1.072	64.095
		ISLAND TOTAL	0.774	0.077	0.116	0.104	0.298	1.072	64.095
3. ENERGY-CONVERSION	36.	FUEL-CELLS-PHOSPHORI	0.973	0.097	0.146	0.131	0.375	1.348	80.603
		ISLAND TOTAL	0.973	0.097	0.146	0.131	0.375	1.348	80.603
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.209	0.432	0.659	0.594	1.685	1.894	113.236
		ISLAND TOTAL	0.983	0.509	0.776	0.698	1.983	2.966	177.331
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	0.181	0.159	0.143	0.483	0.483	28.881
	80.	MASTER-CONTROL	0.151	0.023	0.038	0.034	0.094	0.245	14.678
	81.	ELECTRIC-SWITCHGEAR-	0.	0.036	0.036	0.032	0.103	0.103	6.181
	82.	INTERCONNECTING-PIPI	0.	0.074	0.074	0.066	0.213	0.213	12.754
	83.	STRUCTURES-MISCELLAN	0.	0.161	0.143	0.128	0.432	0.432	25.826
		ISLAND TOTAL	0.151	0.474	0.448	0.403	1.326	1.477	88.319
TOTAL THIS CASE			2.178	1.095	1.455	1.309	3.860	6.037	78.298
INDIRECT COSTS		SPARES						0.044	
		START UP						0.047	
		SPARES+STARTUP						0.091	
		CONTINGENCY						0.919	
		ENGINEERING SERVICES						0.368	
		A-E FEE						0.306	
GRAND TOTAL								7.722	

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GENERAL ELECTRIC COMPANY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

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PROCESS 20821

ECS GTR212 PROCESS MEGAWATTS 6.04 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 66.
GT-6ORE-12/2200D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 62. KW FUEL= 18300.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.071	0.014	0.085	0.076	0.175	0.246	13.442
	ISLAND TOTAL	0.071	0.014	0.085	0.076	0.175	0.246	13.442
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.536	0.241	0.135	0.122	0.498	2.034	111.142
	ISLAND TOTAL	1.536	0.241	0.135	0.122	0.498	2.034	111.142
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.193	0.172	0.369	0.332	0.872	1.065	58.199
	ISLAND TOTAL	0.193	0.172	0.369	0.332	0.872	1.065	58.199
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.198	0.411	0.627	0.564	1.601	1.800	98.335
	ISLAND TOTAL	0.198	0.411	0.627	0.564	1.601	1.800	98.335
6. BALANCE-OF-PLANT	64. POWER-PLANT-STRUCTUR	0.	0.060	0.052	0.047	0.159	0.159	8.667
	80. MASTER-CONTROL	0.048	0.007	0.012	0.011	0.030	0.079	4.301
	81. ELECTRIC-SWITCHGEAR-	0.	0.012	0.012	0.011	0.034	0.034	1.864
	82. INTERCONNECTING-PIPI	0.	0.047	0.047	0.042	0.135	0.135	7.386
	83. STRUCTURES-MISCELLAN	0.	0.160	0.142	0.128	0.430	0.430	23.480
	ISLAND TOTAL	0.048	0.285	0.264	0.238	0.788	0.836	45.697
TOTAL THIS CASE		2.047	1.123	1.480	1.332	3.934	5.981	72.778
INDIRECT COSTS	SPARES						0.041	
	START UP						0.046	
	SPARES+STARTUP						0.087	
	CONTINGENCY						0.910	
	ENGINEERING SERVICES						0.364	
	A-E FEE						0.303	
GRAN TOTAL							7.646	

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PROCESS 20821

ECS GTRA12 PROCESS MEGAWATTS 6.04 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 86.
GT-85RE-12/2200D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 58. KW FUEL= 16869.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.071	0.014	0.085	0.076	0.175	0.245	14.553
	ISLAND TOTAL	0.071	0.014	0.085	0.076	0.175	0.245	14.553
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.653	0.259	0.146	0.131	0.535	2.188	129.719
	ISLAND TOTAL	1.653	0.259	0.146	0.131	0.535	2.188	129.719
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.176	0.157	0.341	0.307	0.805	0.982	58.188
	ISLAND TOTAL	0.176	0.157	0.341	0.307	0.805	0.982	58.188
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.206	0.426	0.650	0.585	1.662	1.867	110.697
	ISLAND TOTAL	0.206	0.426	0.650	0.585	1.662	1.867	110.697
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.059	0.052	0.047	0.158	0.158	9.374
	80. MASTER-CONTROL	0.049	0.007	0.012	0.011	0.031	0.080	4.764
	81. ELECTRIC-SWITCHGEAR-	0.	0.012	0.012	0.011	0.034	0.034	2.022
	82. INTERCONNECTING-PIPI	0.	0.048	0.048	0.043	0.139	0.139	8.251
	83. STRUCTURES-MISCELLAN	0.	0.160	0.141	0.127	0.428	0.428	25.392
	ISLAND TOTAL	0.049	0.286	0.265	0.239	0.791	0.840	49.802
TOTAL THIS CASE		2.155	1.142	1.487	1.338	3.968	6.123	79.342
INDIRECT COSTS	SPARES						0.043	
	START UP						0.048	
	SPARES+STARTUP						0.091	
	CONTINGENCY						0.932	
	ENGINEERING SERVICES						0.373	
	A-E FEE						0.311	
GRAND TOTAL							7.829	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20821

ECS STIRL PROCESS MEGAWATTS 6.04 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 86.
STIRLING-1472F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 65. KW FUEL= 19161.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST.	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.070	0.014	0.084	0.076	0.174	0.244	12.742
	ISLAND TOTAL	0.070	0.014	0.084	0.076	0.174	0.244	12.742
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	0.077	0.009	0.009	0.008	0.027	0.104	5.405
	29. STIRLING-ENGINE-COMB	1.484	0.178	0.178	0.160	0.516	2.000	104.377
	21. OIL-FIRED-BOILER	0.190	0.394	0.601	0.541	1.536	1.726	90.086
	ISLAND TOTAL	1.751	0.581	0.788	0.710	2.079	3.830	199.869
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.179	0.156	0.141	0.475	0.475	24.808
	80. MASTER-CONTROL	0.143	0.022	0.036	0.032	0.090	0.233	12.167
	81. ELECTRIC-SWITCHGEAR-	0.	0.036	0.036	0.032	0.103	0.103	5.394
	82. INTERCONNECTING-PIPI	0.	0.068	0.068	0.062	0.198	0.198	10.350
	83. STRUCTURES-MISCELLAN	0.	0.158	0.140	0.126	0.425	0.425	22.169
	ISLAND TOTAL	0.143	0.463	0.436	0.393	1.291	1.435	74.888
TOTAL THIS CASE		1.964	1.058	1.309	1.178	3.544	5.509	61.478
INDIRECT COSTS	SPARES						0.039	
	START UP						0.043	
	SPARES+STARTUP						0.083	
	CONTINGENCY						0.839	
	ENGINEERING SERVICES						0.335	
	A-E FEE						0.280	
GRAND TOTAL							7.045	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 20821

ECS STM088 PROCESS MEGAWATTS 5.98 PROCESS TEMP. 250. PROCESS HEAT(BTU*10**6) 89.
STM-TURB-865/825F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 125. KW FUEL= 36686.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.068	0.014	0.082	0.074	0.169	0.237	6.462
	ISLAND TOTAL	0.068	0.014	0.082	0.074	0.169	0.237	6.462
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.421	0.598	0.859	0.773	2.229	2.650	72.240
	ISLAND TOTAL	0.421	0.598	0.859	0.773	2.229	2.650	72.240
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	1.294	0.	0.	0.	0.	1.294	35.268
	ISLAND TOTAL	1.294	0.	0.	0.	0.	1.294	35.268
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.152	0.134	0.121	0.406	0.406	11.071
	ISLAND TOTAL	0.	0.152	0.134	0.121	0.406	0.406	11.071
TOTAL THIS CASE		1.783	0.763	1.074	0.967	2.804	4.587	26.358
INDIRECT COSTS	SPARES						0.036	
	START UP						0.036	
	SPARES+STARTUP						0.072	
	CONTINGENCY						0.699	
	ENGINEERING SERVICES						0.280	
	A-E FEE						0.233	
GRAND TOTAL							5.671	

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PROCESS 22601

ECS ONOCON PROCESS MEGAWATTS 0. PROCESS TEMP. 341. PROCESS HEAT(BTU*10**6) 158.
N O C O G E N E R A T I SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********************COSTS - MILLIONS 1978$************						
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.150	0.030	0.098	0.088	0.216	0.366	0.
	3. LIMESTONE/DOLOMITE-U	0.118	0.116	0.104	0.093	0.313	0.431	0.
	ISLAND TOTAL	0.269	0.146	0.201	0.181	0.528	0.797	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.058	2.308	2.545	2.290	7.143	9.202	0.
	ISLAND TOTAL	2.058	2.308	2.545	2.290	7.143	9.202	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.213	0.191	0.172	0.576	0.576	0.
	ISLAND TOTAL	0.	0.213	0.191	0.172	0.576	0.576	0.
TOTAL THIS CASE		2.327	2.667	2.937	2.644	8.248	10.575	0.
INDIRECT COSTS	SPARES						0.047	
	START UP						0.079	
	SPARES+STARTUP						0.126	
	CONTINGENCY						1.605	
	ENGINEERING SERVICES						0.642	
	A-E FEE						0.535	
GRAND TOTAL							13.483	

PROCESS 22601

ECS DESGA3 PROCESS MEGAWATTS 6.20 PROCESS TEMP. 341. PROCESS HEAT(BTU*10**6) 158.
DIESEL-SGA-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 59. KW FUEL= 17172.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.097	0.019	0.117	0.105	0.242	0.339	19.746
		ISLAND TOTAL	0.097	0.019	0.117	0.105	0.242	0.339	19.746
3. ENERGY-CONVERSION	32.	DIESEL-ENGINE-GENERA	2.189	0.416	0.416	0.374	1.206	3.395	197.696
		ISLAND TOTAL	2.189	0.416	0.416	0.374	1.206	3.395	197.696
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.343	0.710	1.084	0.975	2.769	3.112	181.215
		ISLAND TOTAL	0.343	0.710	1.084	0.975	2.769	3.112	181.215
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	0.289	0.253	0.227	0.769	0.769	44.776
	80.	MASTER-CONTROL	0.212	0.032	0.053	0.048	0.133	0.345	20.071
	81.	ELECTRIC-SWITCHGEAR-	0.	0.037	0.037	0.033	0.106	0.106	6.164
	82.	INTERCONNECTING-PIPI	0.	0.119	0.119	0.107	0.344	0.344	20.049
	83.	STRUCTURES-MISCELLAN	0.	0.258	0.233	0.210	0.701	0.701	40.837
		ISLAND TOTAL	0.212	0.734	0.694	0.625	2.053	2.265	131.897
TOTAL THIS CASE			2.841	1.880	2.310	2.079	6.269	9.111	121.093
INDIRECT COSTS		SPARES						0.057	
		START UP						0.070	
		SPARES+STARTUP						0.127	
		CONTINGENCY						1.386	
		ENGINEERING SERVICES						0.854	
		A-E FEE						0.462	
GRAND TOTAL								11.640	

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PROCESS 22601

ECS FCMCDS PROCESS MEGAWATTS 6.20 PROCESS TEMP. 341. PROCESS HEAT(BTU*10**6) 158.
FUEL-CL-MOLTCARB-DS SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 51. KW FUEL= 15046.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.095	0.019	0.114	0.103	0.236	0.332	22.034
		ISLAND TOTAL	0.095	0.019	0.114	0.103	0.236	0.332	22.034
2. FUEL-UTILIZATION-CLE	28.	REFORMER-SHIFTER-AND	0.705	0.070	0.106	0.095	0.271	0.976	64.856
		ISLAND TOTAL	0.705	0.070	0.106	0.095	0.271	0.976	64.856
3. ENERGY-CONVERSION	35.	FUEL-CELLS-MOLTEN-CA	1.211	0.121	0.182	0.163	0.466	1.677	111.434
		ISLAND TOTAL	1.211	0.121	0.182	0.163	0.466	1.677	111.434
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.341	0.706	1.078	0.970	2.754	3.095	205.674
		ISLAND TOTAL	1.046	0.776	1.183	1.065	3.025	4.070	270.529
8. BALANCE-OF-PLANT	64.	POWER-PLANT-STRUCTUR	0.	0.279	0.245	0.220	0.744	0.744	49.447
	80.	MASTER-CONTROL	0.211	0.032	0.053	0.048	0.132	0.343	22.811
	81.	ELECTRIC-SWITCHGEAR-	0.	0.037	0.037	0.033	0.106	0.106	7.035
	82.	INTERCONNECTING-PIPI	0.	0.118	0.118	0.106	0.342	0.342	22.746
	83.	STRUCTURES-MISCELLAN	0.	0.250	0.225	0.203	0.678	0.678	45.035
		ISLAND TOTAL	0.211	0.716	0.677	0.609	2.002	2.213	147.074
TOTAL THIS CASE			2.563	1.632	2.156	1.941	5.729	8.292	128.974
INDIRECT COSTS		SPARES						0.051	
		START UP						0.064	
		SPARES+STARTUP						0.115	
		CONTINGENCY						1.261	
		ENGINEERING SERVICES						0.504	
		A-E FEE						0.420	
GRAND TOTAL								10.592	

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PROCESS 22601

ECS STIRL PROCESS MEGAWATTS 6.20 PROCESS TEMP. 341. PROCESS HEAT(BTU*10**6) 158.
STIRLING-1472F SITE FUEL= COAL COGEN FUEL BTU*10**6= 82. KW FUEL= 24048.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.175	0.035	0.114	0.103	0.252	0.427	17.761
	ISLAND TOTAL	0.175	0.035	0.114	0.103	0.252	0.427	17.761
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	1.967	0.184	0.325	0.292	0.802	2.769	115.143
	29. STIRLING-ENGINE-COMB	1.862	0.223	0.223	0.201	0.648	2.510	104.377
	22. COAL-FIRED-BOILER	1.729	1.918	2.130	1.917	5.964	7.693	319.899
	ISLAND TOTAL	5.559	2.325	2.678	2.410	7.413	12.972	539.420
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.279	0.244	0.219	0.742	0.742	30.854
	80. MASTER-CONTROL	0.193	0.029	0.048	0.043	0.120	0.313	13.027
	81. ELECTRIC-SWITCHGEAR-	0.	0.037	0.037	0.033	0.106	0.106	4.402
	82. INTERCONNECTING-PIPI	0.	0.104	0.104	0.093	0.301	0.301	12.512
	83. STRUCTURES-MISCELLAN	0.	0.249	0.224	0.202	0.676	0.676	28.098
	ISLAND TOTAL	0.193	0.697	0.657	0.591	1.945	2.138	88.894
TOTAL THIS CASE		5.927	3.058	3.449	3.104	9.610	15.537	129.062
INDIRECT COSTS	SPARES						0.119	
	START UP						0.124	
	SPARES+STARTUP						0.243	
	CONTINGENCY						2.367	
	ENGINEERING SERVICES						0.947	
	A-E FEE						0.789	
GRAND TOTAL							19.883	

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PROCESS 22601

ECS STM088 PROCESS MEGAWATTS 7.32 PROCESS TEMP. 341. PROCESS HEAT(BTU*10**6) 158.
STM-TURB-865/825F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 215. KW FUEL= 63085.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.171	0.034	0.111	0.100	0.245	0.416	6.581
	3. LIMESTONE/DOLOMITE-U	0.131	0.123	0.110	0.099	0.333	0.464	7.355
	ISLAND TOTAL	0.302	0.157	0.221	0.199	0.577	0.879	13.936
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	3.933	0.983	0.904	0.813	2.700	6.634	105.154
	ISLAND TOTAL	3.933	0.983	0.904	0.813	2.700	6.634	105.154
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	1.501	0.	0.	0.	0.	1.501	23.796
	ISLAND TOTAL	1.501	0.	0.	0.	0.	1.501	23.796
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.242	0.218	0.196	0.656	0.656	10.405
	ISLAND TOTAL	0.	0.242	0.218	0.196	0.656	0.656	10.405
TOTAL THIS CASE		5.736	1.383	1.343	1.208	3.934	9.670	19.156
INDIRECT COSTS	SPARES						0.116	
	START UP						0.085	
	SPARES+STARTUP						0.199	
	CONTINGENCY						1.480	
	ENGINEERING SERVICES						0.592	
	A-E FEE						0.493	
GRAND TOTAL							12.436	

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PROCESS 24211

ECS ONOCGN NO COGENERATI — PROCESS MEGAWATTS 0. — SITE FUEL= RESIDUAL — PROCESS TEMP. 353. — COGEN FUEL BTU*10**3= — PROCESS HEAT(BTU*10**6) 30. — 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.033	0.007	0.039	0.035	0.081	0.114	0.
	ISLAND TOTAL	0.033	0.007	0.039	0.035	0.081	0.114	0.
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.129	0.268	0.408	0.368	1.043	1.173	0.
	ISLAND TOTAL	0.129	0.268	0.408	0.368	1.043	1.173	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.051	0.043	0.039	0.132	0.132	0.
	ISLAND TOTAL	0.	0.051	0.043	0.039	0.132	0.132	0.
TOTAL THIS CASE		0.162	0.325	0.491	0.442	1.257	1.419	0.
INDIRECT COSTS	SPARES						0.003	
	START UP						0.010	
	SPARES+STARTUP						0.013	
	CONTINGENCY						0.215	
	ENGINEERING SERVICES						0.086	
	A-E FEE						0.072	
GRAND TOTAL							1.804	

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PROCESS 24211

ECS STIRL PROCESS MEGAWATTS 1.50 PROCESS TEMP. 353. PROCESS HEAT(BTU*10**6) 30.
STIRLING-1472F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 20. KW FUEL= 8881.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.037	0.007	0.045	0.040	0.092	0.130	22.027
	ISLAND TOTAL	0.037	0.007	0.045	0.040	0.092	0.130	22.027
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	0.025	0.003	0.003	0.003	0.009	0.034	5.857
	29. STIRLING-ENGINE-COMB	0.461	0.059	0.059	0.053	0.172	0.633	107.601
	21. OIL-FIRED-BOILER	0.102	0.212	0.323	0.291	0.826	0.928	157.814
	ISLAND TOTAL	0.588	0.274	0.386	0.347	1.007	1.595	271.273
8. BALANCE-OF-PLANT	64. POWER-PLANT-STRUCTUR	0.	0.071	0.062	0.056	0.188	0.188	31.955
	80. MASTER-CONTROL	0.068	0.010	0.017	0.015	0.042	0.110	18.730
	81. ELECTRIC-SWITCHGEAR-	0.	0.010	0.010	0.009	0.029	0.029	4.934
	82. INTERCONNECTING-PIPI	0.	0.024	0.024	0.021	0.069	0.069	11.710
	83. STRUCTURES-MISCELLAN	0.	0.062	0.053	0.047	0.161	0.161	27.459
	ISLAND TOTAL	0.068	0.176	0.165	0.149	0.490	0.557	94.789
TOTAL THIS CASE		0.693	0.458	0.595	0.536	1.589	2.282	91.112
INDIRECT COSTS	SPARES						0.014	
	START UP						0.017	
	SPARES+STARTUP						0.031	
	CONTINGENCY						0.347	
	ENGINEERING SERVICES						0.139	
	A-E FEE						0.116	
GRAND TOTAL							2.915	

GENERAL ELECTRIC COMPANY
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PROCESS 24361

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 406. PROCESS HEAT(BTU*10**6) 75.
N O C O G E N E R A T I SITE FUEL* COAL-AFB COGEN FUEL BTU*10**6* 0. KW FUEL* 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********************COSTS - MILLIONS 1978$************						
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.079	0.016	0.051	0.046	0.113	0.192	0.
	3. LIMESTONE/DOLOMITE-U	0.069	0.084	0.076	0.069	0.229	0.299	0.
	ISLAND TOTAL	0.148	0.100	0.128	0.115	0.342	0.491	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	2.470	0.617	0.640	0.576	1.834	4.304	0.
	ISLAND TOTAL	2.470	0.617	0.640	0.576	1.834	4.304	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.112	0.098	0.088	0.298	0.298	0.
	ISLAND TOTAL	0.	0.112	0.098	0.088	0.298	0.298	0.
TOTAL THIS CASE		2.618	0.830	0.866	0.779	2.474	5.092	0.
INDIRECT COSTS	SPARES						0.052	
	START UP						0.043	
	SPARES+STARTUP						0.095	
	CONTINGENCY						0.778	
	ENGINEERING SERVICES						0.311	
	A-E FEE						0.259	
GRAND TOTAL							6.537	

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PROCESS 24361

ECS STIRL PROCESS MEGAWATTS 3.00 PROCESS TEMP. 406. PROCESS HEAT(BTU*10**6) 75.
STIRLING-1472F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 42. KW FUEL= 12393.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.062	0.012	0.074	0.067	0.154	0.216	17.398
	ISLAND TOTAL	0.062	0.012	0.074	0.067	0.154	0.216	17.398
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	0.050	0.006	0.006	0.005	0.017	0.067	5.405
	29. STIRLING-ENGINE-GENR	0.960	0.115	0.115	0.104	0.334	1.294	104.377
	21. OIL-FIRED-BOILER	0.186	0.385	0.588	0.529	1.503	1.689	136.303
	ISLAND TOTAL	1.195	0.506	0.709	0.638	1.854	3.050	246.086
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.149	0.130	0.117	0.396	0.396	31.974
	80. MASTER-CONTROL	0.118	0.018	0.030	0.027	0.074	0.192	15.520
	81. ELECTRIC-SWITCHGEAR-	0.	0.019	0.019	0.017	0.055	0.055	4.406
	82. INTERCONNECTING-PIPI	0.	0.052	0.052	0.047	0.151	0.151	12.199
	83. STRUCTURES-MISCELLAN	0.	0.132	0.116	0.104	0.351	0.351	28.353
	ISLAND TOTAL	0.118	0.369	0.346	0.312	1.027	1.146	92.452
TOTAL THIS CASE		1.376	0.888	1.130	1.017	3.035	4.411	82.073
INDIRECT COSTS	SPARES						0.026	
	START UP						0.034	
	SPARES+STARTUP						0.061	
	CONTINGENCY						0.671	
	ENGINEERING SERVICES						0.268	
	A-E FEE						0.224	
GRAND TOTAL							5.635	

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PROCESS 24921

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 406. PROCESS HEAT(BTU*10**6) 37.
N O C O G E N E R A T I SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.043	0.009	0.028	0.025	0.061	0.104	0.
	3. LIMESTONE/DOLOMITE-U	0.042	0.063	0.057	0.051	0.171	0.213	0.
	ISLAND TOTAL	0.085	0.071	0.085	0.076	0.232	0.317	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	1.630	0.408	0.465	0.419	1.291	2.922	0.
	ISLAND TOTAL	1.630	0.408	0.465	0.419	1.291	2.922	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.061	0.052	0.047	0.159	0.159	0.
	ISLAND TOTAL	0.	0.061	0.052	0.047	0.159	0.159	0.
TOTAL THIS CASE		1.715	0.540	0.602	0.542	1.683	3.398	0.
INDIRECT COSTS	SPARES						0.034	
	START UP						0.029	
	SPARES+STARTUP						0.063	
	CONTINGENCY						0.519	
	ENGINEERING SERVICES						0.208	
	A-E FEE						0.173	
GRAND TOTAL							4.361	

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PROCESS 24921

ECS GTSOAR PROCESS MEGAWATTS 0.41 PROCESS TEMP. 406. PROCESS HEAT(BTU*10**6) 37.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 5. KW FUEL= 1424.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.038	0.008	0.046	0.041	0.095	0.133	93.170
		ISLAND TOTAL	0.038	0.008	0.046	0.041	0.095	0.133	93.170
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	0.172	0.038	0.020	0.018	0.077	0.249	175.125
		ISLAND TOTAL	0.172	0.038	0.020	0.018	0.077	0.249	175.125
4. BOTTOMING-CYCLE	40.	HEAT-RECOVERY-STEAM-	0.050	0.047	0.122	0.109	0.278	0.328	230.563
		ISLAND TOTAL	0.050	0.047	0.122	0.109	0.278	0.328	230.563
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.142	0.294	0.449	0.404	1.147	1.289	905.037
		ISLAND TOTAL	0.142	0.294	0.449	0.404	1.147	1.289	905.037
8. BALANCE-OF-PLANT	64.	POWER-PLANT-STRUCTUR	0.	0.024	0.021	0.019	0.064	0.064	45.104
	80.	MASTER-CONTROL	0.024	0.004	0.006	0.006	0.015	0.040	27.911
	81.	ELECTRIC-SWITCHGEAR-	0.	0.001	0.001	0.001	0.003	0.003	2.074
	82.	INTERCONNECTING-PIPI	0.	0.018	0.018	0.016	0.052	0.052	36.205
	83.	STRUCTURES-MISCELLAN	0.	0.064	0.055	0.049	0.168	0.168	117.623
		ISLAND TOTAL	0.024	0.110	0.101	0.091	0.302	0.326	228.916
TOTAL THIS CASE			0.427	0.497	0.737	0.664	1.698	2.325	465.944
INDIRECT COSTS		SPARES						0.009	
		START UP						0.017	
		SPARES+STARTUP						0.025	
		CONTINGENCY						0.353	
		ENGINEERING SERVICES						0.141	
		A-E FEE						0.118	
GRAND TOTAL								2.962	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 24921

ECS STIRL PROCESS MEGAWATTS 5.39 PROCESS TEMP. 406. PROCESS HEAT(BTU*10**6) 37.
STIRLING-1472F SITE FUEL= COAL COGEN FUEL BTU*10**6= 76. KW FUEL= 22266.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1976$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.069	0.014	0.045	0.041	0.099	0.169	7.580
	ISLAND TOTAL	0.069	0.014	0.045	0.041	0.099	0.169	7.580
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	1.667	0.178	0.312	0.281	0.771	2.638	118.475
	29. STIRLING-ENGINE-COMB	1.724	0.207	0.207	0.186	0.600	2.324	104.377
	ISLAND TOTAL	3.591	0.385	0.519	0.467	1.371	4.962	222.852
6. BALANCE-OF-PLANT	64. POWER-PLANT-STRUCTUR	0.	0.112	0.098	0.088	0.298	0.298	13.380
	80. MASTER-CONTROL	0.084	0.013	0.021	0.019	0.052	0.136	6.124
	81. ELECTRIC-SWITCHGEAR-	0.	0.032	0.032	0.029	0.093	0.093	4.184
	82. INTERCONNECTING-PIPI	0.	0.032	0.032	0.029	0.093	0.093	4.180
	83. STRUCTURES-MISCELLAN	0.	0.098	0.086	0.077	0.261	0.261	11.723
	ISLAND TOTAL	0.084	0.287	0.269	0.242	0.798	0.882	39.592
TOTAL THIS CASE		3.744	0.686	0.833	0.749	2.268	6.012	33.659
INDIRECT COSTS	SPARES						0.075	
	START UP						0.053	
	SPARES+STARTUP						0.128	
	CONTINGENCY						0.921	
	ENGINEERING SERVICES						0.368	
	A-E FEE						0.307	
GRAND TOTAL							7.736	

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PROCESS 24921

ECS STIRL PROCESS MEGAWATTS 5.00 PROCESS TEMP. 406. PROCESS HEAT(BTU*10**6) 37.
STIRLING-1472F SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 70. KW FUEL= 20655.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.050	0.010	0.060	0.054	0.124	0.174	8.436
	ISLAND TOTAL	0.050	0.010	0.060	0.054	0.124	0.174	8.436
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	0.080	0.010	0.010	0.009	0.028	0.108	5.219
	29. STIRLING-ENGINE-COMB	1.599	0.192	0.192	0.173	0.557	2.156	104.377
	21. OIL-FIRED-BOILER	0.029	0.061	0.093	0.084	0.237	0.266	12.902
	ISLAND TOTAL	1.709	0.262	0.294	0.265	0.822	2.530	122.498
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.109	0.095	0.086	0.290	0.290	14.044
	80. MASTER-CONTROL	0.083	0.012	0.021	0.019	0.052	0.135	6.538
	81. ELECTRIC-SWITCHGEAR-	0.	0.030	0.030	0.027	0.087	0.087	4.212
	82. INTERCONNECTING-PIPI	0.	0.032	0.032	0.028	0.092	0.092	4.444
	83. STRUCTURES-MISCELLAN	0.	0.096	0.083	0.075	0.254	0.254	12.291
	ISLAND TOTAL	0.083	0.279	0.261	0.235	0.775	0.858	41.529
TOTAL THIS CASE		1.842	0.551	0.615	0.554	1.720	3.562	26.812
INDIRECT COSTS	SPARES						0.037	
	START UP						0.030	
	SPARES+STARTUP						0.067	
	CONTINGENCY						0.644	
	ENGINEERING SERVICES						0.218	
	A-E FEE						0.181	
GRAND TOTAL							4.573	

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PROCESS 24921

ECS STIRL PROCESS MEGAWATTS 5.00 PROCESS TEMP. 406. PROCESS HEAT(BTU*10**6) 37.
STIRLING-1472F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 70. KW FUEL= 20655.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.050	0.010	0.060	0.054	0.124	0.174	8.436
	ISLAND TOTAL	0.050	0.010	0.060	0.054	0.124	0.174	8.436
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	0.083	0.010	0.010	0.009	0.029	0.112	5.405
	29. STIRLING-ENGINE-COMB	1.599	0.192	0.192	0.173	0.557	2.156	104.377
	21. OIL-FIRED-BOILER	0.029	0.061	0.093	0.084	0.237	0.266	12.902
	ISLAND TOTAL	1.712	0.263	0.295	0.265	0.823	2.534	122.684
8. BALANCE-OF-PLANT	64. POWER-PLANT-STRUCTUR	0.	0.109	0.095	0.086	0.290	0.290	14.044
	80. MASTER-CONTROL	0.083	0.012	0.021	0.019	0.052	0.135	6.538
	81. ELECTRIC-SWITCHGEAR-	0.	0.030	0.030	0.027	0.087	0.087	4.212
	82. INTERCONNECTING-PIPI	0.	0.032	0.032	0.028	0.092	0.092	4.444
	83. STRUCTURES-MISCELLAN	0.	0.096	0.083	0.075	0.254	0.254	12.291
	ISLAND TOTAL	0.083	0.279	0.261	0.235	0.773	0.858	41.529
TOTAL THIS CASE		1.845	0.552	0.616	0.554	1.721	3.566	26.827
INDIRECT COSTS	SPARES						0.037	
	START UP						0.030	
	SPARES+STARTUP						0.067	
	CONTINGENCY						0.545	
	ENGINEERING SERVICES						0.218	
	A-E FEE						0.182	
GRAND TOTAL							4.576	

GENERAL ELECTRIC COMPANY
COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 26212

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 780.
NO COGENERATI SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.597	0.119	0.388	0.349	0.857	1.454	0.
	3. LIMESTONE/DOLOMITE-U	0.371	0.227	0.201	0.181	0.608	0.979	0.
	ISLAND TOTAL	0.968	0.347	0.589	0.530	1.465	2.433	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	7.210	8.377	9.033	8.130	25.539	32.749	0.
	ISLAND TOTAL	7.210	8.377	9.033	8.130	25.539	32.749	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.849	0.801	0.721	2.371	2.371	0.
	ISLAND TOTAL	0.	0.849	0.801	0.721	2.371	2.371	0.
TOTAL THIS CASE		8.178	9.572	10.423	9.381	29.375	37.553	0.
INDIRECT COSTS	SPARES						0.164	
	START UP						0.282	
	SPARES+STARTUP						0.445	
	CONTINGENCY						5.700	
	ENGINEERING SERVICES						2.280	
	A-E FEE						1.900	
GRAND TOTAL							47.878	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 26212

ECS GTSOAR PROCESS MEGAWATTS 50.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 780.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 588. KW FUEL= 172389.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.254	0.051	0.305	0.275	0.631	0.885	5.134
	ISLAND TOTAL	0.254	0.051	0.305	0.275	0.631	0.885	5.134
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	8.408	0.930	0.550	0.495	1.976	10.384	60.235
	ISLAND TOTAL	8.408	0.930	0.550	0.495	1.976	10.384	60.235
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.719	0.614	1.107	0.996	2.717	3.436	19.933
	ISLAND TOTAL	0.719	0.614	1.107	0.996	2.717	3.436	19.933
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	1.952	2.069	3.649	3.285	9.003	10.954	63.544
	ISLAND TOTAL	1.952	2.069	3.649	3.285	9.003	10.954	63.544
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.388	0.340	0.306	1.034	1.034	5.998
	80. MASTER-CONTROL	0.190	0.028	0.047	0.043	0.119	0.309	1.790
	81. ELECTRIC-SWITCHGEAR-	0.	0.081	0.081	0.073	0.234	0.234	1.360
	82. INTERCONNECTING-PIPI	0.	0.389	0.320	0.288	0.929	0.929	5.388
	83. STRUCTURES-MISCELLAN	0.	1.060	1.029	0.926	3.035	3.035	17.603
	ISLAND TOTAL	0.190	1.898	1.817	1.636	5.350	5.540	32.138
TOTAL THIS CASE		11.523	5.562	7.429	6.686	19.677	31.200	38.785
INDIRECT COSTS	SPARES						0.230	
	START UP						0.245	
	SPARES+STARTUP						0.476	
	CONTINGENCY						4.751	
	ENGINEERING SERVICES						1.901	
	A-E FEE						1.584	
GRAND TOTAL							39.911	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 26212

ECS HEGT00 PROCESS MEGAWATTS 50.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 780.
HELIUM-GT-00-REGEN SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 969. KW FUEL= 284049.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.823	0.165	0.535	0.481	1.181	2.004	7.054
	ISLAND TOTAL	0.823	0.165	0.535	0.481	1.181	2.004	7.054
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	21.400	8.346	6.420	5.778	20.544	41.944	147.665
	ISLAND TOTAL	21.400	8.346	6.420	5.778	20.544	41.944	147.665
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	9.560	3.728	2.868	2.581	9.178	18.738	65.966
	ISLAND TOTAL	9.560	3.728	2.868	2.581	9.178	18.738	65.966
5. HEAT-SINK	50. COOLING-TOWERS-WET-I	0.860	0.129	0.430	0.387	0.946	1.806	6.358
	ISLAND TOTAL	0.860	0.129	0.430	0.387	0.946	1.806	6.358
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.105	3.573	3.876	3.489	10.939	14.044	49.442
	ISLAND TOTAL	24.505	11.919	10.296	9.267	31.483	55.988	197.107
TOTAL THIS CASE		35.748	15.941	14.129	12.716	42.787	78.535	44.768
INDIRECT COSTS	SPARES						0.715	
	START UP						0.658	
	SPARES+STARTUP						1.373	
	CONTINGENCY						11.986	
	ENGINEERING SERVICES						4.794	
	A-E FEE						3.995	
GRAND TOTAL							100.684	

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PROCESS 26212

ECS PFBSTM PROCESS MEGAWATTS 76.62 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 780.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 1236. KW FUEL= 362105.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.772	0.154	0.502	0.452	1.108	1.880	5.192
	3. LIMESTONE/DOLOMITE-U	0.459	0.258	0.227	0.204	0.689	1.147	3.169
	ISLAND TOTAL	1.231	0.412	0.729	0.656	1.797	3.028	8.361
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	18.996	3.609	2.659	2.393	8.662	27.658	76.382
	ISLAND TOTAL	18.996	3.609	2.659	2.393	8.662	27.658	76.382
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	6.644	1.935	1.312	1.181	4.428	11.073	30.579
	ISLAND TOTAL	6.644	1.935	1.312	1.181	4.428	11.073	30.579
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	5.532	0.	0.	0.	0.	5.532	15.277
	ISLAND TOTAL	5.532	0.	0.	0.	0.	5.532	15.277
TOTAL THIS CASE		32.403	5.956	4.701	4.231	14.887	47.290	11.683
INDIRECT COSTS	SPARES						0.648	
	START UP						0.431	
	SPARES+STARTUP						1.079	
	CONTINGENCY						7.255	
	ENGINEERING SERVICES						2.902	
	A-E FEE						2.418	
GRAND TOTAL							60.945	

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PROCESS 26212

ECS PFBSTM PROCESS MEGAWATTS 50.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 780.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 806. KW FUEL= 236298.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.712	0.142	0.463	0.417	1.022	1.734	7.338
	3. LIMESTONE/DOLOMITE-U	0.429	0.248	0.218	0.197	0.662	1.091	4.619
	ISLAND TOTAL	1.141	0.390	0.681	0.613	1.684	2.825	11.957
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	14.095	2.678	1.973	1.776	6.427	20.523	86.851
	ISLAND TOTAL	14.095	2.678	1.973	1.776	6.427	20.523	86.851
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	4.926	1.638	1.108	0.997	3.743	8.669	36.688
	ISLAND TOTAL	4.926	1.638	1.108	0.997	3.743	8.669	36.688
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.157	0.	0.	0.	0.	4.157	17.591
	ISLAND TOTAL	4.157	0.	0.	0.	0.	4.157	17.591
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.876	3.294	3.584	3.226	10.105	12.981	54.935
	ISLAND TOTAL	16.972	5.972	5.558	5.002	16.532	33.504	141.786
TOTAL THIS CASE		27.196	8.000	7.347	6.612	21.960	49.155	27.984
INDIRECT COSTS	SPARES						0.544	
	START UP						0.425	
	SPARES+STARTUP						0.969	
	CONTINGENCY						7.519	
	ENGINEERING SERVICES						3.007	
	A-E FEE						2.506	
GRAND TOTAL							63.157	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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PROCESS 26212

ECS STM141 PROCESS MEGAWATTS 47.17 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 780.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1107. KW FUEL= 324399.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.702	0.140	0.456	0.411	1.008	1.710	5.270
	3. LIMESTONE/DOLOMITE-U	0.424	0.246	0.217	0.195	0.658	1.082	3.335
	ISLAND TOTAL	1.126	0.386	0.673	0.606	1.666	2.792	8.606
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	13.351	3.338	2.699	2.430	8.467	21.817	67.255
	ISLAND TOTAL	13.351	3.338	2.699	2.430	8.467	21.817	67.255
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	5.724	0.	0.	0.	0.	5.724	17.646
	ISLAND TOTAL	5.724	0.	0.	0.	0.	5.724	17.646
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.998	0.948	0.853	2.800	2.800	8.630
	ISLAND TOTAL	0.	0.998	0.948	0.853	2.800	2.800	8.630
TOTAL THIS CASE		20.201	4.722	4.321	3.889	12.932	33.133	11.988
INDIRECT COSTS	SPARES						0.404	
	START UP						0.292	
	SPARES+STARTUP						0.696	
	CONTINGENCY						5.074	
	ENGINEERING SERVICES						2.030	
	A-E FEE						1.691	
GRAND TOTAL							42.625	

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PROCESS 26212

ECS STM141 PROCESS MEGAWATTS 47.17 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 780.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 1107. KW FUEL= 324399.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.702	0.140	0.456	0.411	1.008	1.710	5.270
	3. LIMESTONE/DOLOMITE-U	0.424	0.246	0.217	0.195	0.658	1.082	3.335
	ISLAND TOTAL	1.126	0.386	0.673	0.606	1.666	2.792	8.606
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	8.828	8.852	9.976	8.978	27.806	36.634	112.930
	ISLAND TOTAL	8.828	8.852	9.976	8.978	27.806	36.634	112.930
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	5.724	0.	0.	0.	0.	5.724	17.646
	ISLAND TOTAL	5.724	0.	0.	0.	0.	5.724	17.646
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.998	0.948	0.853	2.800	2.800	8.630
	ISLAND TOTAL	0.	0.998	0.948	0.853	2.800	2.800	8.630
TOTAL THIS CASE		15.679	10.237	11.597	10.438	32.271	47.950	32.175
INDIRECT COSTS	SPARES						0.314	
	START UP						0.375	
	SPARES+STARTUP						0.689	
	CONTINGENCY						7.296	
	ENGINEERING SERVICES						2.918	
	A-E FEE						2.432	
GRAND TOTAL							61.285	189

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PROCESS 26214

ECS ONOCGN N G C O G E N E R A T I — PROCESS MEGAWATTS 0. — SITE FUEL= COAL-FGD — PROCESS TEMP. 366. — COGEN FUEL BTU*10**6= 0. — PROCESS HEAT(BTU*10**6) 610. — KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.483	0.097	0.314	0.282	0.693	1.175	0.
	3. LIMESTONE/DOLOMITE-U	0.311	0.205	0.181	0.163	0.549	0.860	0.
	ISLAND TOTAL	0.794	0.301	0.495	0.446	1.242	2.036	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	6.191	7.123	7.728	6.955	21.805	27.996	0.
	ISLAND TOTAL	6.191	7.123	7.728	6.955	21.805	27.996	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.686	0.642	0.578	1.907	1.907	0.
	ISLAND TOTAL	0.	0.686	0.642	0.578	1.907	1.907	0.
TOTAL THIS CASE		6.984	8.110	8.865	7.979	24.954	31.938	0.
INDIRECT COSTS	SPARES						0.140	
	START UP						0.240	
	SPARES+STARTUP						0.379	
	CONTINGENCY						4.848	
	ENGINEERING SERVICES						1.939	
	A-E FEE						1.616	
GRAND TOTAL							40.720	

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PROCESS 26214

ECS PFBSTM PROCESS MEGAWATTS 62.19 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 610.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 975. KW FUEL= 285707.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.629	0.126	0.409	0.368	0.903	1.532	5.362
	3. LIMESTONE/DOLOMITE-U	0.387	0.233	0.206	0.185	0.624	1.011	3.539
	ISLAND TOTAL	1.016	0.359	0.615	0.553	1.527	2.543	8.901
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	16.096	3.058	2.253	2.028	7.340	23.436	82.027
	ISLAND TOTAL	16.096	3.058	2.253	2.028	7.340	23.436	82.027
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	5.627	1.764	1.195	1.075	4.034	9.661	33.816
	ISLAND TOTAL	5.627	1.764	1.195	1.075	4.034	9.661	33.816
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.874	0.	0.	0.	0.	4.874	17.058
	ISLAND TOTAL	4.874	0.	0.	0.	0.	4.874	17.058
TOTAL THIS CASE		27.613	5.181	4.063	3.657	12.901	40.514	12.798
INDIRECT COSTS	SPARES						0.552	
	START UP						0.369	
	SPARES+STARTUP						0.921	
	CONTINGENCY						6.215	
	ENGINEERING SERVICES						2.486	
	A-E FEE						2.072	
GRAND TOTAL							52.208	

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PROCESS 26214

ECS STM088 . PROCESS MEGAWATTS 28.77 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 610.
STM-TURB-865/825F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 833. KW FUEL= 244140.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.549	0.110	0.357	0.321	0.788	1.337	5.478
	3. LIMESTONE/DOLOMITE-U	0.346	0.218	0.193	0.174	0.584	0.930	3.811
	ISLAND TOTAL	0.895	0.328	0.550	0.495	1.373	2.268	9.289
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	11.611	2.903	2.440	2.196	7.539	19.150	78.439
	ISLAND TOTAL	11.611	2.903	2.440	2.196	7.539	19.150	78.439
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.104	0.	0.	0.	0.	4.104	16.810
	ISLAND TOTAL	4.104	0.	0.	0.	0.	4.104	16.810
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.781	0.735	0.661	2.176	2.176	8.914
	ISLAND TOTAL	0.	0.781	0.735	0.661	2.176	2.176	8.914
TOTAL THIS CASE		16.611	4.011	3.724	3.352	11.088	27.698	13.729
INDIRECT COSTS	SPARES						0.332	
	START UP						0.243	
	SPARES+STARTUP						0.576	
	CONTINGENCY						4.241	
	ENGINEERING SERVICES						1.696	
	A-E FEE						1.414	
GRAND TOTAL							35.625	

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PROCESS 26214

ECS STM141 . PROCESS MEGAWATTS 29.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 610.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 650. KW FUEL= 190440.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	0.550	0.110	0.357	0.322	0.789	1.339	7.029
	3.	LIMESTONE/DOLOMITE-U	0.346	0.218	0.193	0.174	0.585	0.931	4.889
		ISLAND TOTAL	0.896	0.328	0.550	0.495	1.374	2.270	11.918
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	4.919	4.948	5.559	5.003	15.510	20.429	107.272
		ISLAND TOTAL	4.919	4.948	5.559	5.003	15.510	20.429	107.272
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	4.133	0.	0.	0.	0.	4.133	21.701
		ISLAND TOTAL	4.133	0.	0.	0.	0.	4.133	21.701
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	2.047	2.294	2.630	2.277	7.101	9.148	48.035
		ISLAND TOTAL	6.966	7.242	8.089	7.280	22.611	29.576	155.306
8. BALANCE-OF-PLANT	83.	STRUCTURES-MISCELLAN	0.	0.781	0.735	0.662	2.179	2.179	11.439
		ISLAND TOTAL	0.	0.781	0.735	0.662	2.179	2.179	11.439
TOTAL THIS CASE			11.995	8.351	9.374	8.437	26.163	38.157	44.303
INDIRECT COSTS		SPARES						0.240	
		START UP						0.297	
		SPARES+STARTUP						0.537	
		CONTINGENCY						5.804	
		ENGINEERING SERVICES						2.322	
		A-E FEE						1.935	
GRAND TOTAL								48.756	

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PROCESS 26214

ECS STM141 PROCESS MEGAWATTS 29.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 610.
STM-TURB-1465/1000F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 650. KW FUEL= 190440.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.205	0.041	0.246	0.221	0.508	0.712	3.741
	ISLAND TOTAL	0.205	0.041	0.246	0.221	0.508	0.712	3.741
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	1.960	1.686	2.745	2.470	6.901	8.861	46.529
	ISLAND TOTAL	1.960	1.686	2.745	2.470	6.901	8.861	46.529
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.133	0.	0.	0.	0.	4.133	21.701
	ISLAND TOTAL	4.133	0.	0.	0.	0.	4.133	21.701
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.356	0.737	1.125	1.012	2.874	3.229	16.958
	ISLAND TOTAL	2.316	2.423	3.869	3.482	9.774	12.090	63.487
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.781	0.735	0.662	2.179	2.179	11.439
	ISLAND TOTAL	0.	0.781	0.735	0.662	2.179	2.179	11.439
TOTAL THIS CASE		6.654	3.245	4.850	4.365	12.460	19.114	22.922
INDIRECT COSTS	SPARES						0.133	
	START UP						0.147	
	SPARES+STARTUP						0.281	
	CONTINGENCY						2.909	
	ENGINEERING SERVICES						1.164	
	A-E FEE						0.970	
GRAND TOTAL							24.437	

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PROCESS 26214

ECS TISTMT PROCESS MEGAWATTS 29.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 610.
TI-STMTB-1465/1000F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 371. KW FUEL= 108848.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.205	0.041	0.246	0.222	0.509	0.714	6.559
	ISLAND TOTAL	0.205	0.041	0.246	0.222	0.509	0.714	6.559
3. ENERGY-CONVERSION	33. THERMIONIC-BOILER/GE	10.043	12.332	11.967	10.770	35.069	45.112	414.451
	30. STEAM-TURBINE-GENERA	2.499	0.	0.	0.	0.	2.499	22.961
	ISLAND TOTAL	12.542	12.332	11.967	10.770	35.069	47.611	437.412
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	1.677	1.778	3.136	2.823	7.737	9.414	86.487
	ISLAND TOTAL	1.677	1.778	3.136	2.823	7.737	9.414	86.487
TOTAL THIS CASE		14.425	14.151	15.349	13.814	43.314	57.739	126.915
INDIRECT COSTS	SPARES						0.289	
	START UP						0.439	
	SPARES+STARTUP						0.728	
	CONTINGENCY						8.770	
	ENGINEERING SERVICES						3.508	
	A-E FEE						2.923	
GRAND TOTAL							73.668	

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PROCESS 26216

ECS ONOCGN . PROCESS MEGAWATTS 0. PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 307.
N O C O G E N E R A T I SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.267	0.053	0.173	0.156	0.383	0.649	0.
	3. LIMESTONE/DOLOMITE-U	0.190	0.153	0.137	0.123	0.413	0.603	0.
	ISLAND TOTAL	0.457	0.206	0.310	0.279	0.795	1.252	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.108	3.577	3.880	3.492	10.948	14.056	0.
	ISLAND TOTAL	3.108	3.577	3.880	3.492	10.948	14.056	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.379	0.347	0.312	1.038	1.038	0.
	ISLAND TOTAL	0.	0.379	0.347	0.312	1.038	1.038	0.
TOTAL THIS CASE		3.565	4.162	4.537	4.083	12.782	16.347	0.

INDIRECT COSTS	SPARES	0.071
	START UP	0.123
	SPARES+STARTUP	0.194
	CONTINGENCY	2.461
	ENGINEERING SERVICES	0.992
	A-E FEE	0.827
GRAND TOTAL		20.841

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PROCESS 26216

ECS GTSOAD PROCESS MEGAWATTS 20.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 307.
GT-HRSG-10/2000D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 234. KW FUEL= 68483.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.146	0.029	0.176	0.158	0.363	0.510	7.442
	ISLAND TOTAL	0.146	0.029	0.176	0.158	0.363	0.510	7.442
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	2.892	0.376	0.217	0.195	0.788	3.680	53.739
	ISLAND TOTAL	2.892	0.376	0.217	0.195	0.788	3.680	53.739
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.435	0.379	0.743	0.669	1.790	2.225	32.484
	ISLAND TOTAL	0.435	0.379	0.743	0.669	1.790	2.225	32.484
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.413	0.854	1.304	1.174	3.333	3.745	54.690
	ISLAND TOTAL	0.413	0.854	1.304	1.174	3.333	3.745	54.690
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.173	0.151	0.136	0.461	0.461	6.729
	80. MASTER-CONTROL	0.104	0.016	0.026	0.023	0.065	0.169	2.461
	81. ELECTRIC-SWITCHGEAR-	0.	0.035	0.035	0.032	0.102	0.102	1.484
	82. INTERCONNECTING-PIPI	0.	0.136	0.136	0.123	0.396	0.396	5.778
	83. STRUCTURES-MISCELLAN	0.	0.474	0.438	0.394	1.306	1.306	19.075
	ISLAND TOTAL	0.104	0.834	0.787	0.708	2.329	2.433	35.527
TOTAL THIS CASE		3.990	2.472	3.227	2.904	8.603	12.593	42.405
INDIRECT COSTS	SPARES						0.080	
	START UP						0.097	
	SPARES+STARTUP						0.177	
	CONTINGENCY						1.915	
	ENGINEERING SERVICES						0.766	
	A-E FEE						0.638	
GR D TOTAL							16.090	

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PROCESS 26216

ECS STIG10 PROCESS MEGAWATTS 20.00 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 307.
STIG-10-16/2200F-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 190. KW FUEL= 55687.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.156	0.031	0.187	0.168	0.387	0.543	9.743
	ISLAND TOTAL	0.156	0.031	0.187	0.168	0.387	0.543	9.743
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	3.500	0.385	0.280	0.252	0.917	4.417	79.319
	ISLAND TOTAL	3.500	0.385	0.280	0.252	0.917	4.417	79.319
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.232	0.205	0.435	0.392	1.032	1.264	22.700
	ISLAND TOTAL	0.232	0.205	0.435	0.392	1.032	1.264	22.700
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	0.055	0.028	0.033	0.030	0.090	0.146	2.616
	ISLAND TOTAL	3.555	0.413	0.313	0.282	1.007	4.563	81.935
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	1.007	1.067	1.883	1.694	4.644	5.651	101.484
	ISLAND TOTAL	1.007	1.067	1.883	1.694	4.644	5.651	101.484
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.144	0.126	0.113	0.383	0.383	6.870
	80. MASTER-CONTROL	0.089	0.013	0.022	0.020	0.056	0.145	2.603
	81. ELECTRIC-SWITCHGEAR-	0.	0.027	0.027	0.024	0.077	0.077	1.383
	82. INTERCONNECTING-PIPI	0.	0.124	0.124	0.111	0.359	0.359	6.440
	83. STRUCTURES-MISCELLAN	0.	0.521	0.482	0.434	1.437	1.437	25.811
	ISLAND TOTAL	0.089	0.828	0.781	0.703	2.311	2.400	43.107
TOTAL THIS CASE		5.039	2.544	3.599	3.239	9.382	14.421	58.166
INDIRECT COSTS	SPARES						0.101	
	START UP						0.112	
	SPARES+STARTUP						0.213	
	CONTINGENCY						2.195	

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PROCESS 26216

ECS STM141 PROCESS MEGAWATTS 18.13 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 307.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 434. KW FUEL= 127164.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.313	0.053	0.203	0.183	0.448	0.761	5.984
	3. LIMESTONE/DOLOMITE-U	0.217	0.163	0.147	0.133	0.445	0.662	5.209
	ISLAND TOTAL	0.530	0.228	0.350	0.315	0.894	1.423	11.193
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	5.784	1.446	1.209	1.088	3.743	9.527	74.920
	ISLAND TOTAL	5.784	1.446	1.209	1.088	3.743	9.527	74.920
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	3.017	0.	0.	0.	0.	3.017	23.728
	ISLAND TOTAL	3.017	0.	0.	0.	0.	3.017	23.728
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.444	0.409	0.368	1.221	1.221	9.603
	ISLAND TOTAL	0.	0.444	0.409	0.368	1.221	1.221	9.603
TOTAL THIS CASE		9.331	2.118	1.968	1.771	5.858	15.189	13.930
INDIRECT COSTS	SPARES						0.187	
	START UP						0.134	
	SPARES+STARTUP						0.321	
	CONTINGENCY						2.326	
	ENGINEERING SERVICES						0.931	
	A-E FEE						0.775	
GRAND TOTAL							19.542	

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PROCESS 26216

ECS STM141 PROCESS MEGAWATTS 18.13 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 307.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 434. KW FUEL= 127164.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.313	0.063	0.203	0.183	0.448	0.761	5.984
	3. LIMESTONE/DOLOMITE-U	0.217	0.165	0.147	0.133	0.445	0.662	5.209
	ISLAND TOTAL	0.530	0.228	0.350	0.315	0.894	1.423	11.193
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.745	3.738	4.232	3.809	11.779	15.525	122.084
	ISLAND TOTAL	3.745	3.738	4.232	3.809	11.779	15.525	122.084
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	3.017	0.	0.	0.	0.	3.017	23.728
	ISLAND TOTAL	3.017	0.	0.	0.	0.	3.017	23.728
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.444	0.409	0.368	1.221	1.221	9.603
	ISLAND TOTAL	0.	0.444	0.409	0.368	1.221	1.221	9.603
TOTAL THIS CASE		7.292	4.410	4.992	4.493	13.894	21.187	35.329
INDIRECT COSTS	SPARES						0.146	
	START UP						0.167	
	SPARES+STARTUP						0.313	
	CONTINGENCY						3.225	
	ENGINEERING SERVICES						1.290	
	A-E FEE						1.075	
GRAND TOTAL							27.089	

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PROCESS 26216

ECS STM141 PROCESS MEGAWATTS 18.13 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 307.
STM-TURB-1465/1000F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 434. KW FUEL= 127164.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.140	0.028	0.168	0.151	0.348	0.488	3.835
	ISLAND TOTAL	0.140	0.028	0.168	0.151	0.348	0.488	3.835
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.960	1.248	1.729	1.556	4.533	5.493	43.198
	ISLAND TOTAL	0.960	1.248	1.729	1.556	4.533	5.493	43.198
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	3.017	0.	0.	0.	0.	3.017	23.728
	ISLAND TOTAL	3.017	0.	0.	0.	0.	3.017	23.728
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.444	0.409	0.368	1.221	1.221	9.603
	ISLAND TOTAL	0.	0.444	0.409	0.368	1.221	1.221	9.603
TOTAL THIS CASE		4.118	1.721	2.306	2.075	6.102	10.219	16.319
INDIRECT COSTS	SPARES						0.082	
	START UP						0.081	
	SPARES+STARTUP						0.164	
	CONTINGENCY						1.557	
	ENGINEERING SERVICES						0.623	
	A-E FEE						0.519	
GRAND TOTAL							13.083	

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PROCESS 26217

ECS ONOCGN — PROCESS MEGAWATTS 0. — PROCESS TEMP. 366. — PROCESS HEAT(BTU*10**6) 183.
NO COGENERATI — SITE FUEL= COAL-FOD — COGEN FUEL BTU*10**6= 0. — KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.171	0.034	0.111	0.100	0.245	0.415	0.
	3. LIMESTONE/DOLOMITE-U	0.131	0.123	0.110	0.099	0.333	0.464	0.
	ISLAND TOTAL	0.302	0.157	0.221	0.199	0.577	0.879	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.255	2.543	2.794	2.514	7.851	10.105	0.
	ISLAND TOTAL	2.255	2.543	2.794	2.514	7.851	10.105	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.242	0.218	0.196	0.656	0.656	0.
	ISLAND TOTAL	0.	0.242	0.218	0.196	0.656	0.656	0.
TOTAL THIS CASE		2.557	2.942	3.233	2.909	9.084	11.641	0.
INDIRECT COSTS	SPARES						0.051	
	START UP						0.087	
	SPARES+STARTUP						0.138	
	CONTINGENCY						1.767	
	ENGINEERING SERVICES						0.707	
	A-E FEE						0.589	
GRAND TOTAL							14.842	

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PROCESS 26217

ECS CC0822 PROCESS MEGAWATTS 44.95 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GTST-08/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 444. KW FUEL= 130255.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.142	0.028	0.171	0.153	0.352	0.494	3.796
	ISLAND TOTAL	0.142	0.028	0.171	0.153	0.352	0.494	3.796
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	5.182	0.627	0.366	0.329	1.323	6.505	49.939
	30. STEAM-TURBINE-GENERA	2.000	0.	0.	0.	0.	2.000	15.355
	ISLAND TOTAL	7.182	0.627	0.366	0.329	1.323	8.505	65.294
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.682	0.589	1.114	1.003	2.705	3.387	26.004
	ISLAND TOTAL	0.682	0.589	1.114	1.003	2.705	3.387	26.004
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.125	0.110	0.099	0.334	0.334	2.564
	80. MASTER-CONTROL	0.081	0.012	0.020	0.018	0.051	0.132	1.010
	81. ELECTRIC-SWITCHGEAR-	0.	0.056	0.056	0.050	0.161	0.161	1.238
	82. INTERCONNECTING-PIPI	0.	0.108	0.108	0.097	0.313	0.313	2.401
	83. STRUCTURES-MISCELLAN	0.	0.453	0.418	0.376	1.247	1.247	9.577
	ISLAND TOTAL	0.081	0.755	0.711	0.640	2.106	2.187	16.790
TOTAL THIS CASE		8.087	1.999	2.362	2.126	6.487	14.574	16.320
INDIRECT COSTS	SPARES						0.162	
	START UP						0.124	
	SPARES+STARTUP						0.286	
	CONTINGENCY						2.229	
	ENGINEERING SERVICES						0.892	
	A-E FEE						0.743	
GRAND TOTAL							18.723	

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PROCESS 26217

ECS CC0822 PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GTST-08/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 309. KW FUEL= 90633.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.129	0.026	0.154	0.139	0.319	0.448	4.942
	ISLAND TOTAL	0.129	0.026	0.154	0.139	0.319	0.448	4.942
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	3.824	0.488	0.283	0.254	1.025	4.849	53.499
	30. STEAM-TURBINE-GENERA	1.569	0.	0.	0.	0.	1.569	17.310
	ISLAND TOTAL	5.392	0.488	0.283	0.254	1.025	6.418	70.808
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.546	0.475	0.922	0.830	2.226	2.772	30.589
	ISLAND TOTAL	0.546	0.475	0.922	0.830	2.226	2.772	30.589
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.189	0.391	0.597	0.537	1.524	1.713	18.902
	ISLAND TOTAL	0.189	0.391	0.597	0.537	1.524	1.713	18.902
6. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.109	0.095	0.085	0.289	0.289	3.188
	80. MASTER-CONTROL	0.072	0.011	0.018	0.016	0.045	0.118	1.297
	81. ELECTRIC-SWITCHGEAR-	0.	0.040	0.040	0.036	0.116	0.116	1.278
	82. INTERCONNECTING-PIPI	0.	0.092	0.092	0.083	0.267	0.267	2.944
	83. STRUCTURES-MISCELLAN	0.	0.391	0.359	0.323	1.073	1.073	11.833
	ISLAND TOTAL	0.072	0.643	0.604	0.543	1.789	1.862	20.541
TOTAL THIS CASE		6.329	2.022	2.559	2.303	6.884	13.213	25.412
INDIRECT COSTS	SPARES						0.127	
	START UP						0.109	
	SPARES+STARTUP						0.236	
	CONTINGENCY						2.017	
	ENGINEERING SERVICES						0.807	
	A-E FEE						0.672	

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PROCESS 26217

ECS CC1626 PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GTST-16/2600/1465-WC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 286. KW FUEL= 83911.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.133	0.027	0.159	0.143	0.329	0.462	5.508
	ISLAND TOTAL	0.133	0.027	0.159	0.143	0.329	0.462	5.508
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	4.760	0.629	0.362	0.326	1.317	6.077	72.425
	30. STEAM-TURBINE-GENERA	1.132	0.	0.	0.	0.	1.132	13.491
	ISLAND TOTAL	5.892	0.629	0.362	0.326	1.317	7.209	85.916
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.421	0.367	0.725	0.653	1.745	2.166	25.814
	ISLAND TOTAL	0.421	0.367	0.725	0.653	1.745	2.166	25.814
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.258	0.535	0.817	0.735	2.087	2.345	27.948
	ISLAND TOTAL	0.258	0.535	0.817	0.735	2.087	2.345	27.948
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.114	0.099	0.089	0.303	0.303	3.605
	80. MASTER-CONTROL	0.077	0.012	0.019	0.017	0.048	0.126	1.500
	81. ELECTRIC-SWITCHGEAR-	0.	0.040	0.040	0.036	0.116	0.116	1.381
	82. INTERCONNECTING-PIPI	0.	0.101	0.101	0.091	0.294	0.294	3.503
	83. STRUCTURES-MISCELLAN	0.	0.410	0.376	0.339	1.125	1.125	13.410
	ISLAND TOTAL	0.077	0.677	0.636	0.573	1.886	1.963	23.399
TOTAL THIS CASE		6.782	2.234	2.700	2.430	7.364	14.146	28.962
INDIRECT COSTS	SPARES						0.136	
	START UP						0.117	
	SPARES+STARTUP						0.253	
	CONTINGENCY						2.160	
	ENGINEERING SERVICES						0.864	
	A-E FEE						0.720	

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PROCESS 26217

ECS FCMCDS PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
FUEL-CL-MOLTCARB-DS SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 259. KW FUEL= 75960.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS\1978$	**********				
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.134	0.027	0.161	0.145	0.333	0.467	6.154
	ISLAND TOTAL	0.134	0.027	0.161	0.145	0.333	0.467	6.154
2. FUEL-UTILIZATION-CLE	28. REFORMER-SHIFTER-AND	3.356	0.336	0.503	0.453	1.292	4.648	61.195
	ISLAND TOTAL	3.356	0.336	0.503	0.453	1.292	4.648	61.195
3. ENERGY-CONVERSION	35. FUEL-CELLS-MOLTEN-CA	5.943	0.594	0.891	0.802	2.288	8.231	108.359
	ISLAND TOTAL	5.943	0.594	0.891	0.802	2.288	8.231	108.359
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.306	0.634	0.968	0.871	2.474	2.780	36.598
	ISLAND TOTAL	3.663	0.970	1.472	1.324	3.766	7.428	97.792
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.462	0.404	0.364	1.230	1.230	16.198
	80. MASTER-CONTROL	0.326	0.049	0.081	0.073	0.204	0.529	6.968
	81. ELECTRIC-SWITCHGEAR-	0.	0.160	0.160	0.144	0.463	0.463	6.101
	82. INTERCONNECTING-PIPI	0.	0.217	0.217	0.196	0.631	0.631	8.301
	83. STRUCTURES-MISCELLAN	0.	0.417	0.383	0.345	1.145	1.145	15.072
	ISLAND TOTAL	0.326	1.305	1.246	1.121	3.673	3.999	52.641
TOTAL THIS CASE		10.066	2.896	3.770	3.393	10.060	20.125	44.671
INDIRECT COSTS	SPARES						0.201	
	START UP						0.167	
	SPARES+STARTUP						0.369	
	CONTINGENCY						3.074	
	ENGINEERING SERVICES						1.230	
	A-E FEE						1.025	
GRAND TOTAL							25.822	

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PROCESS 26217

ECS GTAC12 PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GT-HRSG-12/2200R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 350. KW FUEL= 102608.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.129	0.026	0.154	0.139	0.319	0.448	4.361
		ISLAND TOTAL	0.129	0.026	0.154	0.139	0.319	0.448	4.361
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	5.043	0.625	0.364	0.327	1.316	6.359	61.973
		ISLAND TOTAL	5.043	0.625	0.364	0.327	1.316	6.359	61.973
4. BOTTOMING-CYCLE	40.	HEAT-RECOVERY-STEAM-	0.557	0.482	0.917	0.826	2.225	2.782	27.115
		ISLAND TOTAL	0.557	0.482	0.917	0.826	2.225	2.782	27.115
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.102	0.212	0.323	0.291	0.825	0.928	9.040
		ISLAND TOTAL	0.102	0.212	0.323	0.291	0.825	0.928	9.040
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	0.143	0.125	0.113	0.381	0.381	3.712
	80.	MASTER-CONTROL	0.089	0.013	0.022	0.020	0.056	0.144	1.407
	81.	ELECTRIC-SWITCHGEAR-	0.	0.053	0.053	0.047	0.153	0.153	1.490
	82.	INTERCONNECTING-PIPI	0.	0.110	0.110	0.099	0.318	0.318	3.100
	83.	STRUCTURES-MISCELLAN	0.	0.391	0.358	0.322	1.071	1.071	10.439
		ISLAND TOTAL	0.089	0.710	0.668	0.601	1.979	2.067	20.149
TOTAL THIS CASE			5.920	2.054	2.426	2.183	6.664	12.584	21.280
INDIRECT COSTS		SPARES						0.118	
		START UP						0.104	
		SPARES+STARTUP						0.222	
		CONTINGENCY						1.921	
		ENGINEERING SERVICES						0.768	
		A-E FEE						0.640	
GRAND TOTAL								16.136	

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PROCESS 26217

ECS GTAC16 PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GT-HRSG-16/2200R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 331. KW FUEL= 96890.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-$	0.129	0.026	0.155	0.140	0.321	0.450	4.644
	ISLAND TOTAL	0.129	0.026	0.155	0.140	0.321	0.450	4.644
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	5.544	0.687	0.400	0.360	1.446	6.990	72.147
	ISLAND TOTAL	5.544	0.687	0.400	0.360	1.446	6.990	72.147
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.516	0.447	0.859	0.773	2.079	2.595	26.785
	ISLAND TOTAL	0.516	0.447	0.859	0.773	2.079	2.595	26.785
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.154	0.319	0.487	0.439	1.245	1.399	14.441
	ISLAND TOTAL	0.154	0.319	0.487	0.439	1.245	1.399	14.441
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.144	0.126	0.114	0.384	0.384	3.962
	80. MASTER-CONTROL	0.093	0.014	0.023	0.021	0.058	0.150	1.553
	81. ELECTRIC-SWITCHGEAR-	0.	0.053	0.053	0.047	0.153	0.153	1.578
	82. INTERCONNECTING-PIPI	0.	0.116	0.116	0.105	0.337	0.337	3.480
	83. STRUCTURES-MISCELLAN	0.	0.394	0.361	0.325	1.080	1.080	11.146
	ISLAND TOTAL	0.093	0.721	0.679	0.611	2.012	2.104	21.719
TOTAL THIS CASE		6.436	2.200	2.580	2.322	7.103	13.539	23.970
INDIRECT COSTS	SPARES						0.129	
	START UP						0.112	
	SPARES+STARTUP						0.241	
	CONTINGENCY						2.067	
	ENGINEERING SERVICES						0.827	
	A-E FEE						0.689	
GRAND TOTAL							17.363	

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PROCESS 26217

ECS GTSOAD PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GT-HRSG-10/2000D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 366. KW FUEL= 107176.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.130	0.026	0.156	0.141	0.323	0.453	4.231
	ISLAND TOTAL	0.130	0.026	0.156	0.141	0.323	0.453	4.231
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	4.219	0.513	0.299	0.269	1.082	5.301	49.463
	ISLAND TOTAL	4.219	0.513	0.299	0.269	1.082	5.301	49.463
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.569	0.492	0.934	0.841	2.267	2.837	26.469
	ISLAND TOTAL	0.569	0.492	0.934	0.841	2.267	2.837	26.469
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.083	0.172	0.262	0.236	0.669	0.752	7.019
	ISLAND TOTAL	0.083	0.172	0.262	0.236	0.669	0.752	7.019
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.146	0.128	0.115	0.388	0.388	3.624
	80. MASTER-CONTROL	0.088	0.013	0.022	0.020	0.055	0.143	1.330
	81. ELECTRIC-SWITCHGEAR-	0.	0.053	0.053	0.047	0.153	0.153	1.427
	82. INTERCONNECTING-PIPI	0.	0.108	0.108	0.097	0.312	0.312	2.914
	83. STRUCTURES-MISCELLAN	0.	0.399	0.365	0.329	1.093	1.093	10.198
	ISLAND TOTAL	0.088	0.718	0.675	0.608	2.001	2.089	19.492
TOTAL THIS CASE		5.089	1.921	2.327	2.095	6.344	11.433	19.545
INDIRECT COSTS	SPARES						0.102	
	START UP						0.093	
	SPARES+STARTUP						0.195	
	CONTINGENCY						1.744	
	ENGINEERING SERVICES						0.698	
	A-E FEE						0.581	
GRAN TOTAL							14.651	

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PROCESS 26217

ECS GTSOAR PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 368. KW FUEL= 107915.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1976$	**********				
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.134	0.027	0.160	0.144	0.331	0.465	4.309
	ISLAND TOTAL	0.134	0.027	0.160	0.144	0.331	0.465	4.309
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	5.751	0.681	0.399	0.359	1.440	7.191	66.632
	ISLAND TOTAL	5.751	0.681	0.399	0.359	1.440	7.191	66.632
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.555	0.478	0.893	0.804	2.176	2.731	25.310
	ISLAND TOTAL	0.555	0.478	0.893	0.804	2.176	2.731	25.310
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.121	0.250	0.381	0.343	0.975	1.095	10.150
	ISLAND TOTAL	0.121	0.250	0.381	0.343	0.975	1.095	10.150
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.151	0.132	0.119	0.403	0.403	3.734
	80. MASTER-CONTROL	0.090	0.014	0.023	0.020	0.056	0.146	1.356
	81. ELECTRIC-SWITCHGEAR-	0.	0.053	0.053	0.047	0.153	0.153	1.417
	82. INTERCONNECTING-PIPI	0.	0.112	0.112	0.101	0.324	0.324	3.005
	83. STRUCTURES-MISCELLAN	0.	0.414	0.380	0.342	1.136	1.136	10.525
	ISLAND TOTAL	0.090	0.743	0.699	0.630	2.072	2.162	20.038
TOTAL THIS CASE		6.651	2.180	2.534	2.280	6.994	13.645	21.131
INDIRECT COSTS	SPARES						0.133	
	START UP						0.114	
	SPARES+STARTUP						0.247	
	CONTINGENCY						2.084	
	ENGINEERING SERVICES						0.833	
	A-E FEE						0.695	
GRAND TOTAL							17.503	

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PROCESS 26217

ECS GTWC16 PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
GT-HRSG-16/2600R-WC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 339. KW FUEL= 99351.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.132	0.026	0.159	0.143	0.328	0.460	4.634
	ISLAND TOTAL	0.132	0.026	0.159	0.143	0.328	0.460	4.634
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	5.319	0.688	0.398	0.358	1.443	6.762	68.067
	ISLAND TOTAL	5.319	0.688	0.398	0.358	1.443	6.762	68.067
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.503	0.436	0.841	0.757	2.034	2.538	25.542
	ISLAND TOTAL	0.503	0.436	0.841	0.757	2.034	2.538	25.542
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.168	0.347	0.529	0.476	1.353	1.520	15.301
	ISLAND TOTAL	0.168	0.347	0.529	0.476	1.353	1.520	15.301
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.149	0.130	0.117	0.397	0.397	3.996
	80. MASTER-CONTROL	0.094	0.014	0.023	0.021	0.059	0.152	1.532
	81. ELECTRIC-SWITCHGEAR-	0.	0.053	0.053	0.047	0.153	0.153	1.539
	82. INTERCONNECTING-PIPI	0.	0.118	0.118	0.106	0.343	0.343	3.450
	83. STRUCTURES-MISCELLAN	0.	0.408	0.374	0.337	1.118	1.118	11.257
	ISLAND TOTAL	0.094	0.742	0.699	0.629	2.070	2.163	21.774
TOTAL THIS CASE		6.216	2.239	2.626	2.363	7.228	13.444	23.786
INDIRECT COSTS	SPARES						0.124	
	START UP						0.111	
	SPARES+STARTUP						0.235	
	CONTINGENCY						2.052	
	ENGINEERING SERVICES						0.621	
	A-E FEE						0.684	
GRAND TOTAL							17.235	

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PROCESS 26217

ECS STIG10 PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
STIG-10-16/2200F-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 297. KW FUEL= 67150.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.146	0.029	0.175	0.158	0.362	0.508	5.834
		ISLAND TOTAL	0.146	0.029	0.175	0.158	0.362	0.508	5.834
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	5.043	0.508	0.333	0.299	1.140	6.182	70.939
		ISLAND TOTAL	5.043	0.508	0.333	0.299	1.140	6.182	70.939
4. BOTTOMING-CYCLE	40.	HEAT-RECOVERY-STEAM-	0.303	0.267	0.548	0.493	1.307	1.611	18.482
		ISLAND TOTAL	0.303	0.267	0.548	0.493	1.307	1.611	18.482
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	0.073	0.036	0.044	0.039	0.119	0.192	2.200
		ISLAND TOTAL	5.115	0.544	0.376	0.339	1.259	6.374	73.138
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.338	0.699	1.067	0.960	2.725	3.063	35.144
		ISLAND TOTAL	0.338	0.699	1.067	0.960	2.725	3.063	35.144
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	0.131	0.114	0.103	0.348	0.348	3.992.
	80.	MASTER-CONTROL	0.084	0.013	0.021	0.019	0.053	0.137	1.569
	81.	ELECTRIC-SWITCHGEAR-	0.	0.040	0.040	0.036	0.116	0.116	1.329
	82.	INTERCONNECTING-PIPI	0.	0.114	0.114	0.103	0.330	0.330	3.790
	83.	STRUCTURES-MISCELLAN	0.	0.473	0.436	0.393	1.302	1.302	14.935
		ISLAND TOTAL	0.084	0.770	0.725	0.653	2.148	2.232	25.616
TOTAL THIS CASE			5.986	2.309	2.891	2.602	7.802	13.788	29.857
INDIRECT COSTS		SPARES						0.120	
		START UP						0.112	
		SPARES+STARTUP						0.232	
		CONTINGENCY						2.103	

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PROCESS 26217

ECS STIG15 PROCESS MEGAWATTS 31.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 183.
STIG-15-16/2200F-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 280. KW FUEL= 82140.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.151	0.030	0.181	0.163	0.373	0.524	6.380
	ISLAND TOTAL	0.151	0.030	0.181	0.163	0.373	0.524	6.380
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	5.043	0.508	0.333	0.299	1.140	6.182	75.265
	ISLAND TOTAL	5.043	0.508	0.333	0.299	1.140	6.182	75.265
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.358	0.313	0.630	0.567	1.510	1.868	22.744
	ISLAND TOTAL	0.358	0.313	0.630	0.567	1.510	1.868	22.744
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	0.086	0.043	0.052	0.046	0.141	0.227	2.760
	ISLAND TOTAL	5.129	0.551	0.384	0.346	1.281	6.409	78.025
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.387	0.801	1.222	1.100	3.123	3.510	42.735
	ISLAND TOTAL	0.387	0.801	1.222	1.100	3.123	3.510	42.735
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.137	0.120	0.108	0.364	0.364	4.427
	80. MASTER-CONTROL	0.089	0.013	0.022	0.020	0.055	0.144	1.755
	81. ELECTRIC-SWITCHGEAR-	0.	0.040	0.040	0.036	0.116	0.116	1.410
	82. INTERCONNECTING-PIPI	0.	0.123	0.123	0.110	0.356	0.356	4.330
	83. STRUCTURES-MISCELLAN	0.	0.495	0.457	0.411	1.363	1.363	16.596
	ISLAND TOTAL	0.089	0.807	0.761	0.685	2.254	2.342	28.518
TOTAL THIS CASE		6.113	2.502	3.179	2.861	8.541	14.654	34.829
INDIRECT COSTS	SPARES						0.122	
	START UP						0.118	
	SPARES+STARTUP						0.240	
	CONTINGENCY						2.234	

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PROCESS 26218

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 244.
N O C O G E N E R A T I SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.219	0.044	0.142	0.128	0.314	0.532	0.
	3. LIMESTONE/DOLOMITE-U	0.161	0.139	0.124	0.112	0.375	0.536	0.
	ISLAND TOTAL	0.380	0.183	0.266	0.240	0.689	1.069	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.695	3.074	3.353	3.018	9.445	12.141	0.
	ISLAND TOTAL	2.695	3.074	3.353	3.018	9.445	12.141	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.311	0.282	0.254	0.847	0.847	0.
	ISLAND TOTAL	0.	0.311	0.282	0.254	0.847	0.847	0.
TOTAL THIS CASE		3.075	3.567	3.902	3.512	10.981	14.056	0.
INDIRECT COSTS	SPARES						0.062	
	START UP						0.105	
	SPARES+STARTUP						0.167	
	CONTINGENCY						2.133	
	ENGINEERING SERVICES						0.853	
	A-E FEE						0.711	
GRAND TOTAL							17.921	

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PROCESS 26218

ECS STM141 PROCESS MEGAWATTS 13.72 PROCESS TEMP 366. PROCESS HEAT(BTU*10**6) 244.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 342. KW FUEL= 100256.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.254	0.051	0.165	0.149	0.365	0.620	6.181
	3. LIMESTONE/DOLOMITE-U	0.183	0.150	0.134	0.120	0.403	0.586	5.849
	ISLAND TOTAL	0.438	0.201	0.299	0.269	0.769	1.206	12.030
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	5.029	1.257	1.085	0.977	3.319	8.348	83.268
	ISLAND TOTAL	5.029	1.257	1.085	0.977	3.319	8.348	83.268
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	2.504	0.	0.	0.	0.	2.504	24.972
	ISLAND TOTAL	2.504	0.	0.	0.	0.	2.504	24.972
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.362	0.330	0.297	0.989	0.989	9.868
	ISLAND TOTAL	0.	0.362	0.330	0.297	0.989	0.989	9.868
TOTAL THIS CASE		7.970	1.819	1.715	1.543	5.077	13.047	15.391
INDIRECT COSTS	SPARES						0.159	
	START UP						0.115	
	SPARES+STARTUP						0.274	
	CONTINGENCY						1.998	
	ENGINEERING SERVICES						0.799	
	A-E FEE						0.666	
GRAND TOTAL							16.785	

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PROCESS 26213

ECS STM141 PROCESS MEGAWATTS 13.72 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 244.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 342. KW FUEL= 100256.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.254	0.051	0.165	0.149	0.365	0.620	6.181
	3. LIMESTONE/DOLOMITE-U	0.183	0.150	0.134	0.120	0.403	0.586	5.849
	ISLAND TOTAL	0.438	0.201	0.299	0.269	0.769	1.206	12.030
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.190	3.169	3.605	3.244	10.018	13.208	131.743
	ISLAND TOTAL	3.190	3.169	3.605	3.244	10.018	13.208	131.743
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	2.504	0.	0.	0.	0.	2.504	24.972
	ISLAND TOTAL	2.504	0.	0.	0.	0.	2.504	24.972
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.362	0.330	0.297	0.989	0.989	9.868
	ISLAND TOTAL	0.	0.362	0.330	0.297	0.989	0.989	9.868
TOTAL THIS CASE		6.131	3.731	4.234	3.811	11.776	17.907	38.009
INDIRECT COSTS	SPARES						0.123	
	START UP						0.141	
	SPARES+STARTUP						0.264	
	CONTINGENCY						2.726	
	ENGINEERING SERVICES						1.090	
	A-E FEE						0.909	
GRAND TOTAL							22.895	

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PROCESS 28001

ECS ONOCGN NO COGENERATI PROCESS MEGAWATTS 0. SITE FUEL= COAL-FGD PROCESS TEMP. 366. COGEN FUEL BTU*10**6= 0. PROCESS HEAT(BTU*10**6) 1100. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.804	0.161	0.522	0.470	1.153	1.957	0.
	3. LIMESTONE/DOLOMITE-U	0.474	0.263	0.231	0.208	0.702	1.176	0.
	ISLAND TOTAL	1.278	0.423	0.754	0.678	1.855	3.133	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	8.924	10.509	11.236	10.112	31.857	40.781	0.
	ISLAND TOTAL	8.924	10.509	11.236	10.112	31.857	40.781	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.142	1.091	0.982	3.215	3.215	0.
	ISLAND TOTAL	0.	1.142	1.091	0.982	3.215	3.215	0.
TOTAL THIS CASE		10.202	12.074	13.080	11.772	36.927	47.129	0.
INDIRECT COSTS	SPARES						0.204	
	START UP						0.354	
	SPARES+STARTUP						0.558	
	CONTINGENCY						7.153	
	ENGINEERING SERVICES						2.861	
	A-E FEE						2.384	
GRAND TOTAL							60.085	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 28001

ECS PFBSTM PROCESS MEGAWATTS 99.44 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1100.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 1710. KW FUEL= 501074.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	1.022	0.204	0.665	0.598	1.467	2.490	4.969
	3.	LIMESTONE/DOLOMITE-U	0.579	0.295	0.260	0.234	0.789	1.367	2.729
		ISLAND TOTAL	1.601	0.500	0.924	0.832	2.256	3.857	7.697
2. FUEL-UTILIZATION-CLE	24.	COAL-FIRED-PFB-BOILE	23.838	4.529	3.337	3.004	10.870	34.709	69.269
		ISLAND TOTAL	23.838	4.529	3.337	3.004	10.870	34.709	69.269
4. BOTTOMING-CYCLE	43.	EXPANSION-TURBINE-GE	8.344	2.197	1.492	1.343	5.033	13.376	26.695
		ISLAND TOTAL	8.344	2.197	1.492	1.343	5.033	13.376	26.695
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	6.378	0.	0.	0.	0.	6.378	12.729
		ISLAND TOTAL	6.378	0.	0.	0.	0.	6.378	12.729
TOTAL THIS CASE			40.161	7.226	5.754	5.179	18.159	58.320	10.335
INDIRECT COSTS		SPARES						0.803	
		START UP						0.531	
		SPARES+STARTUP						1.335	
		CONTINGENCY						8.948	
		ENGINEERING SERVICES						3.679	
		A-E FEE						2.983	
GRAND TOTAL								75.165	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 28001

ECS STM088 PROCESS MEGAWATTS 32.50 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1100.
STM-TURB-865/825F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1161. KW FUEL= 340195.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.873	0.175	0.568	0.511	1.253	2.126	6.250
	3. LIMESTONE/DOLOMITE-U	0.508	0.274	0.241	0.217	0.731	1.239	3.641
	ISLAND TOTAL	1.381	0.448	0.808	0.727	1.984	3.365	9.891
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	14.121	3.530	2.837	2.553	8.921	23.042	67.732
	ISLAND TOTAL	14.121	3.530	2.837	2.553	8.921	23.042	67.732
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.489	0.	0.	0.	0.	4.489	13.195
	ISLAND TOTAL	4.489	0.	0.	0.	0.	4.489	13.195
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.557	2.906	3.177	2.860	8.943	11.500	33.803
	ISLAND TOTAL	16.678	6.437	6.014	5.413	17.864	34.542	101.535
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.241	1.189	1.070	3.501	3.501	10.290
	ISLAND TOTAL	0.	1.241	1.189	1.070	3.501	3.501	10.290
TOTAL THIS CASE		22.548	8.126	8.012	7.211	23.348	45.696	21.195
INDIRECT COSTS	SPARES						0.451	
	START UP						0.387	
	SPARES+STARTUP						0.838	
	CONTINGENCY						7.010	
	ENGINEERING SERVICES						2.804	
	A-E FEE						2.337	
GRAND TOTAL							58.885	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 28001

ECS STM141 PROCESS MEGAWATTS 58.47 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1100.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1529. KW FUEL= 446008.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	0.928	0.186	0.603	0.543	1.332	2.260	5.045
	3.	LIMESTONE/DOLOMITE-U	0.534	0.282	0.248	0.223	0.753	1.287	2.872
		ISLAND TOTAL	1.462	0.467	0.851	0.766	2.085	3.547	7.917
2. FUEL-UTILIZATION-CLE	23.	COAL-FIRED-AFB-BOILE	19.075	4.769	3.900	3.510	12.179	31.255	69.764
		ISLAND TOTAL	19.075	4.769	3.900	3.510	12.179	31.255	69.764
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	6.609	0.	0.	0.	0.	6.609	14.753
		ISLAND TOTAL	6.609	0.	0.	0.	0.	6.609	14.753
8. BALANCE-OF-PLANT	83.	STRUCTURES-MISCELLAN	0.	1.319	1.267	1.140	3.727	3.727	8.318
		ISLAND TOTAL	0.	1.319	1.267	1.140	3.727	3.727	8.318
TOTAL THIS CASE			27.147	6.556	6.019	5.417	17.991	45.138	12.091
INDIRECT COSTS		SPARES						0.543	
		START UP						0.397	
		SPARES+STARTUP						0.940	
		CONTINGENCY						6.912	
		ENGINEERING SERVICES						2.765	
		A-E FEE						2.304	
GRAND TOTAL								58.058	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 28002

ECS ONOCON PROCESS MEGAWATTS 0. PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1054.
NO COGENERATI SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.774	0.155	0.503	0.453	1.111	1.886	0.
	3. LIMESTONE/DOLOMITE-U	0.460	0.258	0.227	0.205	0.690	1.150	0.
	ISLAND TOTAL	1.234	0.413	0.731	0.658	1.801	3.036	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	8.691	10.217	10.935	9.842	30.993	39.684	0.
	ISLAND TOTAL	8.691	10.217	10.935	9.842	30.993	39.684	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.101	1.050	0.945	3.096	3.096	0.
	ISLAND TOTAL	0.	1.101	1.050	0.945	3.096	3.096	0.
TOTAL THIS CASE		9.925	11.730	12.716	11.444	35.890	45.815	0.
INDIRECT COSTS	SPARES						0.198	
	START UP						0.344	
	SPARES+STARTUP						0.542	
	CONTINGENCY						6.954	
	ENGINEERING SERVICES						2.781	
	A-E FEE						2.318	
GRAND TOTAL							58.410	

$\frac{58.410 \times 10^6}{1054} = \$55400$/Btu/hr.

$\frac{55400}{10^6} = \$554$/kWe @ 10^6 Btu/hr

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PROCESS 28002

ECS PFBSTM PROCESS MEGAWATTS 95.29 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1054.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 1638. KW FUEL= 480120.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.985	0.197	0.640	0.576	1.414	2.399	4.997
	3. LIMESTONE/DOLOMITE-U	0.561	0.290	0.255	0.230	0.775	1.336	2.783
	ISLAND TOTAL	1.547	0.487	0.896	0.806	2.189	3.735	7.780
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	23.137	4.396	3.239	2.915	10.550	33.688	70.165
	ISLAND TOTAL	23.137	4.396	3.239	2.915	10.550	33.688	70.165
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	8.097	2.160	1.467	1.321	4.949	13.046	27.172
	ISLAND TOTAL	8.097	2.160	1.467	1.321	4.949	13.046	27.172
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	6.198	0.	0.	0.	0.	6.198	12.910
	ISLAND TOTAL	6.198	0.	0.	0.	0.	6.198	12.910
TOTAL THIS CASE		38.979	7.044	5.602	5.042	17.688	56.667	10.501
INDIRECT COSTS	SPARES						0.780	
	START UP						0.516	
	SPARES+STARTUP						1.296	
	CONTINGENCY						8.694	
	ENGINEERING SERVICES						3.476	
	A-E FEE						2.896	
GRAND TOTAL							73.033	

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PROCESS 28002

ECS PFBSTM PROCESS MEGAWATTS 77.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1054.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 1327. KW FUEL= 386990.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	0.946	0.189	0.615	0.553	1.357	2.303	5.921
	3.	LIMESTONE/DOLOMITE-U	0.543	0.284	0.250	0.225	0.760	1.302	3.348
		ISLAND TOTAL	1.488	0.474	0.865	0.778	2.117	3.606	9.269
2. FUEL-UTILIZATION-CLE	24.	COAL-FIRED-PFB-BOILE	19.971	3.795	2.796	2.516	9.107	29.078	74.753
		ISLAND TOTAL	19.971	3.795	2.796	2.516	9.107	29.078	74.753
4. BOTTOMING-CYCLE	43.	EXPANSION-TURBINE-GE	6.987	1.990	1.350	1.215	4.555	11.542	29.671
		ISLAND TOTAL	6.987	1.990	1.350	1.215	4.555	11.542	29.671
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	5.384	0.	0.	0.	0.	5.384	13.840
		ISLAND TOTAL	5.384	0.	0.	0.	0.	5.384	13.840
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	2.383	2.696	2.956	2.661	8.313	10.696	27.498
		ISLAND TOTAL	22.354	6.491	5.752	5.177	17.420	39.774	102.250
TOTAL THIS CASE			36.213	8.955	7.967	7.171	24.092	60.305	18.434
INDIRECT COSTS		SPARES						0.724	
		START UP						0.531	
		SPARES+STARTUP						1.256	
		CONTINGENCY						9.234	
		ENGINEERING SERVICES						3.694	
		A-E FEE						3.078	
GRAND TOTAL								77.567	

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PROCESS 28002

ECS STM141 PROCESS MEGAWATTS 56.03 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1054.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1465. KW FUEL= 429273.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	0.894	0.179	0.581	0.523	1.284	2.178	5.074
	3.	LIMESTONE/DOLOMITE-U	0.518	0.277	0.244	0.219	0.739	1.257	2.929
		ISLAND TOTAL	1.412	0.456	0.825	0.742	2.023	3.436	8.003
2. FUEL-UTILIZATION-CLE	23.	COAL-FIRED-AFB-BOILE	18.602	4.650	3.826	3.443	11.919	30.520	71.098
		ISLAND TOTAL	18.602	4.650	3.826	3.443	11.919	30.520	71.098
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	6.423	0.	0.	0.	0.	6.423	14.963
		ISLAND TOTAL	6.423	0.	0.	0.	0.	6.423	14.963
8. BALANCE-OF-PLANT	83.	STRUCTURES-MISCELLAN	0.	1.272	1.219	1.097	3.588	3.588	8.359
		ISLAND TOTAL	0.	1.272	1.219	1.097	3.588	3.588	8.359
TOTAL THIS CASE			26.437	6.378	5.870	5.283	17.530	43.967	12.306
INDIRECT COSTS		SPARES						0.529	
		START UP						0.387	
		SPARES+STARTUP						0.916	
		CONTINGENCY						6.732	
		ENGINEERING SERVICES						2.693	
		A-E FEE						2.244	
GRAND TOTAL								56.552	

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PROCESS 28002

ECS STM141 PROCESS MEGAWATTS 56.03 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1054.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 1465. KW FUEL= 429273.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.894	0.179	0.581	0.523	1.284	2.178	5.074
	3. LIMESTONE/DOLOMITE-U	0.518	0.277	0.244	0.219	0.739	1.257	2.929
	ISLAND TOTAL	1.412	0.456	0.825	0.742	2.023	3.436	8.003
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	10.666	10.754	12.052	10.847	33.653	44.318	103.240
	ISLAND TOTAL	10.666	10.754	12.052	10.847	33.653	44.318	103.240
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	6.423	0.	0.	0.	0.	6.423	14.963
	ISLAND TOTAL	6.423	0.	0.	0.	0.	6.423	14.963
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.272	1.219	1.097	3.588	3.588	8.359
	ISLAND TOTAL	0.	1.272	1.219	1.097	3.588	3.588	8.359
TOTAL THIS CASE		18.501	12.481	14.096	12.687	39.264	57.765	29.554
INDIRECT COSTS	SPARES						0.370	
	START UP						0.451	
	SPARES+STARTUP						0.821	
	CONTINGENCY						8.788	
	ENGINEERING SERVICES						3.515	
	A-E FEE						2.929	
GRAND TOTAL							73.818	

GENERAL ELECTRIC COMPANY

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PROCESS 28002

ECS TIHRSG PROCESS MEGAWATTS 87.30 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 1054.
THERMIONIC-HRSG SITE FUEL= COAL COGEN FUEL BTU*10**6= 1632. KW FUEL= 478283.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.982	0.196	0.638	0.575	1.409	2.391	5.000
	ISLAND TOTAL	0.982	0.196	0.638	0.575	1.409	2.391	5.000
3. ENERGY-CONVERSION	33. THERMIONIC-BOILER/GE	44.419	46.158	43.658	39.292	131.108	175.527	366.993
	ISLAND TOTAL	44.419	46.158	43.658	39.292	131.108	175.527	366.993
TOTAL THIS CASE		45.401	46.354	44.296	39.867	132.517	177.918	83.354
INDIRECT COSTS	SPARES						0.908	
	START UP						1.381	
	SPARES+STARTUP						2.289	
	CONTINGENCY						27.031	
	ENGINEERING SERVICES						10.812	
	A-E FEE						9.010	
GRAND TOTAL							227.060	

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PROCESS 28003

ECS ONOCGN N O C O G E N E R A T I PROCESS MEGAWATTS 0. SITE FUEL= COAL-FGD PROCESS TEMP. 366. COGEN FUEL BTU*10**6= 0. PROCESS HEAT(BTU*10**6) 947. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.706	0.141	0.459	0.413	1.013	1.719	0.
	3. LIMESTONE/DOLOMITE-U	0.426	0.247	0.217	0.196	0.660	1.086	0.
	ISLAND TOTAL	1.132	0.388	0.676	0.609	1.673	2.805	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	8.132	9.520	10.217	9.195	28.932	37.064	0.
	ISLAND TOTAL	8.132	9.520	10.217	9.195	28.932	37.064	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.004	0.954	0.858	2.816	2.816	0.
	ISLAND TOTAL	0.	1.004	0.954	0.858	2.816	2.816	0.
TOTAL THIS CASE		9.264	10.911	11.847	10.662	33.420	42.685	0.
INDIRECT COSTS	SPARES						0.185	
	START UP						0.320	
	SPARES+STARTUP						0.506	
	CONTINGENCY						6.479	
	ENGINEERING SERVICES						2.591	
	A-E FEE						2.160	
GRAND TOTAL							54.420	

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PROCESS 28003

ECS CC0822 PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
GTST-08/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 962. KW FUEL= 281992.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.300	0.060	0.360	0.324	0.743	1.043	3.699
	ISLAND TOTAL	0.300	0.060	0.360	0.324	0.743	1.043	3.699
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	9.900	1.071	0.635	0.572	2.277	12.177	43.184
	30. STEAM-TURBINE-GENERA	3.335	0.	0.	0.	0.	3.335	11.826
	ISLAND TOTAL	13.235	1.071	0.635	0.572	2.277	15.512	55.010
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	1.093	0.932	1.667	1.501	4.100	5.192	18.413
	ISLAND TOTAL	1.093	0.932	1.667	1.501	4.100	5.192	18.413
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	1.989	2.108	3.719	3.347	9.174	11.162	39.583
	ISLAND TOTAL	1.989	2.108	3.719	3.347	9.174	11.162	39.583
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.374	0.327	0.295	0.996	0.996	3.534
	80. MASTER-CONTROL	0.182	0.027	0.045	0.041	0.114	0.296	1.048
	81. ELECTRIC-SWITCHGEAR-	0.	0.112	0.112	0.101	0.326	0.326	1.155
	82. INTERCONNECTING-PIPI	0.	0.338	0.338	0.304	0.980	0.980	3.474
	83. STRUCTURES-MISCELLAN	0.	1.379	1.327	1.194	3.901	3.901	13.832
	ISLAND TOTAL	0.182	2.231	2.150	1.935	6.318	6.498	23.043
TOTAL THIS CASE		16.798	6.401	8.531	7.678	22.610	39.408	27.227
INDIRECT COSTS	SPARES						0.336	
	START UP						0.317	
	SPARES+STARTUP						0.653	
	CONTINGENCY						5.009	
	ENGINEERING SERVICES						2.404	
	A-E FEE						2.003	

GRAN. TAL 50.477

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PROCESS 28003

ECS FCMCCL PROCESS MEGAWATTS 178.25 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
FUEL-CL-MOLTCARB-CL SITE FUEL= COAL COGEN FUEL. BTU*10**6= 2001. KW FUEL= 586271.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	1.171	0.234	0.761	0.685	1.680	2.851	4.864
		ISLAND TOTAL	1.171	0.234	0.761	0.685	1.680	2.851	4.864
2. FUEL-UTILIZATION-CLE	25.	COAL-GASIFIER	21.685	15.396	13.878	12.491	41.765	63.451	108.227
		ISLAND TOTAL	21.685	15.396	13.878	12.491	41.765	63.451	108.227
3. ENERGY-CONVERSION	35.	FUEL-CELLS-MOLTEN-CA	27.821	8.346	4.451	4.006	16.804	44.625	76.116
		ISLAND TOTAL	27.821	8.346	4.451	4.006	16.804	44.625	76.116
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	1.801	1.576	1.418	4.795	4.795	8.178
	80.	MASTER-CONTROL	0.778	0.117	0.195	0.175	0.486	1.264	2.156
	81.	ELECTRIC-SWITCHGEAR-	0.	0.781	0.781	0.703	2.264	2.264	3.862
	82.	INTERCONNECTING-PIPI	0.	1.485	1.485	1.337	4.307	4.307	7.347
	83.	STRUCTURES-MISCELLAN	0.	1.665	1.613	1.452	4.730	4.730	8.067
		ISLAND TOTAL	0.778	5.848	5.649	5.085	16.582	17.360	29.611
TOTAL THIS CASE			51.455	29.825	24.740	22.266	76.832	128.287	37.980
INDIRECT COSTS		SPARES						1.029	
		START UP						1.060	
		SPARES+STARTUP						2.089	
		CONTINGENCY						19.556	
		ENGINEERING SERVICES						7.823	
		A-E FEE						6.519	
GRAND TOTAL								164.274	

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PROCESS 28003

ECS FCMCCL PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
FUEL-CL-MOLTCARB-CL SITE FUEL= COAL COGEN FUEL BTU*10**6= 1091. KW FUEL= 319690.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.964	0.193	0.627	0.564	1.383	2.346	7.343
	ISLAND TOTAL	0.964	0.193	0.627	0.564	1.383	2.346	7.343
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	14.755	10.476	9.443	8.499	28.417	43.172	135.044
	ISLAND TOTAL	14.755	10.476	9.443	8.499	28.417	43.172	135.044
3. ENERGY-CONVERSION	35. FUEL-CELLS-MOLTEN-CA	16.901	5.070	2.704	2.434	10.208	27.109	84.798
	ISLAND TOTAL	16.901	5.070	2.704	2.434	10.208	27.109	84.798
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.834	4.471	4.810	4.329	13.609	17.443	54.561
	ISLAND, TOTAL	18.588	14.947	14.252	12.827	42.027	60.615	189.605
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	1.488	1.302	1.171	3.961	3.961	12.389
	80. MASTER-CONTROL	0.687	0.103	0.172	0.155	0.430	1.117	3.493
	81. ELECTRIC-SWITCHGEAR-	0.	0.449	0.449	0.404	1.302	1.302	4.074
	82. INTERCONNECTING-PIPI	0.	1.247	1.247	1.122	3.616	3.616	11.310
	83. STRUCTURES-MISCELLAN	0.	1.370	1.318	1.186	3.875	3.875	12.120
	ISLAND TOTAL	0.687	4.657	4.487	4.039	13.183	13.870	43.386
TOTAL THIS CASE		37.140	24.867	22.071	19.864	66.601	103.942	62.134
INDIRECT COSTS	SPARES						0.743	
	START UP						0.841	
	SPARES+STARTUP						1.584	
	CONTINGENCY						15.829	
	ENGINEERING SERVICES						6.332	
	A-E FEE						5.276	
GRAND TOTAL							132.962	

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PROCESS 28003

ECS FCSTCL PROCESS MEGAWATTS 259.57 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
FUEL-CL-STMTB-COAL SITE FUEL= COAL COGEN FUEL BTU*10**6= 2352. KW FUEL= 689310.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.347	0.269	0.676	0.788	1.933	3.280	4.758
	ISLAND TOTAL	1.347	0.269	0.676	0.788	1.933	3.280	4.758
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	24.033	17.063	15.381	13.843	46.288	70.321	102.016
	ISLAND TOTAL	24.033	17.063	15.381	13.843	46.288	70.321	102.016
3. ENERGY-CONVERSION	35. FUEL-CELLS-MOLTEN-CA	31.781	9.534	5.085	4.576	19.196	50.976	73.953
	30. STEAM-TURBINE-GENERA	5.951	0.	0.	0.	0.	5.951	8.633
	ISLAND TOTAL	37.732	9.534	5.085	4.576	19.196	56.927	82.586
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	2.066	1.808	1.627	5.502	5.502	7.981
	80. MASTER-CONTROL	0.988	0.148	0.247	0.222	0.618	1.606	2.330
	81. ELECTRIC-SWITCHGEAR-	0.	1.100	1.100	0.990	3.190	3.190	4.628
	82. INTERCONNECTING-PIPI	0.	2.081	2.081	1.873	6.036	6.036	8.757
	83. STRUCTURES-MISCELLAN	0.	1.915	1.866	1.679	5.459	5.459	7.920
	ISLAND TOTAL	0.988	7.311	7.102	6.392	20.805	21.793	31.616
TOTAL THIS CASE		64.100	34.178	28.444	25.598	88.221	152.321	37.138
INDIRECT COSTS	SPARES						1.282	
	START UP						1.267	
	SPARES+STARTUP						2.549	
	CONTINGENCY						23.231	
	ENGINEERING SERVICES						9.292	
	A-E FEE						7.744	
GRAND TOTAL							195.137	

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PROCESS 28003

ECS FCSTCL PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
FUEL-CL-STMTB-COAL SITE FUEL= COAL COGEN FUEL BTU*10**6= 881. KW FUEL= 258123.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.954	0.191	0.620	0.558	1.369	2.322	8.997
	ISLAND TOTAL	0.954	0.191	0.620	0.558	1.369	2.322	8.997
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	12.881	9.145	8.244	7.419	24.808	37.689	146.011
	ISLAND TOTAL	12.881	9.145	8.244	7.419	24.808	37.689	146.011
3. ENERGY-CONVERSION	35. FUEL-CELLS-MOLTEN-CA	14.176	4.253	2.268	2.041	8.562	22.738	88.091
	30. STEAM-TURBINE-GENERA	3.083	0.	0.	0.	0.	3.083	11.943
	ISLAND TOTAL	17.259	4.253	2.268	2.041	8.562	25.821	100.034
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	6.079	6.986	7.585	6.827	21.398	27.477	106.450
	ISLAND TOTAL	16.960	16.131	15.829	14.246	46.206	65.166	252.461
6. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	1.472	1.288	1.159	3.919	3.919	15.182
	80. MASTER-CONTROL	0.741	0.111	0.185	0.167	0.463	1.205	4.668
	81. ELECTRIC-SWITCHGEAR-	0.	0.449	0.449	0.404	1.302	1.302	5.046
	82. INTERCONNECTING-PIPI	0.	1.388	1.388	1.249	4.025	4.025	15.592
	83. STRUCTURES-MISCELLAN	0.	1.356	1.303	1.173	3.832	3.832	14.846
	ISLAND TOTAL	0.741	4.776	4.614	4.152	13.542	14.283	55.334
TOTAL THIS CASE		37.914	25.351	23.330	20.997	69.679	107.592	81.347
INDIRECT COSTS	SPARES						0.758	
	START UP						0.866	
	SPARES+STARTUP						1.624	
	CONTINGENCY						16.382	
	ENGINEERING SERVICES						6.553	
	A-E FEE						5.461	

GRAN TOTAL 137.613

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PROCESS 28003

ECS GTAC12 PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
GT-HRSG-12/2200R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 1087. KW FUEL= 318642.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.300	0.060	0.359	0.324	0.743	1.043	3.272
	ISLAND TOTAL	0.300	0.060	0.359	0.324	0.743	1.043	3.272
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	13.456	1.413	0.842	0.758	3.013	16.470	51.687
	ISLAND TOTAL	13.456	1.413	0.842	0.758	3.013	16.470	51.687
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	1.453	1.248	2.298	2.068	5.614	7.067	22.180
	ISLAND TOTAL	1.453	1.248	2.298	2.068	5.614	7.067	22.180
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	1.776	1.883	3.322	2.989	8.194	9.970	31.289
	ISLAND TOTAL	1.776	1.883	3.322	2.989	8.194	9.970	31.289
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.494	0.432	0.389	1.314	1.314	4.124
	80. MASTER-CONTROL	0.228	0.034	0.057	0.051	0.143	0.371	1.163
	81. ELECTRIC-SWITCHGEAR-	0.	0.148	0.148	0.133	0.430	0.430	1.349
	82. INTERCONNECTING-PIPI	0.	0.415	0.415	0.373	1.203	1.203	3.775
	83. STRUCTURES-MISCELLAN	0.	1.378	1.326	1.193	3.897	3.897	12.228
	ISLAND TOTAL	0.228	2.469	2.377	2.140	6.986	7.214	22.640
TOTAL THIS CASE		17.214	7.072	9.199	8.279	24.550	41.763	25.981
INDIRECT COSTS	SPARES						0.344	
	START UP						0.335	
	SPARES+STARTUP						0.679	
	CONTINGENCY						6.366	
	ENGINEERING SERVICES						2.547	
	A-E FEE						2.122	
GRAN TOTAL							53.478	

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PROCESS 28003

ECS GTSOAR PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 1144. KW FUEL= 335123.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.308	0.062	0.370	0.333	0.764	1.072	3.199
	ISLAND TOTAL	0.308	0.062	0.370	0.333	0.764	1.072	3.199
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	14.414	1.447	0.868	0.781	3.096	17.511	52.252
	ISLAND TOTAL	14.414	1.447	0.868	0.781	3.096	17.511	52.252
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	1.415	1.210	2.185	1.967	5.362	6.777	20.224
	ISLAND TOTAL	1.415	1.210	2.185	1.967	5.362	6.777	20.224
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	1.817	1.926	3.398	3.058	8.381	10.198	30.432
	ISLAND TOTAL	1.817	1.926	3.398	3.058	8.381	10.198	30.432
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.514	0.450	0.405	1.369	1.369	4.085
	80. MASTER-CONTROL	0.230	0.035	0.058	0.052	0.144	0.374	1.117
	81. ELECTRIC-SWITCHGEAR-	0.	0.148	0.148	0.133	0.430	0.430	1.283
	82. INTERCONNECTING-PIPI	0.	0.421	0.421	0.378	1.220	1.220	3.639
	83. STRUCTURES-MISCELLAN	0.	1.437	1.384	1.246	4.067	4.067	12.135
	ISLAND TOTAL	0.230	2.554	2.461	2.214	7.229	7.460	22.259
TOTAL THIS CASE		18.185	7.199	9.281	8.353	24.833	43.018	24.926
INDIRECT COSTS	SPARES						0.364	
	START UP						0.347	
	SPARES+STARTUP						0.710	
	CONTINGENCY						6.559	
	ENGINEERING SERVICES						2.624	
	A-E FEE						2.186	
GRAND TOTAL							55.098	

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PROCESS 28003

ECS HEGTOO PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
HELIUM-GT-OO-REGEN SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1884. KW FUEL= 552192.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.128	0.226	0.733	0.660	1.619	2.747	4.974
	ISLAND TOTAL	1.128	0.226	0.733	0.660	1.619	2.747	4.974
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	34.062	13.157	10.091	9.082	32.329	66.391	120.231
	ISLAND TOTAL	34.062	13.157	10.091	9.082	32.329	66.391	120.231
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	15.747	6.082	4.665	4.199	14.946	30.693	55.584
	ISLAND TOTAL	15.747	6.082	4.665	4.199	14.946	30.693	55.584
5. HEAT-SINK	50. COOLING-TOWERS-WET-I	1.367	0.176	0.629	0.566	1.372	2.739	4.961
	ISLAND TOTAL	1.367	0.176	0.629	0.566	1.372	2.739	4.961
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	0.683	0.714	0.823	0.740	2.276	2.959	5.359
	ISLAND TOTAL	34.744	13.870	10.913	9.822	34.605	69.350	125.590
TOTAL THIS CASE		52.986	20.355	16.941	15.247	52.542	105.529	27.611
INDIRECT COSTS	SPARES						1.060	
	START UP						0.903	
	SPARES+STARTUP						1.963	
	CONTINGENCY						16.124	
	ENGINEERING SERVICES						6.449	
	A-E FEE						5.375	
GRAND TOTAL							135.439	

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PROCESS 28003

ECS HEGT60 PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
HELIUM-GT-60-REGEN SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1280. KW FUEL= 375235.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.149	0.230	0.747	0.672	1.649	2.797	7.455
	ISLAND TOTAL	1.149	0.230	0.747	0.672	1.649	2.797	7.455
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	31.347	12.930	9.914	8.922	31.766	63.113	168.196
	ISLAND TOTAL	31.347	12.930	9.914	8.922	31.766	63.113	168.196
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	15.251	6.290	4.823	4.341	15.454	30.705	81.829
	ISLAND TOTAL	15.251	6.290	4.823	4.341	15.454	30.705	81.829
5. HEAT-SINK	50. COOLING-TOWERS-WET-I	1.367	0.176	0.629	0.566	1.372	2.739	7.300
	ISLAND TOTAL	1.367	0.176	0.629	0.566	1.372	2.739	7.300
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	4.586	5.410	5.778	5.200	16.387	20.973	55.894
	ISLAND TOTAL	35.933	18.339	15.691	14.122	48.153	84.086	224.090
TOTAL THIS CASE		53.700	25.036	21.690	19.701	66.628	120.328	52.504
INDIRECT COSTS	SPARES						1.074	
	START UP						1.006	
	SPARES+STARTUP						2.080	
	CONTINGENCY						18.361	
	ENGINEERING SERVICES						7.344	
	A-E FEE						6.120	
GRAND TOTAL							154.234	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 28003

ECS HEGT85 PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
HELIUM-GT-85-REGEN SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1033. KW FUEL= 302759.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.173	0.235	0.762	0.686	1.683	2.855	9.430
	ISLAND TOTAL	1.173	0.235	0.762	0.686	1.683	2.855	9.430
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	26.924	10.938	8.515	7.663	27.117	54.041	178.495
	ISLAND TOTAL	26.924	10.938	8.515	7.663	27.117	54.041	178.495
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	20.416	8.294	6.457	5.811	20.561	40.977	135.345
	ISLAND TOTAL	20.416	8.294	6.457	5.811	20.561	40.977	135.345
5. HEAT-SINK	50. COOLING-TOWERS-WET-I	1.367	0.176	0.629	0.566	1.372	2.739	9.047
	ISLAND TOTAL	1.367	0.176	0.629	0.566	1.372	2.739	9.047
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	7.465	8.691	9.359	8.423	26.474	33.938	112.097
	ISLAND TOTAL	34.389	19.630	17.874	16.087	53.590	87.979	290.592
TOTAL THIS CASE		57.344	28.335	25.722	23.150	77.206	134.551	76.463
INDIRECT COSTS	SPARES						1.147	
	START UP						1.114	
	SPARES+STARTUP						2.261	
	CONTINGENCY						20.522	
	ENGINEERING SERVICES						8.209	
	A-E FEE						6.841	
GRAND TOTAL							172.383	

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PROCESS 28003

ECS IGGTST PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
INT-GAS-GTST-12/2100 SITE FUEL= COAL COGEN FUEL BTU*10**6= 1193. KW FUEL= 349657.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.018	0.204	0.662	0.595	1.460	2.478	7.087
	ISLAND TOTAL	1.018	0.204	0.662	0.595	1.460	2.478	7.087
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	14.535	10.175	9.448	8.503	28.126	42.661	122.007
	ISLAND TOTAL	14.535	10.175	9.448	8.503	28.126	42.661	122.007
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	10.777	0.874	0.661	0.595	2.129	12.906	36.910
	30. STEAM-TURBINE-GENERA	3.965	0.	0.	0.	0.	3.965	11.339
	ISLAND TOTAL	14.742	0.874	0.661	0.595	2.129	16.871	48.250
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	1.622	1.388	2.525	2.273	6.186	7.809	22.332
	ISLAND TOTAL	1.622	1.388	2.525	2.273	6.186	7.809	22.332
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.838	4.477	4.816	4.334	13.627	17.465	49.949
	ISLAND TOTAL	18.374	14.652	14.264	12.837	41.752	60.126	171.957
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.628	0.549	0.494	1.671	1.671	4.778
	80. MASTER-CONTROL	0.275	0.041	0.069	0.062	0.172	0.447	1.278
	81. ELECTRIC-SWITCHGEAR-	0.	0.404	0.404	0.364	1.172	1.172	3.352
	82. INTERCONNECTING-PIPI	0.	0.499	0.499	0.449	1.447	1.447	4.139
	83. STRUCTURES-MISCELLAN	0.	1.447	1.394	1.255	4.096	4.096	11 714
	ISLAND TOTAL	0.275	3.019	2.915	2.624	8.558	8.833	25.262
TOTAL THIS CASE		36.030	20.136	21.026	18.924	60.086	96.116	54.121
INDIRECT COSTS	SPARES						0.721	
	START UP						0.772	
	SPARES+STARTUP						1.493	

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PROCESS 28003

ECS PFBSTM PROCESS MEGAWATTS 85.61 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 1472. KW FUEL= 431379.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.898	0.180	0.584	0.525	1.289	2.187	5.071
	3. LIMESTONE/DOLOMITE-U	0.520	0.277	0.244	0.220	0.741	1.261	2.923
	ISLAND TOTAL	1.418	0.457	0.828	0.745	2.030	3.448	7.993
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	21.469	4.079	3.006	2.705	9.790	31.259	72.462
	ISLAND TOTAL	21.469	4.079	3.006	2.705	9.790	31.259	72.462
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	7.512	2.072	1.407	1.266	4.744	12.256	28.412
	ISLAND TOTAL	7.512	2.072	1.407	1.266	4.744	12.256	28.412
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	5.770	0.	0.	0.	0.	5.770	13.375
	ISLAND TOTAL	5.770	0.	0.	0.	0.	5.770	13.375
TOTAL THIS CASE		36.168	6.608	5.240	4.716	16.564	52.733	10.933
INDIRECT COSTS	SPARES						0.723	
	START UP						0.480	
	SPARES+STARTUP						1.204	
	CONTINGENCY						8.090	
	ENGINEERING SERVICES						3.236	
	A-E FEE						2.697	
GRAND TOTAL							67.960	

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PROCESS 28003

ECS T1HRSG PROCESS MEGAWATTS 60.47 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
THERMIONIC-HRSG SITE FUEL= COAL COGEN FUEL BTU*10**6= 1466. KW FUEL= 429729.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.895	0.179	0.582	0.524	1.285	2.180	5.073
	ISLAND TOTAL	0.895	0.179	0.582	0.524	1.285	2.180	5.073
3. ENERGY-CONVERSION	33. THERMIONIC-BOILER/GE	39.909	44.670	40.500	36.450	121.619	161.529	375.886
	ISLAND TOTAL	39.909	44.670	40.500	36.450	121.619	161.529	375.886
TOTAL THIS CASE		40.805	44.849	41.082	36.974	122.904	163.709	86.039
INDIRECT COSTS	SPARES						0.816	
	START UP						1.267	
	SPARES+STARTUP						2.083	
	CONTINGENCY						24.869	
	ENGINEERING SERVICES						9.948	
	A-E FEE						8.290	
GRAND TOTAL							208.898	

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PROCESS 28003

ECS TISTMT PROCESS MEGAWATTS 97.20 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 947.
TI-STMTB-1465/1000F SITE FUEL= COAL COGEN FUEL BTU*10**6= 1336. KW FUEL= 391469.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.921	0.184	0.599	0.539	1.322	2.243	5.729
	ISLAND TOTAL	0.921	0.184	0.599	0.539	1.322	2.243	5.729
3. ENERGY-CONVERSION	33. THERMIONIC-BOILER/GE	36.356	41.838	37.935	34.142	113.915	150.272	383.866
	30. STEAM-TURBINE-GENERA	5.305	0.	0.	0.	0.	5.305	13.553
	ISLAND TOTAL	41.662	41.838	37.935	34.142	113.915	155.577	397.419
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.014	2.254	2.488	2.239	6.982	8.996	22.979
	ISLAND TOTAL	2.014	2.254	2.488	2.239	6.982	8.996	22.979
TOTAL THIS CASE		44.596	44.277	41.022	36.920	122.219	166.815	94.312
INDIRECT COSTS	SPARES						0.892	
	START UP						1.299	
	SPARES+STARTUP						2.191	
	CONTINGENCY						25.351	
	ENGINEERING SERVICES						10.140	
	A-E FEE						8.450	
GRAND TOTAL							212.948	

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PROCESS 28121

ECS ONOCGN NO COGENERATI — PROCESS MEGAWATTS 0. — SITE FUEL= COAL-FGD — PROCESS TEMP. 338. — COGEN FUEL BTU*10**6= 0. — PROCESS HEAT(BTU*10**6) 265. — KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.235	0.047	0.153	0.137	0.337	0.572	0.
	3. LIMESTONE/DOLOMITE-U	0.171	0.144	0.128	0.116	0.388	0.559	0.
	ISLAND TOTAL	0.406	0.191	0.281	0.253	0.725	1.131	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.837	3.246	3.534	3.181	9.960	12.797	0.
	ISLAND TOTAL	2.837	3.246	3.534	3.181	9.960	12.797	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.334	0.304	0.274	0.911	0.911	0.
	ISLAND TOTAL	0.	0.334	0.304	0.274	0.911	0.911	0.
TOTAL THIS CASE		3.243	3.770	4.119	3.707	11.597	14.839	0.
INDIRECT COSTS	SPARES						0.065	
	START UP						0.111	
	SPARES+STARTUP						0.176	
	CONTINGENCY						2.252	
	ENGINEERING SERVICES						0.901	
	A-E FEE						0.751	
GRAND TOTAL							18.920	

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PROCESS 28121

ECS CC1622 PROCESS MEGAWATTS 89.63 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
3TST-16/2200/865--AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 801. KW FUEL= 234832.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.200	0.040	0.240	0.216	0.496	0.696	2.964
	ISLAND TOTAL	0.200	0.040	0.240	0.216	0.496	0.696	2.964
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	11.648	1.273	0.754	0.679	2.706	14.354	61.125
	30. STEAM-TURBINE-GENERA	2.623	0.	0.	0.	0.	2.623	11.169
	ISLAND TOTAL	14.271	1.273	0.754	0.679	2.706	16.977	72.294
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.852	0.728	1.315	1.184	3.227	4.079	17.368
	ISLAND TOTAL	0.852	0.728	1.315	1.184	3.227	4.079	17.368
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.207	0.181	0.163	0.551	0.551	2.346
	80. MASTER-CONTROL	0.126	0.019	0.031	0.028	0.078	0.204	0.869
	81. ELECTRIC-SWITCHGEAR-	0.	0.104	0.104	0.094	0.302	0.302	1.288
	82. INTERCONNECTING-PIPI	0.	0.200	0.200	0.180	0.581	0.581	2.473
	83. STRUCTURES-MISCELLAN	0.	0.755	0.709	0.638	2.103	2.103	8.954
	ISLAND TOTAL	0.126	1.285	1.226	1.104	3.615	3.741	15.930
TOTAL THIS CASE		15.448	3.326	3.536	3.182	10.044	25.493	13.550
INDIRECT COSTS	SPARES						0.309	
	START UP						0.223	
	SPARES+STARTUP						0.532	
	CONTINGENCY						3.904	
	ENGINEERING SERVICES						1.561	
	A-E FEE						1.301	
GRAND TOTAL							32.791	

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PROCESS 28121

ECS CC1626 PROCESS MEGAWATTS 99.54 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
GTST-16/2600/1465-WC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 879. KW FUEL= 257673.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.211	0.042	0.253	0.228	0.524	0.735	2.851
	ISLAND TOTAL	0.211	0.042	0.253	0.228	0.524	0.735	2.851
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	11.317	1.269	0.749	0.674	2.691	14.008	54.364
	30. STEAM-TURBINE-GENERA	2.809	0.	0.	0.	0.	2.809	10.903
	ISLAND TOTAL	14.126	1.269	0.749	0.674	2.691	16.818	65.267
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.863	0.737	1.330	1.197	3.264	4.127	16.017
	ISLAND TOTAL	0.863	0.737	1.330	1.197	3.264	4.127	16.017
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.224	0.196	0.176	0.596	0.596	2.314
	80. MASTER-CONTROL	0.134	0.020	0.034	0.030	0.084	0.218	0.847
	81. ELECTRIC-SWITCHGEAR-	0.	0.115	0.115	0.103	0.333	0.333	1.291
	82. INTERCONNECTING-PIPI	0.	0.220	0.220	0.198	0.638	0.638	2.477
	83. STRUCTURES-MISCELLAN	0.	0.818	0.771	0.694	2.283	2.283	8.860
	ISLAND TOTAL	0.134	1.397	1.335	1.202	3.934	4.068	15.788
TOTAL THIS CASE		15.334	3.445	3.668	3.301	10.413	25.747	12.810
INDIRECT COSTS	SPARES						0.307	
	START UP						0.224	
	SPARES+STARTUP						0.531	
	CONTINGENCY						3.942	
	ENGINEERING SERVICES						1.577	
	A-E FEE						1.314	
GRAND TOTAL							33.111	

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PROCESS 28121

ECS FCMCDS PROCESS MEGAWATTS 120.00 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
FUEL-CL-MOLTCARB-DS SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 994. KW FUEL= 291219.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.232	0.046	0.278	0.250	0.575	0.807	2.770
		ISLAND TOTAL	0.232	0.046	0.278	0.250	0.575	0.807	2.770
2. FUEL-UTILIZATION-CLE	28.	REFORMER-SHIFTER-AND	12.928	1.293	1.939	1.745	4.977	17.906	61.485
		ISLAND TOTAL	12.928	1.293	1.939	1.745	4.977	17.906	61.485
3. ENERGY-CONVERSION	35.	FUEL-CELLS-MOLTEN-CA	22.492	2.249	3.374	3.036	8.659	31.151	106.968
		ISLAND TOTAL	22.492	2.249	3.374	3.036	8.659	31.151	106.968
2. FUEL-UTILIZATION-CLE	21	OIL-FIRED-BOILER	0.138	0.286	0.437	0.393	1.115	1.254	4.304
		ISLAND TOTAL	13.066	1.579	2.376	2.138	6.093	19.159	65.790
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	1.027	0.899	0.809	2.735	2.735	9.391
	80.	MASTER-CONTROL	0.617	0.093	0.154	0.139	0.386	1.003	3.443
	81.	ELECTRIC-SWITCHGEAR-	0.	0.544	0.544	0.490	1.578	1.578	5.420
	82.	INTERCONNECTING-PIPI	0.	0.536	0.536	0.482	1.553	1.553	5.333
	83.	STRUCTURES-MISCELLAN	0.	0.940	0.891	0.802	2.633	2.633	9.043
		ISLAND TOTAL	0.617	3.140	3.024	2.722	8.885	9.502	32.630
TOTAL THIS CASE			36.407	7.014	9.052	8.147	24.212	60.619	27.974
INDIRECT COSTS		SPARES						0.728	
		START UP						0.525	
		SPARES+STARTUP						1.253	
		CONTINGENCY						9.291	
		ENGINEERING SERVICES						3.712	
		A-E FEE						3.094	
GRA TOTAL								77.959	

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PROCESS 28121

ECS FCSTCL PROCESS MEGAWATTS 79.39 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 255.
FUEL-CL-STMTB-COAL SITE FUEL= COAL COGEN FUEL BTU*10**6= 688. KW FUEL= 201564.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.465	0.093	0.302	0.272	0.668	1.133	5.622
	ISLAND TOTAL	0.465	0.093	0.302	0.272	0.668	1.133	5.622
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	11.009	7.816	7.046	6.341	21.203	32.211	159.807
	ISLAND TOTAL	11.009	7.816	7.046	6.341	21.203	32.211	159.807
3. ENERGY-CONVERSION	35. FUEL-CELLS-MOLTEN-CA	11.568	3.470	1.851	1.666	6.987	18.556	92.058
	30. STEAM-TURBINE-GENERA	3.015	0.	0.	0.	0.	3.015	14.960
	ISLAND TOTAL	14.584	3.470	1.851	1.666	6.987	21.571	107.018
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.727	0.636	0.573	1.936	1.936	9.604
	80. MASTER-CONTROL	0.465	0.070	0.116	0.105	0.291	0.756	3.748
	81. ELECTRIC-SWITCHGEAR-	0.	0.373	0.373	0.336	1.083	1.083	5.373
	82. INTERCONNECTING-PIPI	0.	0.718	0.718	0.647	2.084	2.084	10.337
	83. STRUCTURES-MISCELLAN	0.	0.661	0.618	0.557	1.837	1.837	9.111
	ISLAND TOTAL	0.465	2.550	2.463	2.217	7.230	7.695	38.174
TOTAL THIS CASE		26.523	13.930	11.662	10.496	36.087	62.610	52.071
INDIRECT COSTS	SPARES						0.530	
	START UP						0.521	
	SPARES+STARTUP						1.052	
	CONTINGENCY						9.549	
	ENGINEERING SERVICES						3.820	
	A-E FEE						3.183	
GRAND TOTAL							80.214	

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PROCESS 28121

ECS GTAC16 PROCESS MEGAWATTS 57.54 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
GT-HRSG-16/2200R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 608. KW FUEL= 178128.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$/ER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.170	0.034	0.204	0.184	0.423	0.593	3.329
	ISLAND TOTAL	0.170	0.034	0.204	0.184	0.423	0.593	3.329
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	9.377	1.063	0.626	0.564	2.254	11.631	65.293
	ISLAND TOTAL	9.377	1.063	0.626	0.564	2.254	11.631	65.293
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.747	0.641	1.178	1.060	2.879	3.626	20.357
	ISLAND TOTAL	0.747	0.641	1.178	1.060	2.879	3.626	20.357
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.216	0.189	0.170	0.575	0.575	3.229
	80. MASTER-CONTROL	0.125	0.019	0.031	0.028	0.078	0.203	1.140
	81. ELECTRIC-SWITCHGEAR-	0.	0.092	0.092	0.083	0.266	0.266	1.496
	82. INTERCONNECTING-PIPI	0.	0.178	0.178	0.160	0.515	0.515	2.891
	83. STRUCTURES-MISCELLAN	0.	0.594	0.553	0.498	1.646	1.646	9.241
	ISLAND TOTAL	0.125	1.099	1.043	0.939	3.081	3.206	17.997
TOTAL THIS CASE		10.420	2.837	3.052	2.747	8.636	19.055	15.421
INDIRECT COSTS	SPARES						0.208	
	START UP						0.163	
	SPARES+STARTUP						0.371	
	CONTINGENCY						2.914	
	ENGINEERING SERVICES						1.166	
	A-E FEE						0.971	
GRAND TOTAL							24.478	

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PROCESS 28121

ECS GTR212 PROCESS MEGAWATTS 65.22 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
GT-6ORE-12/2200D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 674. KW FUEL= 197595.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.181	0.036	0.217	0.195	0.449	0.630	3.187
	ISLAND TOTAL	0.181	0.036	0.217	0.195	0.449	0.630	3.187
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	10.830	1.199	0.709	0.638	2.546	13.376	67.696
	ISLAND TOTAL	10.830	1.199	0.709	0.638	2.546	13.376	67.696
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.749	0.639	1.152	1.037	2.829	3.578	18.106
	ISLAND TOTAL	0.749	0.639	1.152	1.037	2.829	3.578	18.106
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.236	0.206	0.186	0.628	0.628	3.179
	80. MASTER-CONTROL	0.135	0.020	0.034	0.030	0.085	0.220	1.113
	81. ELECTRIC-SWITCHGEAR-	0.	0.103	0.103	0.093	0.299	0.299	1.512
	82. INTERCONNECTING-PIPI	0.	0.199	0.199	0.179	0.576	0.576	2.916
	83. STRUCTURES-MISCELLAN	0.	0.650	0.608	0.547	1.804	1.804	9.132
	ISLAND TOTAL	0.135	1.208	1.149	1.035	3.392	3.528	17.852
TOTAL THIS CASE		11.895	3.083	3.228	2.905	9.216	21.111	14.702
INDIRECT COSTS	SPARES						0.238	
	START UP						0.182	
	SPARES+STARTUP						0.420	
	CONTINGENCY						3.230	
	ENGINEERING SERVICES						1.292	
	A-E FEE						1.077	
GRAND TOTAL							27.129	

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PROCESS 28121

ECS GTRA12 PROCESS MEGAWATTS 78.14 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
GT-85RE-12/2200D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 745. KW FUEL= 218241.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.192	0.038	0.230	0.207	0.475	0.667	3.057
	ISLAND TOTAL	0.192	0.038	0.230	0.207	0.475	0.667	3.057
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	13.502	1.454	0.863	0.777	3.095	16.597	76.048
	ISLAND TOTAL	13.502	1.454	0.863	0.777	3.095	16.597	76.048
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.749	0.639	1.152	1.037	2.829	3.578	16.393
	ISLAND TOTAL	0.749	0.639	1.152	1.037	2.829	3.578	16.393
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.257	0.225	0.202	0.683	0.683	3.132
	80. MASTER-CONTROL	0.152	0.023	0.038	0.034	0.095	0.247	1.131
	81. ELECTRIC-SWITCHGEAR-	0.	0.121	0.121	0.109	0.352	0.352	1.614
	82. INTERCONNECTING-PIPI	0.	0.234	0.234	0.210	0.678	0.678	3.106
	83. STRUCTURES-MISCELLAN	0.	0.708	0.664	0.598	1.971	1.971	9.029
	ISLAND TOTAL	0.152	1.343	1.282	1.154	3.779	3.931	18.012
TOTAL THIS CASE		14.594	3.475	3.528	3.178	10.178	24.772	14.548
INDIRECT COSTS	SPARES						0.292	
	START UP						0.216	
	SPARES+STARTUP						0.508	
	CONTINGENCY						3.792	
	ENGINEERING SERVICES						1.517	
	A-E FEE						1.264	
GRAND TOTAL							31.853	

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PROCESS 28121

ECS GTSOAD PROCESS MEGAWATTS 48.92 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
GT-HRSG-10/2000D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 572. KW FUEL= 167514.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.164	0.033	0.197	0.178	0.408	0.572	3.416
	ISLAND TOTAL	0.164	0.033	0.197	0.178	0.408	0.572	3.416
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	6.149	0.701	0.413	0.371	1.485	7.633	45.565
	ISLAND TOTAL	6.148	0.701	0.413	0.371	1.485	7.633	45.565
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.747	0.641	1.178	1.060	2.879	3.626	21.647
	ISLAND TOTAL	0.747	0.641	1.178	1.060	2.879	3.626	21.647
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.205	0.179	0.161	0.546	0.546	3.259
	80. MASTER-CONTROL	0.113	0.017	0.028	0.025	0.070	0.183	1.094
	81. ELECTRIC-SWITCHGEAR-	0.	0.079	0.079	0.071	0.230	0.230	1.372
	82. INTERCONNECTING-PIPI	0.	0.153	0.153	0.138	0.445	0.445	2.657
	83. STRUCTURES-MISCELLAN	0.	0.564	0.524	0.471	1.559	1.559	9.306
	ISLAND TOTAL	0.113	1.018	0.964	0.868	2.850	2.963	17.688
TOTAL THIS CASE		7.172	2.393	2.752	2.477	7.622	14.794	14.785
INDIRECT COSTS	SPARES						0.143	
	START UP						0.123	
	SPARES+STARTUP						0.267	
	CONTINGENCY						2.259	
	ENGINEERING SERVICES						0.904	
	A-E FEE						0.753	
GRAND TOTAL							18.976	

CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 28121

ECS GTSOAR PROCESS MEGAWATTS 52.11 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 613. KW FUEL= 179662.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.171	0.034	0.205	0.185	0.425	0.596	3.317
	ISLAND TOTAL	0.171	0.034	0.205	0.185	0.425	0.596	3.317
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	8.695	0.956	0.566	0.509	2.032	10.726	59.703
	ISLAND TOTAL	8.695	0.956	0.566	0.509	2.032	10.726	59.703
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.749	0.639	1.152	1.037	2.829	3.578	19.913
	ISLAND TOTAL	0.749	0.639	1.152	1.037	2.829	3.578	19.913
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.218	0.190	0.171	0.579	0.579	3.225
	80. MASTER-CONTROL	0.117	0.018	0.029	0.026	0.073	0.191	1.062
	81. ELECTRIC-SWITCHGEAR-	0.	0.084	0.084	0.076	0.243	0.243	1.355
	82. INTERCONNECTING-PIPI	0.	0.162	0.162	0.146	0.471	0.471	2.622
	83. STRUCTURES-MISCELLAN	0.	0.599	0.558	0.502	1.659	1.659	9.232
	ISLAND TOTAL	0.117	1.080	1.024	0.922	3.026	3.143	17.495
TOTAL THIS CASE		9.732	2.711	2.948	2.653	8.311	18.043	14.766
INDIRECT COSTS	SPARES						0.195	
	START UP						0.154	
	SPARES+STARTUP						0.349	
	CONTINGENCY						2.759	
	ENGINEERING SERVICES						1.103	
	A-E FEE						0.920	
GRAND TOTAL							23.173	

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PROCESS 28121

ECS HEGT85 PROCESS MEGAWATTS 120.00 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
HELIUM-GT-85-REGEN SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1276. KW FUEL= 373777.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.832	0.166	0.541	0.487	1.195	2.027	5.423
	ISLAND TOTAL	0.832	0.166	0.541	0.487	1.195	2.027	5.423
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	31.208	12.642	9.833	8.849	31.324	62.531	167.296
	ISLAND TOTAL	31.208	12.642	9.833	8.849	31.324	62.531	167.296
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	23.851	9.661	7.515	6.763	23.939	47.790	127.857
	ISLAND TOTAL	23.851	9.661	7.515	6.763	23.939	47.790	127.857
5. HEAT-SINK	50. COOLING-TOWERS-WET-I	1.584	0.195	0.710	0.639	1.544	3.127	8.367
	ISLAND TOTAL	1.584	0.195	0.710	0.639	1.544	3.127	8.367
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	1.147	1.239	1.399	1.259	3.897	5.044	13.495
	ISLAND TOTAL	32.355	13.881	11.232	10.108	35.221	67.575	180.791
TOTAL THIS CASE		58.621	23.904	19.997	17.998	61.899	120.520	48.151
INDIRECT COSTS	SPARES						1.172	
	START UP						1.025	
	SPARES+STARTUP						2.198	
	CONTINGENCY						18.408	
	ENGINEERING SERVICES						7.363	
	A-E FEE						6.136	
GRAND TOTAL							154.624	

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PROCESS 28121

ECS IGGTST PROCESS MEGAWATTS 55.79 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
INT-GAS-GTST-12/2100 SITE FUEL= COAL COGEN FUEL BTU*10**6= 641. KW FUEL= 187938.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.438	0.088	0.285	0.256	0.629	1.067	5.676
	ISLAND TOTAL	0.438	0.088	0.285	0.256	0.629	1.067	5.676
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	9.797	6.858	6.368	5.731	18.958	28.755	153.005
	ISLAND TOTAL	9.797	6.858	6.368	5.731	18.958	28.755	153.005
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	6.353	0.617	0.520	0.468	1.604	7.957	42.339
	30. STEAM-TURBINE-GENERA	3.025	0.	0.	0.	0.	3.025	16.095
	ISLAND TOTAL	9.378	0.617	0.520	0.468	1.604	10.982	58.434
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.850	0.726	1.313	1.182	3.221	4.070	21.657
	ISLAND TOTAL	0.850	0.726	1.313	1.182	3.221	4.070	21.657
8. BALANCE-OF-PLANT	64. POWER-PLANT-STRUCTUR	0.	0.274	0.240	0.216	0.730	0.730	3.882
	80. MASTER-CONTROL	0.149	0.022	0.037	0.033	0.093	0.241	1.285
	81. ELECTRIC-SWITCHGEAR-	0.	0.244	0.244	0.219	0.706	0.706	3.759
	82. INTERCONNECTING-PIPI	0.	0.209	0.209	0.188	0.607	0.607	3.230
	83. STRUCTURES-MISCELLAN	0.	0.623	0.581	0.523	1.726	1.726	9.184
	ISLAND TOTAL	0.149	1.372	1.311	1.180	3.862	4.011	21.341
TOTAL THIS CASE		20.611	9.660	9.796	8.817	28.274	48.885	46.914
INDIRECT COSTS	SPARES						0.412	
	START UP						0.401	
	SPARES+STARTUP						0.813	
	CONTINGENCY						7.455	
	ENGINEERING SERVICES						2.982	
	A-E FEE						2.485	

GRAND TOTAL 62.619

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PROCESS 28121

ECS STIG10 PROCESS MEGAWATTS 120.00 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 265.
STIG-10-16/2200F-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 1140. KW FUEL= 334120.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.262	0.052	0.314	0.283	0.649	0.911	2.727
	ISLAND TOTAL	0.262	0.052	0.314	0.283	0.649	0.911	2.727
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	17.143	1.517	0.854	0.769	3.141	20.284	60.710
	ISLAND TOTAL	17.143	1.517	0.854	0.769	3.141	20.284	60.710
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.682	0.587	1.089	0.980	2.657	3.339	9.994
	ISLAND TOTAL	0.682	0.587	1.089	0.980	2.657	3.339	9.994
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	0.165	0.083	0.099	0.089	0.271	0.437	1.307
	ISLAND TOTAL	17.309	1.600	0.954	0.858	3.412	20.721	62.017
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.293	0.606	0.926	0.833	2.365	2.658	7.954
	ISLAND TOTAL	0.293	0.606	0.926	0.833	2.365	2.658	7.954
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.307	0.269	0.242	0.817	0.817	2.445
	80. MASTER-CONTROL	0.161	0.024	0.040	0.036	0.101	0.262	0.785
	81. ELECTRIC-SWITCHGEAR-	0.	0.136	0.136	0.122	0.395	0.395	1.181
	82. INTERCONNECTING-PIPI	0.	0.286	0.286	0.257	0.828	0.828	2.479
	83. STRUCTURES-MISCELLAN	0.	1.127	1.076	0.968	3.171	3.171	9.491
	ISLAND TOTAL	0.161	1.880	1.806	1.626	5.312	5.474	16.382
TOTAL THIS CASE		18.707	4.725	5.089	4.560	14.395	33.102	13.709
INDIRECT COSTS	SPARES						0.374	
	START UP						0.285	
	SPARES+STARTUP						0.659	
	CONTINGENCY						5.064	

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PROCESS 28121

ECS STIG15 PROCESS MEGAWATTS 120.00 PROCESS TEMP. 339. PROCESS HEAT(BTU*10**6) 265.
STIG-15-16/2200F-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 1075. KW FUEL= 314914.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.273	0.055	0.328	0.295	0.677	0.950	3.017
		ISLAND TOTAL	0.273	0.055	0.328	0.295	0.677	0.950	3.017
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	17.143	1.517	0.854	0.769	3.141	20.284	64.412
		ISLAND TOTAL	17.143	1.517	0.854	0.769	3.141	20.284	64.412
4. BOTTOMING-CYCLE	40.	HEAT-RECOVERY-STEAM-	0.805	0.689	1.253	1.128	3.070	3.875	12.306
		ISLAND TOTAL	0.805	0.689	1.253	1.128	3.070	3.875	12.306
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	0.196	0.093	0.117	0.106	0.321	0.517	1.640
		ISLAND TOTAL	17.339	1.615	0.972	0.875	3.462	20.801	66.052
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.475	0.984	1.502	1.352	3.838	4.314	13.698
		ISLAND TOTAL	0.475	0.984	1.502	1.352	3.838	4.314	13.698
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	0.326	0.286	0.257	0.869	0.869	2.759
	80.	MASTER-CONTROL	0.173	0.026	0.043	0.039	0.108	0.282	0.895
	81.	ELECTRIC-SWITCHGEAR-	0.	0.136	0.136	0.122	0.395	0.395	1.253
	82.	INTERCONNECTING-PIPI	0.	0.316	0.316	0.284	0.916	0.916	2.908
	83.	STRUCTURES-MISCELLAN	0.	1.200	1.148	1.033	3.381	3.381	10.738
		ISLAND TOTAL	0.173	2.004	1.929	1.736	5.669	5.843	18.553
TOTAL THIS CASE			19.066	5.347	5.984	5.386	16.717	35.783	17.102
INDIRECT COSTS		SPARES						0.381	
		START UP						0.304	
		SPARES+STARTUP						0.685	
		CONTINGENCY						5.470	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 28212

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 422. PROCESS HEAT(BTU*10**6) 207.
N O C O G E N E R A T I SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.190	0.038	0.123	0.111	0.272	0.462	0.
	3. LIMESTONE/DOLOMITE-U	0.144	0.130	0.116	0.104	0.350	0.494	0.
	ISLAND TOTAL	0.333	0.168	0.239	0.215	0.622	0.956	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.434	2.758	3.021	2.719	8.498	10.932	0.
	ISLAND TOTAL	2.434	2.758	3.021	2.719	8.498	10.932	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.270	0.243	0.219	0.732	0.732	0.
	ISLAND TOTAL	0.	0.270	0.243	0.219	0.732	0.732	0.
TOTAL THIS CASE		2.767	3.195	3.504	3.153	9.852	12.619	0.
INDIRECT COSTS	SPARES						0.055	
	START UP						0.095	
	SPARES+STARTUP						0.150	
	CONTINGENCY						1.915	
	ENGINEERING SERVICES						0.766	
	A-E FEE						0.638	
GRAND TOTAL							16.089	

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PROCESS 28212

ECS STM088 PROCESS MEGAWATTS 7.31 PROCESS TEMP. 422. PROCESS HEAT(BTU*10**6) 207.
STM-TURB-865/825F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 273. KW FUEL= 79961.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.209	0.042	0.136	0.122	0.300	0.510	6.373
	3. LIMESTONE/DOLOMITE-U	0.156	0.136	0.122	0.109	0.367	0.523	6.538
	ISLAND TOTAL	0.365	0.178	0.258	0.232	0.667	1.032	12.911
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	4.524	1.131	1.007	0.906	3.043	7.567	94.632
	ISLAND TOTAL	4.524	1.131	1.007	0.906	3.043	7.567	94.632
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	1.499	0.	0.	0.	0.	1.499	18.747
	ISLAND TOTAL	1.499	0.	0.	0.	0.	1.499	18.747
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.297	0.270	0.243	0.810	0.810	10.126
	ISLAND TOTAL	0.	0.297	0.270	0.243	0.810	0.810	10.126
TOTAL THIS CASE		6.388	1.606	1.534	1.380	4.520	10.908	17.264
INDIRECT COSTS	SPARES						0.128	
	START UP						0.095	
	SPARES+STARTUP						0.223	
	CONTINGENCY						1.670	
	ENGINEERING SERVICES						0.668	
	A-E FEE						0.557	
GRAND TOTAL							14.025	

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PROCESS 28221

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 35.
N O C O G E N E R A T I SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.041	0.008	0.027	0.024	0.059	0.099	0.
	3. LIMESTONE/DOLOMITE-U	0.040	0.061	0.056	0.050	0.167	0.207	0.
	ISLAND TOTAL	0.081	0.069	0.082	0.074	0.225	0.307	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	1.578	0.394	0.454	0.408	1.256	2.834	0.
	ISLAND TOTAL	1.578	0.394	0.454	0.408	1.256	2.834	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.058	0.049	0.044	0.152	0.152	0.
	ISLAND TOTAL	0.	0.058	0.049	0.044	0.152	0.152	0.
TOTAL THIS CASE		1.659	0.522	0.585	0.527	1.633	3.293	0.
INDIRECT COSTS	SPARES						0.033	
	START UP						0.028	
	SPARES+STARTUP						0.061	
	CONTINGENCY						0.503	
	ENGINEERING SERVICES						0.201	
	A-E FEE						0.168	
GRAND TOTAL							4.225	

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PROCESS 28221

ECS DEADV3 PROCESS MEGAWATTS 7.50 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 35.
DIESEL-ADVANCED-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 69. KW FUEL= 20213.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.057	0.011	0.069	0.062	0.142	0.199	9.844
	ISLAND TOTAL	0.057	0.011	0.069	0.062	0.142	0.199	9.844
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	3.315	0.321	0.321	0.289	0.931	4.247	210.106
	ISLAND TOTAL	3.315	0.321	0.321	0.289	0.931	4.247	210.106
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.101	0.209	0.319	0.287	0.815	0.916	45.307
	ISLAND TOTAL	0.101	0.209	0.319	0.287	0.815	0.916	45.307
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.132	0.116	0.104	0.352	0.352	17.429
	80. MASTER-CONTROL	0.123	0.018	0.031	0.028	0.077	0.200	9.873
	81. ELECTRIC-SWITCHGEAR-	0.	0.043	0.043	0.039	0.126	0.126	6.230
	82. INTERCONNECTING-PIPI	0.	0.055	0.055	0.049	0.159	0.159	7.879
	83. STRUCTURES-MISCELLAN	0.	0.117	0.102	0.092	0.311	0.311	15.379
	ISLAND TOTAL	0.123	0.366	0.347	0.312	1.025	1.148	56.790
TOTAL THIS CASE		3.596	0.907	1.056	0.950	2.913	6.509	47.005
INDIRECT COSTS	SPARES						0.072	
	START UP						0.056	
	SPARES+STARTUP						0.128	
	CONTINGENCY						0.996	
	ENGINEERING SERVICES						0.398	
	A-E FEE						0.332	
GRAND TOTAL							8.363	

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PROCESS 28221

ECS DEHTPM PROCESS MEGAWATTS 7.50 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 35.
ADV-DIESEL-HEAT-PUMP SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 76. KW FUEL= 22224.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.052	0.010	0.062	0.056	0.129	0.181	8.147
	ISLAND TOTAL	0.052	0.010	0.062	0.056	0.129	0.181	8.147
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	3.513	0.337	0.337	0.303	0.977	4.490	202.028
	32. DIESEL-ENGINE-GENERA	0.114	0.014	0.012	0.011	0.037	0.151	6.794
	ISLAND TOTAL	3.627	0.351	0.349	0.314	1.014	4.641	208.822
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.027	0.057	0.087	0.078	0.222	0.249	11.202
	ISLAND TOTAL	0.027	0.057	0.087	0.078	0.222	0.249	11.202
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.115	0.101	0.091	0.307	0.307	13.806
	80. MASTER-CONTROL	0.106	0.016	0.026	0.024	0.066	0.172	7.748
	81. ELECTRIC-SWITCHGEAR-	0.	0.043	0.043	0.039	0.126	0.126	5.666
	82. INTERCONNECTING-PIPI	0.	0.045	0.045	0.040	0.129	0.129	5.819
	83. STRUCTURES-MISCELLAN	0.	0.101	0.088	0.079	0.269	0.269	12.111
	ISLAND TOTAL	0.106	0.321	0.304	0.273	0.897	1.003	45.149
TOTAL THIS CASE		3.812	0.738	0.802	0.722	2.262	6.074	32.483
INDIRECT COSTS	SPARES						0.076	
	START UP						0.054	
	SPARES+STARTUP						0.130	
	CONTINGENCY						0.931	
	ENGINEERING SERVICES						0.372	
	A-E FEE						0.310	
GRAND TOTAL							7.817	

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PROCESS 28221

ECS DESGA3 PROCESS MEGAWATTS 7.50 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 35.
DIESEL-SGA-3 SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 71. KW FUEL= 20773.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.059	0.012	0.070	0.063	0.146	0.204	9.832
	ISLAND TOTAL	0.059	0.012	0.070	0.063	0.146	0.204	9.832
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	2.648	0.503	0.503	0.453	1.459	4.106	197.688
	ISLAND TOTAL	2.648	0.503	0.503	0.453	1.459	4.106	197.688
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.107	0.221	0.338	0.304	0.864	0.971	46.728
	ISLAND TOTAL	0.107	0.221	0.338	0.304	0.864	0.971	46.728
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.137	0.120	0.108	0.366	0.366	17.620
	80. MASTER-CONTROL	0.125	0.019	0.031	0.028	0.078	0.203	9.749
	81. ELECTRIC-SWITCHGEAR-	0.	0.043	0.043	0.039	0.126	0.126	6.062
	82. INTERCONNECTING-PIPI	0.	0.056	0.056	0.050	0.163	0.163	7.827
	83. STRUCTURES-MISCELLAN	0.	0.121	0.106	0.096	0.323	0.323	15.573
	ISLAND TOTAL	0.125	0.377	0.357	0.322	1.056	1.181	56.831
TOTAL THIS CASE		2.938	1.113	1.269	1.142	3.524	6.462	54.971
INDIRECT COSTS	SPARES						0.059	
	START UP						0.053	
	SPARES+STARTUP						0.112	
	CONTINGENCY						0.986	
	ENGINEERING SERVICES						0.394	
	A-E FEE						0.329	
GRAND TOTAL							8.283	

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PROCESS 28221

ECS GTAC16 PROCESS MEGAWATTS 7.50 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 35.
GT-HRSG-16/2200R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 79. KW FUEL= 23216.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.052	0.010	0.063	0.057	0.130	0.183	7.862
	ISLAND TOTAL	0.052	0.010	0.063	0.057	0.130	0.183	7.862
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.615	0.247	0.139	0.125	0.511	2.127	91.597
	ISLAND TOTAL	1.615	0.247	0.139	0.125	0.511	2.127	91.597
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.205	0.182	0.389	0.350	0.921	1.126	48.503
	ISLAND TOTAL	0.205	0.182	0.389	0.350	0.921	1.126	48.503
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.010	0.021	0.032	0.028	0.081	0.091	3.905
	ISLAND TOTAL	0.010	0.021	0.032	0.028	0.081	0.091	3.905
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.038	0.034	0.030	0.102	0.102	4.413
	80. MASTER-CONTROL	0.034	0.005	0.009	0.008	0.021	0.056	2.403
	81. ELECTRIC-SWITCHGEAR-	0.	0.014	0.014	0.013	0.042	0.042	1.790
	82. INTERCONNECTING-PIPI	0.	0.029	0.029	0.026	0.083	0.083	3.582
	83. STRUCTURES-MISCELLAN	0.	0.103	0.089	0.080	0.273	0.273	11.738
	ISLAND TOTAL	0.034	0.189	0.175	0.157	0.521	0.555	23.926
TOTAL THIS CASE		1.917	0.649	0.797	0.717	2.164	4.081	30.902
INDIRECT COSTS	SPARES						0.038	
	START UP						0.034	
	SPARES+STARTUP						0.072	
	CONTINGENCY						0.623	
	ENGINEERING SERVICES						0.249	
	A-E FEE						0.208	
GRAND TOTAL							5.233	

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PROCESS 28221

ECS GTSOAR PROCESS MEGAWATTS 6.88 PROCESS TEMP. 338. PROCESS HEAT(BTU*10**6) 35.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 81. KW FUEL= 23729.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.053	0.011	0.063	0.057	0.131	0.184	7.760
	ISLAND TOTAL	0.053	0.011	0.063	0.057	0.131	0.184	7.760
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.684	0.249	0.141	0.127	0.517	2.201	92.769
	ISLAND TOTAL	1.684	0.249	0.141	0.127	0.517	2.201	92.769
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.231	0.204	0.429	0.386	1.019	1.250	52.685
	ISLAND TOTAL	0.231	0.204	0.429	0.386	1.019	1.250	52.685
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.039	0.034	0.031	0.104	0.104	4.373
	80. MASTER-CONTROL	0.032	0.005	0.008	0.007	0.020	0.053	2.216
	81. ELECTRIC-SWITCHGEAR-	0.	0.013	0.013	0.012	0.038	0.038	1.619
	82. INTERCONNECTING-PIPI	0.	0.026	0.026	0.024	0.077	0.077	3.224
	83. STRUCTURES-MISCELLAN	0.	0.104	0.091	0.082	0.276	0.276	11.638
	ISLAND TOTAL	0.032	0.188	0.172	0.155	0.515	0.547	23.070
TOTAL THIS CASE		2.001	0.652	0.806	0.725	2.182	4.183	30.562
INDIRECT COSTS	SPARES						0.040	
	START UP						0.035	
	SPARES+STARTUP						0.075	
	CONTINGENCY						0.639	
	ENGINEERING SERVICES						0.255	
	A-E FEE						0.213	
GRAND TOTAL							5.365	

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PROCESS 28242

ECS ONOCGN N O C O G E N E R A T I PROCESS MEGAWATTS 0. SITE FUEL= RESIDUAL PROCESS. TEMP. 274. COGEN FUEL BTU*10**6= 0. PROCESS HEAT(BTU*10**6) 23. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.028	0.006	0.034	0.030	0.069	0.097	0.
	ISLAND TOTAL	0.028	0.006	0.034	0.030	0.069	0.097	0.
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.110	0.227	0.347	0.312	0.887	0.996	0.
	ISLAND TOTAL	0.110	0.227	0.347	0.312	0.887	0.996	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.040	0.034	0.030	0.105	0.105	0.
	ISLAND TOTAL	0.	0.040	0.034	0.030	0.105	0.105	0.
TOTAL THIS CASE		0.138	0.273	0.414	0.373	1.061	1.199	0.

INDIRECT COSTS	SPARES	0.003
	START UP	0.008
	SPARES+STARTUP	0.011
	CONTINGENCY	0.161
	ENGINEERING SERVICES	0.073
	A-E FEE	0.060
GRAND TOTAL		1.524

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PROCESS 28242

ECS CC1222 PROCESS MEGAWATTS 8.21 PROCESS TEMP. 274. PROCESS HEAT(BTU*10**6) 23.
GTST-12/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 71. KW FUEL= 20861.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.049	0.010	0.059	0.053	0.122	0.171	8.191
	ISLAND TOTAL	0.049	0.010	0.059	0.053	0.122	0.171	8.191
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.269	0.199	0.112	0.100	0.411	1.680	80.519
	30. STEAM-TURBINE-GENERA	0.653	0.	0.	0.	0.	0.653	31.293
	ISLAND TOTAL	1.922	0.199	0.112	0.100	0.411	2.333	111.812
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.181	0.162	0.355	0.320	0.836	1.017	48.761
	ISLAND TOTAL	0.181	0.162	0.355	0.320	0.836	1.017	48.761
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.026	0.023	0.021	0.070	0.070	3.378
	80. MASTER-CONTROL	0.027	0.004	0.007	0.006	0.017	0.045	2.136
	81. ELECTRIC-SWITCHGEAR-	0.	0.012	0.012	0.011	0.034	0.034	1.638
	82. INTERCONNECTING-PIPI	0.	0.023	0.023	0.021	0.068	0.068	3.254
	83. STRUCTURES-MISCELLAN	0.	0.093	0.081	0.073	0.246	0.246	11.811
	ISLAND TOTAL	0.027	0.159	0.146	0.131	0.436	0.463	22.216
TOTAL THIS CASE		2.179	0.529	0.672	0.604	1.805	3.984	28.977
INDIRECT COSTS	SPARES						0.044	
	START UP						0.034	
	SPARES+STARTUP						0.077	
	CONTINGENCY						0.609	
	ENGINEERING SERVICES						0.244	
	A-E FEE						0.203	
GRAND TOTAL							5.117	

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PROCESS 28242

ECS DEADV3 PROCESS MEGAWATTS 10.25 PROCESS TEMP. 274. PROCESS HEAT(BTU*10**6) 23.
DIESEL-ADVANCED-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 94. KW FUEL= 27634.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.058	0.012	0.069	0.062	0.143	0.201	7.279
	ISLAND TOTAL	0.058	0.012	0.069	0.062	0.143	0.201	7.279
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	4.012	0.376	0.376	0.338	1.090	5.103	184.646
	ISLAND TOTAL	4.012	0.376	0.376	0.338	1.090	5.103	184.646
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.134	0.118	0.106	0.358	0.358	12.952
	80. MASTER-CONTROL	0.126	0.019	0.032	0.028	0.079	0.205	7.431
	81. ELECTRIC-SWITCHGEAR-	0.	0.058	0.058	0.052	0.167	0.167	6.061
	82. INTERCONNECTING-PIPI	0.	0.057	0.057	0.051	0.166	0.166	6.000
	83. STRUCTURES-MISCELLAN	0.	0.119	0.104	0.093	0.316	0.316	11.436
	ISLAND TOTAL	0.126	0.387	0.368	0.331	1.086	1.213	43.880
TOTAL THIS CASE		4.196	0.775	0.813	0.732	2.320	6.516	26.489
INDIRECT COSTS	SPARES						0.084	
	START UP						0.058	
	SPARES+STARTUP						0.142	
	CONTINGENCY						0.999	
	ENGINEERING SERVICES						0.399	
	A-E FEE						0.333	
GRAND TOTAL							8.369	

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PROCESS 28242

ECS DEHTPM PROCESS MEGAWATTS 5.54 PROCESS TEMP. 274. PROCESS HEAT(BTU*10**6) 23.
ADV-DIESEL-HEAT-PUMP SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 53. KW FUEL= 15453.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.041	0.008	0.050	0.045	0.102	0.144	9.290
	ISLAND TOTAL	0.041	0.008	0.050	0.045	0.102	0.144	9.290
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	2.815	0.281	0.281	0.252	0.814	3.628	234.782
	32. DIESEL-ENGINE-GENERA	0.045	0.005	0.005	0.004	0.015	0.060	3.854
	ISLAND TOTAL	2.859	0.286	0.285	0.257	0.828	3.688	238.636
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.082	0.072	0.065	0.218	0.218	14.137
	80. MASTER-CONTROL	0.085	0.013	0.021	0.019	0.053	0.139	8.977
	81. ELECTRIC-SWITCHGEAR-	0.	0.033	0.033	0.030	0.095	0.095	6.179
	82. INTERCONNECTING-PIPI	0.	0.033	0.033	0.030	0.095	0.095	6.170
	83. STRUCTURES-MISCELLAN	0.	0.072	0.062	0.055	0.189	0.189	12.225
	ISLAND TOTAL	0.085	0.232	0.221	0.199	0.652	0.737	47.687
TOTAL THIS CASE		2.986	0.527	0.556	0.500	1.582	4.568	32.356
INDIRECT COSTS	SPARES						0.060	
	START UP						0.041	
	SPARES+STARTUP						0.100	
	CONTINGENCY						0.700	
	ENGINEERING SERVICES						0.280	
	A-E FEE						0.233	
GRAND TOTAL							5.882	

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PROCESS 28242

ECS DESGA3 PROCESS MEGAWATTS 11.00 PROCESS TEMP. 274. PROCESS HEAT(BTU*10**6) 23.
DIESEL-SGA-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 104. KW FUEL= 30466.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.062	0.012	0.074	0.067	0.153	0.214	7.040
	ISLAND TOTAL	0.062	0.012	0.074	0.067	0.153	0.214	7.040
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	3.883	0.738	0.738	0.664	2.140	6.023	197.691
	ISLAND TOTAL	3.883	0.738	0.738	0.664	2.140	6.023	197.691
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.018	0.037	0.056	0.050	0.143	0.161	5.287
	ISLAND TOTAL	0.018	0.037	0.056	0.050	0.143	0.161	5.287
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.148	0.129	0.116	0.393	0.393	12.908
	80. MASTER-CONTROL	0.133	0.020	0.033	0.030	0.083	0.216	7.103
	81. ELECTRIC-SWITCHGEAR-	0.	0.062	0.062	0.055	0.179	0.179	5.861
	82. INTERCONNECTING-PIPI	0.	0.062	0.062	0.055	0.179	0.179	5.861
	83. STRUCTURES-MISCELLAN	0.	0.131	0.115	0.103	0.349	0.349	11.442
	ISLAND TOTAL	0.133	0.421	0.400	0.360	1.182	1.315	43.175
TOTAL THIS CASE		4.096	1.208	1.268	1.141	3.618	7.714	37.468
INDIRECT COSTS	SPARES						0.082	
	START UP						0.066	
	SPARES+STARTUP						0.148	
	CONTINGENCY						1.179	
	ENGINEERING SERVICES						0.472	
	A-E FEE						0.393	
GRAND TOTAL							9.906	

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PROCESS 28653

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 489. PROCESS HEAT(BTU*10**6) 300.
NO COGENERATI SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.261	0.052	0.170	0.153	0.375	0.637	0.
	3. LIMESTONE/DOLOMITE-U	0.187	0.152	0.135	0.122	0.409	0.596	0.
	ISLAND TOTAL	0.449	0.204	0.305	0.275	0.784	1.232	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.064	3.523	3.823	3.441	10.787	13.851	0.
	ISLAND TOTAL	3.064	3.523	3.823	3.441	10.787	13.851	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.372	0.340	0.306	1.017	1.017	0.
	ISLAND TOTAL	0.	0.372	0.340	0.306	1.017	1.017	0.
TOTAL THIS CASE		3.512	4.098	4.466	4.022	12.588	16.100	0.
INDIRECT COSTS	SPARES						0.070	
	START UP						0.121	
	SPARES+STARTUP						0.191	
	CONTINGENCY						2.444	
	ENGINEERING SERVICES						0.977	
	A-E FEE						0.815	
GRAND TOTAL							20.527	

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PROCESS 28653

ECS STM141 PROCESS MEGAWATTS 13.35 PROCESS TEMP. 489. PROCESS HEAT(BTU*10**6) 300.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 407. KW FUEL= 119131.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.295	0.059	0.192	0.173	0.424	0.719	6.038
	3. LIMESTONE/DOLOMITE-U	0.207	0.161	0.143	0.129	0.433	0.641	5.377
	ISLAND TOTAL	0.503	0.220	0.335	0.302	0.857	1.360	11.414
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	5.566	1.392	1.174	1.056	3.621	9.188	77.123
	ISLAND TOTAL	5.566	1.392	1.174	1.056	3.621	9.188	77.123
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	2.459	0.	0.	0.	0.	2.459	20.637
	ISLAND TOTAL	2.459	0.	0.	0.	0.	2.459	20.637
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.420	0.386	0.347	1.153	1.153	9.675
	ISLAND TOTAL	0.	0.420	0.386	0.347	1.153	1.153	9.675
TOTAL THIS CASE		8.527	2.031	1.895	1.705	5.631	14.159	14.313
INDIRECT COSTS	SPARES						0.171	
	START UP						0.125	
	SPARES+STARTUP						0.295	
	CONTINGENCY						2.168	
	ENGINEERING SERVICES						0.867	
	A-E FEE						0.723	
GRAND TOTAL							18.212	

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PROCESS 28653

ECS STM141 PROCESS MEGAWATTS 13.35 PROCESS TEMP. 469. PROCESS HEAT(BTU*10**6) 300.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 407. KW FUEL= 119131.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.295	0.059	0.192	0.173	0.424	0.719	6.038
	3. LIMESTONE/DOLOMITE-U	0.207	0.161	0.143	0.129	0.433	0.641	5.377
	ISLAND TOTAL	0.503	0.220	0.335	0.302	0.857	1.360	11.414
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	3.584	3.572	4.050	3.645	11.267	14.851	124.662
	ISLAND TOTAL	3.584	3.572	4.050	3.645	11.267	14.851	124.662
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	2.459	0.	0.	0.	0.	2.459	20.637
	ISLAND TOTAL	2.459	0.	0.	0.	0.	2.459	20.637
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.420	0.386	0.347	1.153	1.153	9.675
	ISLAND TOTAL	0.	0.420	0.386	0.347	1.153	1.153	9.675
TOTAL THIS CASE		6.545	4.212	4.771	4.294	13.277	19.822	36.044
INDIRECT COSTS	SPARES						0.131	
	START UP						0.155	
	SPARES+STARTUP						0.286	
	CONTINGENCY						3.016	
	ENGINEERING SERVICES						1.206	
	A-E FEE						1.005	
GRAND TOTAL							25.336	

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PROCESS 28951

ECS ONOCGN — PROCESS MEGAWATTS 0. — PROCESS TEMP. 298. — PROCESS HEAT(BTU*10**6) 20.
N O C O G E N E R A T I — SITE FUEL= RESIDUAL — COGEN FUEL BTU*10**6= 0. — KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.026	0.005	0.031	0.028	0.064	0.090	0.
	ISLAND TOTAL	0.026	0.005	0.031	0.028	0.064	0.090	0.
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.101	0.209	0.318	0.287	0.814	0.915	0.
	ISLAND TOTAL	0.101	0.209	0.318	0.287	0.814	0.915	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.036	0.030	0.027	0.092	0.092	0.
	ISLAND TOTAL	0.	0.036	0.030	0.027	0.092	0.092	0.
TOTAL THIS CASE		0.127	0.250	0.379	0.341	0.970	1.097	0.
INDIRECT COSTS	SPARES						0.003	
	START UP						0.008	
	SPARES+STARTUP						0.010	
	CONTINGENCY						0.166	
	ENGINEERING SERVICES						0.066	
	A-E FEE						0.055	
GRAND TOTAL							1.395	

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PROCESS 28951

ECS DEHTPM PROCESS MEGAWATTS 4.00 PROCESS TEMP. 298. PROCESS HEAT(BTU*10**6) 20.
ADV-DIESEL-HEAT-PUMP SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 39. KW FUEL= 11397.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.036	0.007	0.044	0.039	0.090	0.127	11.129
	ISLAND TOTAL	0.036	0.007	0.044	0.039	0.090	0.127	11.129
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	2.337	0.241	0.241	0.217	0.698	3.035	266.338
	32. DIESEL-ENGINE-GENERA	0.050	0.006	0.005	0.005	0.016	0.066	5.805
	ISLAND TOTAL	2.387	0.247	0.246	0.222	0.714	3.102	272.142
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.032	0.067	0.102	0.092	0.262	0.294	25.823
	ISLAND TOTAL	0.032	0.067	0.102	0.092	0.262	0.294	25.823
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.068	0.060	0.054	0.182	0.182	15.988
	80. MASTER-CONTROL	0.073	0.011	0.018	0.017	0.046	0.119	10.457
	81. ELECTRIC-SWITCHGEAR-	0.	0.024	0.024	0.022	0.071	0.071	6.228
	82. INTERCONNECTING-PIPI	0.	0.027	0.027	0.024	0.077	0.077	6.753
	83. STRUCTURES-MISCELLAN	0.	0.060	0.051	0.046	0.156	0.156	13.721
	ISLAND TOTAL	0.073	0.190	0.180	0.162	0.532	0.606	53.147
TOTAL THIS CASE		2.529	0.511	0.572	0.515	1.599	4.128	45.207
INDIRECT COSTS	SPARES						0.051	
	START UP						0.036	
	SPARES+STARTUP						0.087	
	CONTINGENCY						0.632	
	ENGINEERING SERVICES						0.253	
	A-E FEE						0.211	
GRAND TOTAL							5.311	

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PROCESS 28951

ECS GTSOAR PROCESS MEGAWATTS 3.84 PROCESS TEMP. 298. PROCESS HEAT(BTU*10**6) 20.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 45. KW FUEL= 13226.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.038	0.008	0.045	0.041	0.093	0.131	9.918
	ISLAND TOTAL	0.038	0.008	0.045	0.041	0.093	0.131	9.918
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.048	0.169	0.095	0.085	0.348	1.397	105.614
	ISLAND TOTAL	1.048	0.169	0.095	0.085	0.348	1.397	105.614
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.167	0.149	0.326	0.294	0.769	0.936	70.764
	ISLAND TOTAL	0.167	0.149	0.326	0.294	0.769	0.936	70.764
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.024	0.021	0.019	0.063	0.063	4.776
	80. MASTER-CONTROL	0.022	0.003	0.006	0.005	0.014	0.036	2.740
	81. ELECTRIC-SWITCHGEAR-	0.	0.008	0.008	0.007	0.023	0.023	1.705
	82. INTERCONNECTING-PIPI	0.	0.016	0.016	0.014	0.045	0.045	3.422
	83. STRUCTURES-MISCELLAN	0.	0.063	0.054	0.048	0.165	0.165	12.445
	ISLAND TOTAL	0.022	0.113	0.103	0.093	0.310	0.332	25.088
TOTAL THIS CASE		1.275	0.439	0.569	0.512	1.520	2.796	38.737
INDIRECT COSTS	SPARES						0.026	
	START UP						0.023	
	SPARES+STARTUP						0.048	
	CONTINGENCY						0.427	
	ENGINEERING SERVICES						0.171	
	A-E FEE						0.142	
GRAND TOTAL							3.584	

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PROCESS 28951

ECS STIRL PROCESS MEGAWATTS 3.39 PROCESS TEMP. 298. PROCESS HEAT(BTU*10**6) 20.
STIRLING-1472F SITE FUEL= COAL COGEN FUEL BTU*10**6= 43. KW FUEL= 12690.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.043	0.009	0.028	0.025	0.061	0.104	8.181
	ISLAND TOTAL	0.043	0.009	0.028	0.025	0.061	0.104	8.181
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	1.275	0.136	0.233	0.210	0.579	1.854	146.064
	29. STIRLING-ENGINE-COMB	0.983	0.118	0.118	0.106	0.342	1.325	104.377
	ISLAND TOTAL	2.257	0.254	0.351	0.316	0.921	3.178	250.441
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.069	0.061	0.055	0.185	0.185	14.562
	80. MASTER-CONTROL	0.062	0.009	0.016	0.014	0.039	0.102	7.999
	81. ELECTRIC-SWITCHGEAR-	0.	0.021	0.021	0.019	0.061	0.061	4.810
	82. INTERCONNECTING-PIPI	0.	0.021	0.021	0.019	0.061	0.061	4.836
	83. STRUCTURES-MISCELLAN	0.	0.061	0.052	0.046	0.159	0.159	12.504
	ISLAND TOTAL	0.062	0.182	0.170	0.153	0.505	0.567	44.712
TOTAL THIS CASE		2.362	0.444	0.549	0.494	1.487	3.849	38.926
INDIRECT COSTS	SPARES						0.047	
	START UP						0.034	
	SPARES+STARTUP						0.081	
	CONTINGENCY						0.590	
	ENGINEERING SERVICES						0.236	
	A-E FEE						0.197	
GRAND TOTAL							4.952	

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PROCESS 28951

ECS STIRL PROCESS MEGAWATTS 3.39 PROCESS TEMP. 298. PROCESS HEAT(BTU*10**6) 20.
STIRLING-1472F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 43. KW FUEL= 12690.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.037	0.007	0.044	0.040	0.091	0.128	10.091
	ISLAND TOTAL	0.037	0.007	0.044	0.040	0.091	0.128	10.091
2. FUEL-UTILIZATION-CLE	29. STIRLING-ENGINE-COMB	0.051	0.006	0.006	0.005	0.018	0.069	5.405
	29. STIRLING-ENGINE-COMB	0.983	0.118	0.118	0.106	0.342	1.325	104.377
	ISLAND TOTAL	1.033	0.124	0.124	0.112	0.360	1.393	109.782
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.069	0.061	0.055	0.185	0.185	14.562
	80. MASTER-CONTROL	0.062	0.009	0.016	0.014	0.039	0.102	7.999
	81. ELECTRIC-SWITCHGEAR-	0.	0.021	0.021	0.019	0.061	0.061	4.810
	82. INTERCONNECTING-PIPI	0.	0.021	0.021	0.019	0.061	0.061	4.836
	83. STRUCTURES-MISCELLAN	0.	0.061	0.052	0.046	0.159	0.159	12.504
	ISLAND TOTAL	0.062	0.182	0.170	0.153	0.505	0.567	44.712
TOTAL THIS CASE		1.133	0.313	0.338	0.305	0.956	2.089	23.998
INDIRECT COSTS	SPARES						0.023	
	START UP						0.018	
	SPARES+STARTUP						0.040	
	CONTINGENCY						0.319	
	ENGINEERING SERVICES						0.128	
	A-E FEE						0.106	
GRAND TOTAL							2.683	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

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PROCESS 29112

ECS ONOCGN — PROCESS MEGAWATTS 0. — PROCESS TEMP. 470. — PROCESS HEAT(BTU*10**6) 1333.
NO COGENERATI — SITE FUEL= COAL-FGD — COGEN FUEL BTU*10**6= 0. — KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.949	0.190	0.617	0.555	1.361	2.310	0.
	3. LIMESTONE/DOLOMITE-U	0.544	0.285	0.250	0.225	0.761	1.305	0.
	ISLAND TOTAL	1.493	0.475	0.867	0.780	2.122	3.615	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	11.727	13.694	14.719	13.247	41.659	53.386	0.
	ISLAND TOTAL	11.727	13.694	14.719	13.247	41.659	53.386	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.349	1.296	1.167	3.812	3.812	0.
	ISLAND TOTAL	0.	1.349	1.296	1.167	3.812	3.812	0.
TOTAL THIS CASE		13.220	15.517	16.882	15.194	47.593	60.813	0.
INDIRECT COSTS	SPARES						0.264	
	START UP						0.456	
	SPARES+STARTUP						0.721	
	CONTINGENCY						9.230	
	ENGINEERING SERVICES						3.692	
	A-E FEE						3.077	
GRAND TOTAL							77.532	

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PROCESS 29112

ECS GTSOAR PROCESS MEGAWATTS 52.00 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 1333.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 612. KW FUEL= 179284.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.330	0.066	0.396	0.356	0.818	1.148	6.406
	ISLAND TOTAL	0.330	0.066	0.396	0.356	0.818	1.148	6.406
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	8.680	0.955	0.565	0.509	2.029	10.709	59.730
	ISLAND TOTAL	8.680	0.955	0.565	0.509	2.029	10.709	59.730
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.711	0.608	1.096	0.987	2.691	3.402	18.977
	ISLAND TOTAL	0.711	0.608	1.096	0.987	2.691	3.402	18.977
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	3.967	4.205	7.418	6.676	18.298	22.265	124.186
	ISLAND TOTAL	3.967	4.205	7.418	6.676	18.298	22.265	124.186
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.569	0.498	0.448	1.514	1.514	8.446
	80. MASTER-CONTROL	0.256	0.038	0.064	0.058	0.160	0.417	2.323
	81. ELECTRIC-SWITCHGEAR-	0.	0.084	0.084	0.075	0.243	0.243	1.355
	82. INTERCONNECTING-PIPI	0.	0.489	0.489	0.440	1.418	1.418	7.910
	83. STRUCTURES-MISCELLAN	0.	1.592	1.540	1.386	4.518	4.518	25.198
	ISLAND TOTAL	0.256	2.772	2.674	2.407	7.853	8.109	45.232
TOTAL THIS CASE		13.944	8.605	12.149	10.935	31.689	45.633	60.990
INDIRECT COSTS	SPARES						0.279	
	START UP						0.347	
	SPARES+STARTUP						0.626	
	CONTINGENCY						6.939	
	ENGINEERING SERVICES						2.776	
	A-E FEE						2.313	
GRAND TOTAL							58.287	

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PROCESS 29112

ECS PFBSTM PROCESS MEGAWATTS 109.32 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 1333.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 2030. KW FUEL= 594757.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.186	0.237	0.771	0.694	1.701	2.887	4.854
	3. LIMESTONE/DOLOMITE-U	0.797	0.474	0.419	0.377	1.269	2.066	3.474
	ISLAND TOTAL	1.982	0.711	1.189	1.070	2.971	4.953	8.328
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	27.122	5.153	3.797	3.417	12.368	39.490	66.397
	ISLAND TOTAL	27.122	5.153	3.797	3.417	12.368	39.490	66.397
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	9.420	2.354	1.601	1.441	5.396	14.817	24.912
	ISLAND TOTAL	9.420	2.354	1.601	1.441	5.396	14.817	24.912
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	6.505	0.	0.	0.	0.	6.505	10.937
	ISLAND TOTAL	6.505	0.	0.	0.	0.	6.505	10.937
TOTAL THIS CASE		45.030	8.218	6.587	5.929	20.735	65.765	9.968
INDIRECT COSTS	SPARES						0.901	
	START UP						0.598	
	SPARES+STARTUP						1.499	
	CONTINGENCY						10.090	
	ENGINEERING SERVICES						4.036	
	A-E FEE						3.363	
GRAND TOTAL							84.752	

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PROCESS 29112

ECS STM141 PROCESS MEGAWATTS 60.38 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 1333.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1811. KW FUEL= 530585.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.074	0.215	0.698	0.628	1.542	2.616	4.930
	3. LIMESTONE/DOLOMITE-U	0.603	0.303	0.266	0.239	0.808	1.410	2.658
	ISLAND TOTAL	1.677	0.518	0.964	0.868	2.349	4.026	7.588
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	23.720	5.930	4.928	4.436	15.294	39.014	73.530
	ISLAND TOTAL	23.720	5.930	4.928	4.436	15.294	39.014	73.530
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	6.753	0.	0.	0.	0.	6.753	12.728
	ISLAND TOTAL	6.753	0.	0.	0.	0.	6.753	12.728
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.527	1.475	1.327	4.329	4.329	8.160
	ISLAND TOTAL	0.	1.527	1.475	1.327	4.329	4.329	8.160
TOTAL THIS CASE		32.150	7.975	7.367	6.631	21.973	54.123	12.497
INDIRECT COSTS	SPARES						0.643	
	START UP						0.475	
	SPARES+STARTUP						1.118	
	CONTINGENCY						8.286	
	ENGINEERING SERVICES						3.314	
	A-E FEE						2.762	
GRAND TOTAL							69.603	

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PROCESS 29112

ECS STM141 PROCESS MEGAWATTS 52.00 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 1333.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 1559. KW FUEL= 456920.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.057	0.211	0.687	0.618	1.517	2.574	5.633
	3. LIMESTONE/DOLOMITE-U	0.595	0.300	0.264	0.237	0.801	1.396	3.056
	ISLAND TOTAL	1.652	0.512	0.951	0.856	2.318	3.970	8.688
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	11.125	11.230	12.571	11.314	35.114	46.239	101.197
	ISLAND TOTAL	11.125	11.230	12.571	11.314	35.114	46.239	101.197
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	6.110	0.	0.	0.	0.	6.110	13.373
	ISLAND TOTAL	6.110	0.	0.	0.	0.	6.110	13.373
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	2.271	2.561	2.814	2.532	7.908	10.178	22.275
	ISLAND TOTAL	13.395	13.792	15.384	13.846	43.022	56.417	123.472
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.503	1.450	1.305	4.258	4.258	9.319
	ISLAND TOTAL	0.	1.503	1.450	1.305	4.258	4.258	9.319
TOTAL THIS CASE		21.157	15.806	17.786	16.007	49.598	70.755	35.032
INDIRECT COSTS	SPARES						0.423	
	START UP						0.547	
	SPARES+STARTUP						0.971	
	CONTINGENCY						10.759	
	ENGINEERING SERVICES						4.304	
	A-E FEE						3.586	
GRAND TOTAL							90.374	

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PROCESS 29112

ECS TIHRSG PROCESS MEGAWATTS 52.00 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 1333.
THERMIONIC-HRSG SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 1261. KW FUEL= 369527.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.333	0.067	0.400	0.360	0.826	1.159	3.137
	ISLAND TOTAL	0.333	0.067	0.400	0.360	0.826	1.159	3.137
3. ENERGY-CONVERSION	33. THERMIONIC-BOILER/GE	31.114	29.011	28.091	25.282	82.384	113.498	307.144
	ISLAND TOTAL	31.114	29.011	28.091	25.282	82.384	113.498	307.144
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	2.023	2.145	3.783	3.405	9.333	11.356	30.731
	ISLAND TOTAL	2.023	2.145	3.783	3.405	9.333	11.356	30.731
TOTAL THIS CASE		33.471	31.222	32.274	29.047	92.542	126.013	78.605
INDIRECT COSTS	SPARES						0.669	
	START UP						0.970	
	SPARES+STARTUP						1.639	
	CONTINGENCY						19.148	
	ENGINEERING SERVICES						7.659	
	A-E FEE						6.383	
GRAND TOTAL							160.842	

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PROCESS 29113

ECS ONOCGN NO COGENERATI — PROCESS MEGAWATTS 0. — SITE FUEL= COAL-FGD — PROCESS TEMP. 470. — COGEN FUEL BTU*10**6= 0. — PROCESS HEAT(BTU*10**6) 3042. — KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		**********	COSTS - MILLIONS 1978$	**********				
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.936	0.387	1.258	1.132	2.778	4.714	0.
	3. LIMESTONE/DOLOMITE-U	1.195	0.602	0.529	0.476	1.608	2.803	0.
	ISLAND TOTAL	3.131	0.990	1.787	1.609	4.386	7.517	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	25.454	29.878	32.009	28.809	90.696	116.150	0.
	ISLAND TOTAL	25.454	29.878	32.009	28.809	90.696	116.150	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	2.752	2.719	2.447	7.919	7.919	0.
	ISLAND TOTAL	0.	2.752	2.719	2.447	7.919	7.919	0.
TOTAL THIS CASE		28.585	33.619	36.516	32.865	103.000	131.585	0.
INDIRECT COSTS	SPARES						0.572	
	START UP						0.987	
	SPARES+STARTUP						1.559	
	CONTINGENCY						19.972	
	ENGINEERING SERVICES						7.989	
	A-E FEE						6.657	
GRAND TOTAL							167.762	

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PROCESS 29113

ECS FCSTCL PROCESS MEGAWATTS 808.53 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 3042.
FUEL-CL-STMTB-COAL SITE FUEL= COAL COGEN FUEL BTU*10**6= 7445. KW FUEL= 2181799.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	3.646	0.729	2.370	2.133	5.233	8.879	4.070
	ISLAND TOTAL	3.646	0.729	2.370	2.133	5.233	8.879	4.070
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	49.952	35.466	31.969	28.772	96.207	146.159	66.990
	ISLAND TOTAL	49.952	35.466	31.969	28.772	96.207	146.159	66.990
3. ENERGY-CONVERSION	35. FUEL-CELLS-MOLTEN-CA	81.930	24.579	13.109	11.798	49.485	131.415	60.232
	30. STEAM-TURBINE-GENERA	15.278	0.	0.	0.	0.	15.278	7.002
	ISLAND TOTAL	97.207	24.579	13.109	11.798	49.485	146.693	67.235
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	3.052	2.670	2.403	8.126	8.126	3.724
	80. MASTER-CONTROL	2.620	0.393	0.655	0.590	1.638	4.258	1.952
	81. ELECTRIC-SWITCHGEAR-	0.	1.648	1.648	1.483	4.778	4.778	2.190
	82. INTERCONNECTING-PIPI	0.	3.098	3.098	2.789	8.986	8.986	4.118
	83. STRUCTURES-MISCELLAN	0.	2.848	2.817	2.536	8.200	8.200	3.759
	ISLAND TOTAL	2.620	11.039	10.889	9.800	31.728	34.348	15.743
TOTAL THIS CASE		153.426	71.812	58.337	52.503	182.653	336.078	24.064
INDIRECT COSTS	SPARES						3.069	
	START UP						2.835	
	SPARES+STARTUP						5.904	
	CONTINGENCY						51.297	
	ENGINEERING SERVICES						20.519	
	A-E FEE						17.099	
GRAND TOTAL							430.898	

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PROCESS 29113

ECS PFBSTM PROCESS MEGAWATTS 126.00 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 3042.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 2277. KW FUEL= 667146.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	2.181	0.436	1.418	1.276	3.130	5.311	7.961
	3. LIMESTONE/DOLOMITE-U	1.481	0.807	0.711	0.640	2.157	3.638	5.453
	ISLAND TOTAL	3.662	1.243	2.128	1.916	5.287	8.950	13.415
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	30.419	5.780	4.259	3.833	13.871	44.290	66.388
	ISLAND TOTAL	30.419	5.780	4.259	3.833	13.871	44.290	66.388
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	10.548	2.608	1.784	1.605	5.997	16.545	24.800
	ISLAND TOTAL	10.548	2.608	1.784	1.605	5.997	16.545	24.800
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	7.270	0.	0.	0.	0.	7.270	10.896
	ISLAND TOTAL	7.270	0.	0.	0.	0.	7.270	10.898
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	12.915	15.173	16.246	14.622	46.041	58.956	88.371
	ISLAND TOTAL	43.334	20.953	20.505	18.455	59.913	103.247	154.759
TOTAL THIS CASE		64.814	24.804	24.417	21.976	71.197	136.012	32.940
INDIRECT COSTS	SPARES						1.296	
	START UP						1.140	
	SPARES+STARTUP						2.437	
	CONTINGENCY						20.767	
	ENGINEERING SERVICES						8.307	
	A-E FEE						6.922	
GRAND TOTAL							174.445	

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PROCESS 29113

ECS STM141 PROCESS MEGAWATTS 126.00 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 3042.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 3596. KW FUEL= 1053721.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	2.170	0.434	1.411	1.270	3.114	5.284	5.015
	3.	LIMESTONE/DOLOMITE-U	1.475	0.805	0.709	0.638	2.152	3.627	3.442
		ISLAND TOTAL	3.645	1.239	2.119	1.908	5.266	8.911	8.457
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	26.337	26.545	29.760	26.784	83.089	109.426	103.847
		ISLAND TOTAL	26.337	26.545	29.760	26.784	83.089	109.426	103.847
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	13.896	0.	0.	0.	0.	13.896	13.187
		ISLAND TOTAL	13.896	0.	0.	0.	0.	13.896	13.187
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	3.749	4.367	4.701	4.231	13.299	17.049	16.180
		ISLAND TOTAL	30.086	30.911	34.462	31.016	96.389	126.475	120.027
8. BALANCE-OF-PLANT	83.	STRUCTURES-MISCELLAN	0.	3.085	3.062	2.756	8.903	8.903	8.449
		ISLAND TOTAL	0.	3.085	3.062	2.756	8.903	8.903	8.449
TOTAL THIS CASE			47.627	35.236	39.643	35.679	110.558	158.185	33.860
INDIRECT COSTS		SPARES						0.953	
		START UP						1.225	
		SPARES+STARTUP						2.178	
		CONTINGENCY						24.054	
		ENGINEERING SERVICES						9.622	
		A-E FEE						8.018	
GRAND TOTAL								202.057	

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PROCESS 29113

ECS TISTMT PROCESS MEGAWATTS 126.00 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 3042.
TI-STMTB-1465/1000F SITE FUEL= COAL COGEN FUEL BTU*10**6= 1798. KW FUEL= 526849.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	2.177	0.435	1.415	1.274	3.124	5.301	10.062
	ISLAND TOTAL	2.177	0.435	1.415	1.274	3.124	5.301	10.062
3. ENERGY-CONVERSION	33. THERMIONIC-BOILER/GE	48.929	51.542	46.723	42.050	140.315	189.244	359.201
	30. STEAM-TURBINE-GENERA	6.099	0.	0.	0.	0.	6.099	11.577
	ISLAND TOTAL	55.028	51.542	46.723	42.050	140.315	195.344	370.777
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	16.595	19.451	20.858	18.772	59.081	75.675	143.637
	ISLAND TOTAL	16.595	19.451	20.858	18.772	59.081	75.675	143.637
TOTAL THIS CASE		73.800	71.429	68.995	62.096	202.520	276.320	117.863
INDIRECT COSTS	SPARES						1.476	
	START UP						2.142	
	SPARES+STARTUP						3.618	
	CONTINGENCY						41.991	
	ENGINEERING SERVICES						16.796	
	A-E FEE						13.997	
GRAND TOTAL							352.722	

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PROCESS 29113

ECS TISTMT PROCESS MEGAWATTS 126.00 PROCESS TEMP. 470. PROCESS HEAT(BTU*10**6) 3042.
TI-STMTB-1465/1000F SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 1798. KW FUEL= 526849.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.516	0.103	0.619	0.557	1.279	1.794	3.406
	ISLAND TOTAL	0.516	0.103	0.619	0.557	1.279	1.794	3.406
3. ENERGY-CONVERSION	33. THERMIONIC-BOILER/GE	44.361	37.099	36.029	32.426	105.554	149.915	284.550
	30. STEAM-TURBINE-GENERA	6.099	0.	0.	0.	0.	6.099	11.577
	ISLAND TOTAL	50.460	37.099	36.029	32.426	105.554	156.014	296.127
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	7.017	7.438	13.122	11.810	32.371	39.388	74.762
	ISLAND TOTAL	7.017	7.438	13.122	11.810	32.371	39.388	74.762
TOTAL THIS CASE		57.993	44.640	49.770	44.793	139.203	197.197	85.021

INDIRECT COSTS	SPARES	1.160
	START UP	1.524
	SPARES+STARTUP	2.684
	CONTINGENCY	29.982
	ENGINEERING SERVICES	11.993
	A-E FEE	9.994
GRAND TOTAL		251.849

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PROCESS 33121

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 93.
N O C O G E N E R A T I SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.095	0.019	0.062	0.056	0.136	0.231	0.
	3. LIMESTONE/DOLOMITE-U	0.081	0.092	0.083	0.075	0.251	0.332	0.
	ISLAND TOTAL	0.176	0.111	0.145	0.131	0.387	0.563	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	2.803	0.701	0.706	0.635	2.041	4.844	0.
	ISLAND TOTAL	2.803	0.701	0.706	0.635	2.041	4.844	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.135	0.119	0.107	0.360	0.360	0.
	ISLAND TOTAL	0.	0.135	0.119	0.107	0.360	0.360	0.
TOTAL THIS CASE		2.979	0.947	0.969	0.873	2.789	5.768	0.
INDIRECT COSTS	SPARES						0.060	
	START UP						0.049	
	SPARES+STARTUP						0.109	
	CONTINGENCY						0.881	
	ENGINEERING SERVICES						0.353	
	A-E FEE						0.294	
GRAND TOTAL							7.404	

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PROCESS 33121

ECS CC1222 PROCESS MEGAWATTS 25.39 PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 93.
GTST-12/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 251. KW FUEL= 73479.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.102	0.020	0.122	0.110	0.253	0.355	4.828
	ISLAND TOTAL	0.102	0.020	0.122	0.110	0.253	0.355	4.828
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	3.777	0.491	0.284	0.255	1.031	4.807	65.426
	30. STEAM-TURBINE-GENERA	0.900	0.	0.	0.	0.	0.900	12.249
	ISLAND TOTAL	4.677	0.491	0.284	0.255	1.031	5.707	77.675
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.405	0.353	0.702	0.631	1.686	2.091	28.452
	ISLAND TOTAL	0.405	0.353	0.702	0.631	1.686	2.091	28.452
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.077	0.067	0.061	0.205	0.205	2.795
	80. MASTER-CONTROL	0.056	0.008	0.014	0.013	0.035	0.091	1.244
	81. ELECTRIC-SWITCHGEAR-	0.	0.033	0.033	0.030	0.096	0.096	1.303
	82. INTERCONNECTING-PIPI	0.	0.065	0.065	0.058	0.187	0.187	2.547
	83. STRUCTURES-MISCELLAN	0.	0.276	0.250	0.225	0.751	0.751	10.225
	ISLAND TOTAL	0.056	0.460	0.429	0.386	1.275	1.331	18.114
TOTAL THIS CASE		5.239	1.325	1.537	1.383	4.244	9.484	18.822
INDIRECT COSTS	SPARES						0.105	
	START UP						0.081	
	SPARES+STARTUP						0.186	
	CONTINGENCY						1.450	
	ENGINEERING SERVICES						0.580	
	A-E FEE						0.483	
GRAND TOTAL							12.184	

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PROCESS 33121

ECS GTSOAR PROCESS MEGAWATTS 19.89 PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 93.
GT-HRSG-10/1750R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 234. KW FUEL= 68583.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
			********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.098	0.020	0.118	0.106	0.243	0.341	4.970
		ISLAND TOTAL	0.098	0.020	0.118	0.106	0.243	0.341	4.970
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	3.982	0.504	0.292	0.263	1.060	5.042	73.514
		ISLAND TOTAL	3.982	0.504	0.292	0.263	1.060	5.042	73.514
4. BOTTOMING-CYCLE	40.	HEAT-RECOVERY-STEAM-	0.416	0.361	0.700	0.630	1.691	2.107	30.727
		ISLAND TOTAL	0.416	0.361	0.700	0.630	1.691	2.107	30.727
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	0.096	0.084	0.076	0.256	0.256	3.728
	80.	MASTER-CONTROL	0.064	0.010	0.016	0.014	0.040	0.103	1.506
	81.	ELECTRIC-SWITCHGEAR-	0.	0.035	0.035	0.031	0.101	0.101	1.475
	82.	INTERCONNECTING-PIPI	0.	0.068	0.068	0.062	0.198	0.198	2.893
	83.	STRUCTURES-MISCELLAN	0.	0.260	0.235	0.211	0.707	0.707	10.306
		ISLAND TOTAL	0.064	0.469	0.438	0.394	1.302	1.365	19.908
TOTAL THIS CASE			4.560	1.354	1.548	1.393	4.296	8.855	20.313
INDIRECT COSTS		SPARES						0.091	
		START UP						0.075	
		SPARES+STARTUP						0.166	
		CONTINGENCY						1.353	
		ENGINEERING SERVICES						0.541	
		A-E FEE						0.451	
GRAND TOTAL								11.367	

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PROCESS 33251

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 446. PROCESS HEAT(BTU*10**6) 912.
N O C O G E N E R A T I SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.683	0.137	0.444	0.400	0.981	1.664	0.
	3. LIMESTONE/DOLOMITE-U	0.415	0.243	0.214	0.193	0.649	1.064	0.
	ISLAND TOTAL	1.098	0.379	0.658	0.593	1.630	2.728	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	7.945	9.287	9.975	8.978	28.240	36.184	0.
	ISLAND TOTAL	7.945	9.287	9.975	8.978	28.240	36.184	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.971	0.922	0.830	2.723	2.723	0.
	ISLAND TOTAL	0.	0.971	0.922	0.830	2.723	2.723	0.
TOTAL THIS CASE		9.043	10.637	11.556	10.400	32.593	41.636	0.

INDIRECT COSTS	SPARES	0.181
	START UP	0.312
	SPARES+STARTUP	0.493
	CONTINGENCY	6.319
	ENGINEERING SERVICES	2.528
	A-E FEE	2.106
GRAND TOTAL		53.082

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PROCESS 33251

ECS CC1626 PROCESS MEGAWATTS 280.00 PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 912.
GTST-16/2600/1465-WC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 2711. KW FUEL= 794347.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.406	0.081	0.487	0.438	1.007	1.413	1.779
	ISLAND TOTAL	0.406	0.081	0.487	0.438	1.007	1.413	1.779
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	31.609	3.327	1.981	1.783	7.091	38.699	48.719
	30. STEAM-TURBINE-GENERA	3.579	0.	0.	0.	0.	3.579	4.505
	ISLAND TOTAL	35.187	3.327	1.981	1.783	7.091	42.278	53.224
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	2.634	2.249	4.050	3.645	9.943	12.577	15.833
	ISLAND TOTAL	2.634	2.249	4.050	3.645	9.943	12.577	15.833
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.034	0.071	0.109	0.098	0.278	0.313	0.394
	ISLAND TOTAL	0.034	0.071	0.109	0.098	0.278	0.313	0.394
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.583	0.511	0.459	1.554	1.554	1.956
	80. MASTER-CONTROL	0.260	0.039	0.065	0.058	0.162	0.422	0.531
	81. ELECTRIC-SWITCHGEAR-	0.	0.295	0.295	0.265	0.855	0.855	1.076
	82. INTERCONNECTING-PIPI	0.	0.558	0.558	0.502	1.617	1.617	2.036
	83. STRUCTURES-MISCELLAN	0.	2.167	2.122	1.910	6.199	6.199	7.804
	ISLAND TOTAL	0.260	3.642	3.550	3.195	10.387	10.646	13.402
TOTAL THIS CASE		38.521	9.370	10.177	9.159	28.706	67.226	11.530
INDIRECT COSTS	SPARES						0.770	
	START UP						0.581	
	SPARES+STARTUP						1.351	
	CONTINGENCY						10.287	
	ENGINEERING SERVICES						4.115	
	A-E FEE						3.429	

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PROCESS 33251

ECS FCSTCL PROCESS MEGAWATTS 219.86 PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 912.
FUEL-CL-STMTB-COAL SITE FUEL= COAL COGEN FUEL BTU*10**6= 2133. KW FUEL= 625189.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	1.238	0.248	0.805	0.724	1.776	3.014	4.822
	ISLAND TOTAL	1.238	0.248	0.805	0.724	1.776	3.014	4.822
2. FUEL-UTILIZATION-CLE	25. COAL-GASIFIER	22.588	16.038	14.457	13.011	43.505	66.094	105.718
	ISLAND TOTAL	22.588	16.038	14.457	13.011	43.505	66.094	105.718
3. ENERGY-CONVERSION	35. FUEL-CELLS-MOLTEN-CA	29.330	8.799	4.693	4.224	17.715	47.045	75.250
	30. STEAM-TURBINE-GENERA	4.207	0.	0.	0.	0.	4.207	6.729
	ISLAND TOTAL	33.537	8.799	4.693	4.224	17.715	51.252	81.979
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	1.902	1.664	1.498	5.064	5.064	8.100
	80. MASTER-CONTROL	0.889	0.133	0.222	0.200	0.556	1.445	2.311
	81. ELECTRIC-SWITCHGEAR-	0.	0.945	0.945	0.851	2.742	2.742	4.385
	82. INTERCONNECTING-PIPI	0.	1.793	1.793	1.614	5.200	5.200	8.318
	83. STRUCTURES-MISCELLAN	0.	1.760	1.709	1.538	5.007	5.007	8.009
	ISLAND TOTAL	0.889	6.534	6.334	5.701	18.569	19.458	31.123
TOTAL THIS CASE		58.252	31.618	26.288	23.659	81.566	139.818	37.843
INDIRECT COSTS	SPARES						1.165	
	START UP						1.162	
	SPARES+STARTUP						2.327	
	CONTINGENCY						21.322	
	ENGINEERING SERVICES						8.529	
	A-E FEE						7.107	
GRAND TOTAL							179.102	

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PROCESS 33251

ECS STM141 PROCESS MEGAWATTS 29.62 PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 912.
STM-TURB-1465/1000F SITE FUEL= COAL-FGD COGEN FUEL BTU*10**6= 1192. KW FUEL= 349254.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.748	0.150	0.486	0.438	1.074	1.822	5.216
	3. LIMESTONE/DOLOMITE-U	0.447	0.254	0.224	0.201	0.679	1.126	3.223
	ISLAND TOTAL	1.195	0.403	0.710	0.639	1.753	2.948	8.440
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	9.279	9.318	10.485	9.437	29.240	38.520	110.291
	ISLAND TOTAL	9.279	9.318	10.485	9.437	29.240	38.520	110.291
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.191	0.	0.	0.	0.	4.191	12.001
	ISLAND TOTAL	4.191	0.	0.	0.	0.	4.191	12.001
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.064	1.013	0.912	2.989	2.989	8.558
	ISLAND TOTAL	0.	1.064	1.013	0.912	2.989	2.989	8.558
TOTAL THIS CASE		14.666	10.785	12.209	10.988	33.982	48.648	31.461
INDIRECT COSTS	SPARES						0.293	
	START UP						0.377	
	SPARES+STARTUP						0.670	
	CONTINGENCY						7.398	
	ENGINEERING SERVICES						2.959	
	A-E FEE						2.466	
GRAND TOTAL							62.140	

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PROCESS 33254

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 91.
N O C O G E N E R A T I SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.093	0.019	0.061	0.055	0.134	0.227	0.
	3. LIMESTONE/DOLOMITE-U	0.080	0.092	0.083	0.074	0.249	0.328	0.
	ISLAND TOTAL	0.173	0.110	0.143	0.129	0.382	0.555	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	2.767	0.692	0.699	0.629	2.019	4.786	0.
	ISLAND TOTAL	2.767	0.692	0.699	0.629	2.019	4.786	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.132	0.116	0.105	0.354	0.354	0.
	ISLAND TOTAL	0.	0.132	0.116	0.105	0.354	0.354	0.
TOTAL THIS CASE		2.940	0.934	0.958	0.863	2.755	5.695	0.
INDIRECT COSTS	SPARES						0.059	
	START UP						0.048	
	SPARES+STARTUP						0.107	
	CONTINGENCY						0.870	
	ENGINEERING SERVICES						0.348	
	A-E FEE						0.290	
GRAND TOTAL							7.311	

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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33254

ECS CC1222 PROCESS MEGAWATTS 24.85 PROCESS TEMP. 448. PROCESS HEAT(BTU*10**6) 91.
GTST-12/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 245. KW FUEL= 71898.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.101	0.020	0.121	0.109	0.250	0.350	4.872
	ISLAND TOTAL	0.101	0.020	0.121	0.109	0.250	0.350	4.872
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	3.706	0.484	0.279	0.251	1.015	4.721	65.658
	30. STEAM-TURBINE-GENERA	0.887	0.	0.	0.	0.	0.887	12.337
	ISLAND TOTAL	4.593	0.484	0.279	0.251	1.015	5.608	77.995
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.399	0.348	0.693	0.624	1.666	2.065	28.717
	ISLAND TOTAL	0.399	0.348	0.693	0.624	1.666	2.065	28.717
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.076	0.066	0.060	0.202	0.202	2.804
	80. MASTER-CONTROL	0.055	0.008	0.014	0.012	0.035	0.090	1.254
	81. ELECTRIC-SWITCHGEAR-	0.	0.032	0.032	0.029	0.094	0.094	1.305
	82. INTERCONNECTING-PIPI	0.	0.063	0.063	0.057	0.184	0.184	2.553
	83. STRUCTURES-MISCELLAN	0.	0.271	0.245	0.221	0.737	0.737	10.250
	ISLAND TOTAL	0.055	0.451	0.421	0.379	1.251	1.306	18.166
TOTAL THIS CASE		5.148	1.303	1.514	1.363	4.181	9.329	18.955
INDIRECT COSTS	SPARES						0.103	
	START UP						0.080	
	SPARES+STARTUP						0.183	
	CONTINGENCY						1.427	
	ENGINEERING SERVICES						0.571	
	A-E FEE						0.476	
GRAND TOTAL							11.984	

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PROCESS 33314

ECS ONOCGN PROCESS MEGAWATTS 0. PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
N O C O G E N E R A T I SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.046	0.009	0.030	0.027	0.066	0.112	0.
	3. LIMESTONE/DOLOMITE-U	0.044	0.065	0.059	0.053	0.176	0.221	0.
	ISLAND TOTAL	0.090	0.074	0.089	0.080	0.242	0.332	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	1.707	0.427	0.482	0.434	1.342	3.049	0.
	ISLAND TOTAL	1.707	0.427	0.482	0.434	1.342	3.049	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.065	0.056	0.050	0.171	0.171	0.
	ISLAND TOTAL	0.	0.065	0.056	0.050	0.171	0.171	0.
TOTAL THIS CASE		1.797	0.566	0.626	0.563	1.755	3.552	0.
INDIRECT COSTS	SPARES						0.036	
	START UP						0.030	
	SPARES+STARTUP						0.066	
	CONTINGENCY						0.543	
	ENGINEERING SERVICES						0.217	
	A-E FEE						0.181	
GRAND TOTAL							4.556	

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PROCESS 33314

ECS CC1222 PROCESS MEGAWATTS 10.10 PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
GTST-12/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 94. KW FUEL= 27406.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.061	0.012	0.073	0.065	0.150	0.211	7.694
	ISLAND TOTAL	0.061	0.012	0.073	0.065	0.150	0.211	7.694
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.607	0.242	0.137	0.123	0.501	2.109	76.943
	30. STEAM-TURBINE-GENERA	0.628	0.	0.	0.	0.	0.628	22.923
	ISLAND TOTAL	2.236	0.242	0.137	0.123	0.501	2.737	99.866
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.215	0.191	0.412	0.371	0.974	1.189	43.377
	ISLAND TOTAL	0.215	0.191	0.412	0.371	0.974	1.189	43.377
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.055	0.114	0.174	0.157	0.445	0.500	18.230
	ISLAND TOTAL	0.055	0.114	0.174	0.157	0.445	0.500	18.230
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.036	0.032	0.028	0.096	0.096	3.499
	80. MASTER-CONTROL	0.033	0.005	0.008	0.007	0.021	0.054	1.954
	81. ELECTRIC-SWITCHGEAR-	0.	0.014	0.014	0.013	0.041	0.041	1.507
	82. INTERCONNECTING-PIPI	0.	0.030	0.030	0.027	0.088	0.088	3.211
	83. STRUCTURES-MISCELLAN	0.	0.127	0.112	0.101	0.340	0.340	12.394
	ISLAND TOTAL	0.033	0.213	0.196	0.176	0.585	0.618	22.564
TOTAL THIS CASE		2.599	0.772	0.991	0.892	2.655	5.256	32.547
INDIRECT COSTS	SPARES						0.052	
	START UP						0.044	
	SPARES+STARTUP						0.096	
	CONTINGENCY						0.803	
	ENGINEERING SERVICES						0.321	
	A-E FEE						0.268	

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PROCESS 33314

ECS CC1622 PROCESS MEGAWATTS 10.10 PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
GTST-16/2200/865--AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 94. KW FUEL= 27467.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1.	FUEL-OIL-UNLOADING-S	0.061	0.012	0.073	0.066	0.151	0.211	7.693
		ISLAND TOTAL	0.061	0.012	0.073	0.066	0.151	0.211	7.693
3. ENERGY-CONVERSION	31.	GAS-TURBINE-GENERATO	1.829	0.273	0.155	0.139	0.568	2.396	87.182
	30.	STEAM-TURBINE-GENERA	0.454	0.	0.	0.	0.	0.454	16.528
		ISLAND TOTAL	2.283	0.273	0.155	0.139	0.568	2.851	103.710
4. BOTTOMING-CYCLE	40.	HEAT-RECOVERY-STEAM-	0.238	0.210	0.445	0.400	1.055	1.293	47.041
		ISLAND TOTAL	0.238	0.210	0.445	0.400	1.055	1.293	47.041
2. FUEL-UTILIZATION-CLE	21.	OIL-FIRED-BOILER	0.056	0.116	0.177	0.159	0.451	0.507	18.456
		ISLAND TOTAL	0.056	0.116	0.177	0.159	0.451	0.507	18.456
8. BALANCE-OF-PLANT	84.	POWER-PLANT-STRUCTUR	0.	0.036	0.032	0.028	0.096	0.096	3.503
	80.	MASTER-CONTROL	0.033	0.005	0.008	0.007	0.021	0.054	1.951
	81.	ELECTRIC-SWITCHGEAR-	0.	0.014	0.014	0.013	0.041	0.041	1.502
	82.	INTERCONNECTING-PIPI	0.	0.030	0.030	0.027	0.088	0.088	3.207
	83.	STRUCTURES-MISCELLAN	0.	0.128	0.112	0.101	0.341	0.341	12.410
		ISLAND TOTAL	0.033	0.214	0.197	0.177	0.587	0.620	22.573
TOTAL THIS CASE			2.670	0.825	1.046	0.941	2.813	5.483	34.246
INDIRECT COSTS		SPARES						0.053	
		START UP						0.045	
		SPARES+STARTUP						0.099	
		CONTINGENCY						0.837	
		ENGINEERING SERVICES						0.335	
		A-E FEE						0.279	

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PROCESS 33314

ECS DEADV3 PROCESS MEGAWATTS 10.10 PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
DIESEL-ADVANCED-3 SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 93. KW FUEL= 27220.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.066	0.013	0.079	0.071	0.163	0.228	8.393
	ISLAND TOTAL	0.066	0.013	0.079	0.071	0.163	0.228	8.393
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	3.975	0.373	0.373	0.336	1.082	5.057	185.801
	ISLAND TOTAL	3.975	0.373	0.373	0.336	1.082	5.057	185.801
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.103	0.214	0.327	0.294	0.836	0.939	34.498
	ISLAND TOTAL	0.103	0.214	0.327	0.294	0.836	0.939	34.498
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.162	0.142	0.128	0.431	0.431	15.846
	80. MASTER-CONTROL	0.143	0.022	0.036	0.032	0.090	0.233	8.557
	81. ELECTRIC-SWITCHGEAR-	0.	0.057	0.057	0.051	0.165	0.165	6.069
	82. INTERCONNECTING-PIPI	0.	0.068	0.068	0.061	0.198	0.198	7.277
	83. STRUCTURES-MISCELLAN	0.	0.144	0.126	0.114	0.384	0.384	14.102
	ISLAND TOTAL	0.143	0.452	0.429	0.386	1.268	1.411	51.850
TOTAL THIS CASE		4.288	1.053	1.208	1.087	3.348	7.636	39.950
INDIRECT COSTS	SPARES						0.086	
	START UP						0.065	
	SPARES+STARTUP						0.151	
	CONTINGENCY						1.168	
	ENGINEERING SERVICES						0.467	
	A-E FEE						0.389	
GRAND TOTAL							9.812	

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PROCESS 33314

ECS DEHTPM PROCESS MEGAWATTS 8.97 PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
ADV-DIESEL-HEAT-PUMP SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 93. KW FUEL= 27353.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978 ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.057	0.011	0.069	0.062	0.142	0.200	7.310
	ISLAND TOTAL	0.057	0.011	0.069	0.062	0.142	0.200	7.310
3. ENERGY-CONVERSION	32. DIESEL-ENGINE-GENERA	3.987	0.374	0.374	0.337	1.085	5.072	185.428
	32. DIESEL-ENGINE-GENERA	0.157	0.019	0.017	0.016	0.052	0.208	7.610
	ISLAND TOTAL	4.144	0.393	0.391	0.352	1.136	5.280	193.038
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.133	0.117	0.105	0.355	0.355	12.972
	80. MASTER-CONTROL	0.116	0.017	0.029	0.026	0.073	0.189	6.893
	81. ELECTRIC-SWITCHGEAR-	0.	0.051	0.051	0.046	0.148	0.148	5.418
	82. INTERCONNECTING-PIPI	0.	0.051	0.051	0.046	0.147	0.147	5.374
	83. STRUCTURES-MISCELLAN	0.	0.118	0.103	0.093	0.313	0.313	11.450
	ISLAND TOTAL	0.116	0.370	0.350	0.315	1.036	1.152	42.108
TOTAL THIS CASE		4.317	0.774	0.811	0.729	2.314	6.632	26.670
INDIRECT COSTS	SPARES						0.086	
	START UP						0.059	
	SPARES+STARTUP						0.145	
	CONTINGENCY						1.017	
	ENGINEERING SERVICES						0.407	
	A-E FEE						0.339	
GRAND TOTAL							8.539	

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PROCESS 33314

ECS GTAC12 PROCESS MEGAWATTS 7.70 PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
GT-HRSG-12/2200R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 86. KW FUEL= 25248.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.055	0.011	0.066	0.059	0.136	0.191	7.560
	ISLAND TOTAL	0.055	0.011	0.066	0.059	0.136	0.191	7.560
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.497	0.228	0.129	0.116	0.472	1.969	77.999
	ISLAND TOTAL	1.497	0.228	0.129	0.116	0.472	1.969	77.999
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.239	0.212	0.448	0.403	1.062	1.301	51.548
	ISLAND TOTAL	0.239	0.212	0.448	0.403	1.062	1.301	51.548
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.041	0.036	0.032	0.109	0.109	4.333
	80. MASTER-CONTROL	0.035	0.005	0.009	0.008	0.022	0.056	2.237
	81. ELECTRIC-SWITCHGEAR-	0.	0.015	0.015	0.013	0.043	0.043	1.686
	82. INTERCONNECTING-PIPI	0.	0.029	0.029	0.026	0.085	0.085	3.352
	83. STRUCTURES-MISCELLAN	0.	0.110	0.096	0.086	0.292	0.292	11.555
	ISLAND TOTAL	0.035	0.200	0.184	0.166	0.550	0.585	23.163
TOTAL THIS CASE		1.826	0.651	0.826	0.744	2.220	4.046	29.452
INDIRECT COSTS	SPARES						0.037	
	START UP						0.033	
	SPARES+STARTUP						0.070	
	CONTINGENCY						0.617	
	ENGINEERING SERVICES						0.247	
	A-E FEE						0.206	
GRAND TOTAL							5.186	

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PROCESS 33314

ECS GTAC16 PROCESS MEGAWATTS 8.75 PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
GT-HRSG-16/2200R-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 92. KW FUEL= 27090.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.057	0.011	0.069	0.062	0.142	0.199	7.340
	ISLAND TOTAL	0.057	0.011	0.069	0.062	0.142	0.199	7.340
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.845	0.276	0.156	0.140	0.572	2.417	89.238
	ISLAND TOTAL	1.845	0.276	0.156	0.140	0.572	2.417	89.238
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.239	0.212	0.448	0.403	1.062	1.301	48.042
	ISLAND TOTAL	0.239	0.212	0.448	0.403	1.062	1.301	48.042
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.044	0.038	0.034	0.116	0.116	4.287
	80. MASTER-CONTROL	0.038	0.006	0.009	0.008	0.024	0.061	2.261
	81. ELECTRIC-SWITCHGEAR-	0.	0.016	0.016	0.015	0.048	0.048	1.766
	82. INTERCONNECTING-PIPI	0.	0.033	0.033	0.029	0.095	0.095	3.504
	83. STRUCTURES-MISCELLAN	0.	0.117	0.102	0.092	0.311	0.311	11.462
	ISLAND TOTAL	0.038	0.215	0.199	0.179	0.593	0.631	23.281
TOTAL THIS CASE		2.180	0.714	0.871	0.784	2.369	4.548	28.934
INDIRECT COSTS	SPARES						0.044	
	START UP						0.038	
	SPARES+STARTUP						0.081	
	CONTINGENCY						0.694	
	ENGINEERING SERVICES						0.278	
	A-E FEE						0.231	
GRAND TOTAL							5.833	

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PROCESS 33314

ECS GTSOAD PROCESS MEGAWATTS 7.43 PROCESS TEMP. 364. PROCESS HEAT(BTU*10**6) 40.
GT-HRSG-10/2000D-AC SITE FUEL= DISTILLA COGEN FUEL BTU*10**6= 87. KW FUEL= 25438.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.055	0.011	0.066	0.059	0.137	0.192	7.536
	ISLAND TOTAL	0.055	0.011	0.066	0.059	0.137	0.192	7.536
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	1.255	0.188	0.107	0.096	0.391	1.646	64.696
	ISLAND TOTAL	1.255	0.188	0.107	0.096	0.391	1.646	64.696
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.239	0.212	0.448	0.403	1.062	1.301	51.162
	ISLAND TOTAL	0.239	0.212	0.448	0.403	1.062	1.301	51.162
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.041	0.036	0.033	0.110	0.110	4.328
	80. MASTER-CONTROL	0.034	0.005	0.008	0.008	0.021	0.055	2.170
	81. ELECTRIC-SWITCHGEAR-	0.	0.014	0.014	0.013	0.041	0.041	1.619
	82. INTERCONNECTING-PIPI	0.	0.028	0.028	0.025	0.082	0.082	3.221
	83. STRUCTURES-MISCELLAN	0.	0.111	0.096	0.087	0.294	0.294	11.545
	ISLAND TOTAL	0.034	0.199	0.184	0.165	0.548	0.582	22.884
TOTAL THIS CASE		1.583	0.611	0.804	0.723	2.138	3.721	28.437
INDIRECT COSTS	SPARES						0.032	
	START UP						0.030	
	SPARES+STARTUP						0.062	
	CONTINGENCY						0.567	
	ENGINEERING SERVICES						0.227	
	A-E FEE						0.189	
GRAND TOTAL							4.766	

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PROCESS 33315

ECS ONOCGN N O C O G E N E R A T I PROCESS MEGAWATTS 0. PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 60.
SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 0. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.065	0.013	0.042	0.038	0.093	0.158	0.
	3. LIMESTONE/DOLOMITE-U	0.059	0.077	0.070	0.063	0.209	0.268	0.
	ISLAND TOTAL	0.124	0.090	0.112	0.101	0.302	0.427	0.
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	2.166	0.542	0.579	0.521	1.641	3.807	0.
	ISLAND TOTAL	2.166	0.542	0.579	0.521	1.641	3.807	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	0.092	0.080	0.072	0.245	0.245	0.
	ISLAND TOTAL	0.	0.092	0.080	0.072	0.245	0.245	0.
TOTAL THIS CASE		2.290	0.724	0.771	0.694	2.188	4.478	0.
INDIRECT COSTS	SPARES						0.046	
	START UP						0.038	
	SPARES+STARTUP						0.084	
	CONTINGENCY						0.684	
	ENGINEERING SERVICES						0.274	
	A-E FEE						0.228	
GRAND TOTAL							5.748	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33315

ECS CC1222 PROCESS MEGAWATTS 18.50 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 60.
GTST-12/2200/1465-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 172. KW FUEL= 50275.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.082	0.016	0.098	0.088	0.203	0.285	5.666
	ISLAND TOTAL	0.082	0.016	0.098	0.088	0.203	0.285	5.666
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	2.719	0.374	0.214	0.193	0.781	3.500	69.612
	30. STEAM-TURBINE-GENERA	0.938	0.	0.	0.	0.	0.938	18.648
	ISLAND TOTAL	3.656	0.374	0.214	0.193	0.781	4.437	88.260
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.317	0.279	0.571	0.514	1.365	1.682	33.457
	ISLAND TOTAL	0.317	0.279	0.571	0.514	1.365	1.682	33.457
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.006	0.013	0.020	0.018	0.050	0.057	1.126
	ISLAND TOTAL	0.006	0.013	0.020	0.018	0.050	0.057	1.126
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.056	0.049	0.044	0.149	0.149	2.963
	80. MASTER-CONTROL	0.046	0.007	0.012	0.010	0.029	0.075	1.488
	81. ELECTRIC-SWITCHGEAR-	0.	0.025	0.025	0.022	0.072	0.072	1.427
	82. INTERCONNECTING-PIPI	0.	0.049	0.049	0.044	0.141	0.141	2.805
	83. STRUCTURES-MISCELLAN	0.	0.199	0.178	0.160	0.538	0.538	10.692
	ISLAND TOTAL	0.046	0.336	0.312	0.281	0.928	0.974	19.374
TOTAL THIS CASE		4.108	1.018	1.215	1.094	3.327	7.435	21.758

INDIRECT COSTS	SPARES	0.082
	START UP	0.063
	SPARES+STARTUP	0.146
	CONTINGENCY	1.137
	ENGINEERING SERVICES	0.455
	A-E FEE	0.379

C A L TOTAL 9.551

GENERAL ELECTRIC COMPANY

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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PROCESS 33315

ECS CC1622 PROCESS MEGAWATTS 18.50 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 60.
GTST-16/2200/865--AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 172. KW FUEL= 50421.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.082	0.016	0.099	0.089	0.204	0.286	5.667
	ISLAND TOTAL	0.082	0.016	0.099	0.089	0.204	0.286	5.667
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	3.087	0.423	0.242	0.218	0.883	3.970	78.738
	30. STEAM-TURBINE-GENERA	0.704	0.	0.	0.	0.	0.704	13.967
	ISLAND TOTAL	3.792	0.423	0.242	0.218	0.883	4.674	92.705
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.341	0.299	0.604	0.544	1.447	1.788	35.463
	ISLAND TOTAL	0.341	0.299	0.604	0.544	1.447	1.788	35.463
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.011	0.023	0.036	0.032	0.091	0.103	2.034
	ISLAND TOTAL	0.011	0.023	0.036	0.032	0.091	0.103	2.034
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.056	0.049	0.044	0.150	0.150	2.968
	80. MASTER-CONTROL	0.046	0.007	0.012	0.010	0.029	0.075	1.486
	81. ELECTRIC-SWITCHGEAR-	0.	0.025	0.025	0.022	0.072	0.072	1.422
	82. INTERCONNECTING-PIPI	0.	0.049	0.049	0.044	0.141	0.141	2.802
	83. STRUCTURES-MISCELLAN	0.	0.200	0.179	0.161	0.540	0.540	10.711
	ISLAND TOTAL	0.046	0.337	0.313	0.282	0.932	0.978	19.389
TOTAL THIS CASE		4.272	1.098	1.294	1.164	3.556	7.828	23.094
INDIRECT COSTS	SPARES						0.085	
	START UP						0.067	
	SPARES+STARTUP						0.152	
	CONTINGENCY						1.197	
	ENGINEERING SERVICES						0.479	
	A-E FEE						0.399	

GRAN JTAL 10.055

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33315

ECS CC1626 PROCESS MEGAWATTS 18.50 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 60.
GTST-16/2600/1465-WC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 169. KW FUEL= 49663.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
		********** COSTS - MILLIONS 1978$ **********						
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.083	0.017	0.100	0.090	0.207	0.290	5.840
	ISLAND TOTAL	0.083	0.017	0.100	0.090	0.207	0.290	5.840
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	3.175	0.453	0.258	0.232	0.943	4.118	82.928
	30. STEAM-TURBINE-GENERA	0.791	0.	0.	0.	0.	0.791	15.935
	ISLAND TOTAL	3.967	0.453	0.258	0.232	0.943	4.910	98.863
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.301	0.265	0.546	0.492	1.303	1.604	32.294
	ISLAND TOTAL	0.301	0.265	0.546	0.492	1.303	1.604	32.294
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.051	0.106	0.161	0.145	0.412	0.463	9.323
	ISLAND TOTAL	0.051	0.106	0.161	0.145	0.412	0.463	9.323
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.057	0.050	0.045	0.153	0.153	3.079
	80. MASTER-CONTROL	0.047	0.007	0.012	0.011	0.029	0.077	1.544
	81. ELECTRIC-SWITCHGEAR-	0.	0.025	0.025	0.022	0.072	0.072	1.444
	82. INTERCONNECTING-PIPI	0.	0.050	0.050	0.045	0.146	0.146	2.940
	83. STRUCTURES-MISCELLAN	0.	0.205	0.183	0.165	0.553	0.553	11.126
	ISLAND TOTAL	0.047	0.344	0.320	0.288	0.953	1.000	20.133
TOTAL THIS CASE		4.449	1.184	1.385	1.247	3.817	8.267	25.113
INDIRECT COSTS	SPARES						0.089	
	START UP						0.070	
	SPARES+STARTUP						0.159	
	CONTINGENCY						1.264	
	ENGINEERING SERVICES						0.506	
	A-E FEE						0.421	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
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CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33315

ECS STIG15 PROCESS MEGAWATTS 18.50 PROCESS TEMP. 366. PROCESS HEAT(BTU*10**6) 60.
STIG-15-16/2200F-AC SITE FUEL= RESIDUAL COGEN FUEL BTU*10**6= 166. KW FUEL= 48549.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	1. FUEL-OIL-UNLOADING-S	0.098	0.020	0.117	0.106	0.243	0.341	7.015
	ISLAND TOTAL	0.098	0.020	0.117	0.106	0.243	0.341	7.015
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	3.284	0.367	0.272	0.245	0.883	4.168	85.844
	ISLAND TOTAL	3.284	0.367	0.272	0.245	0.883	4.168	85.844
4. BOTTOMING-CYCLE	40. HEAT-RECOVERY-STEAM-	0.261	0.230	0.481	0.433	1.145	1.405	28.947
	ISLAND TOTAL	0.261	0.230	0.481	0.433	1.145	1.405	28.947
3. ENERGY-CONVERSION	31. GAS-TURBINE-GENERATO	0.062	0.031	0.037	0.034	0.102	0.164	3.383
	ISLAND TOTAL	3.347	0.398	0.309	0.278	0.985	4.332	89.227
2. FUEL-UTILIZATION-CLE	21. OIL-FIRED-BOILER	0.193	0.400	0.611	0.550	1.561	1.754	36.127
	ISLAND TOTAL	0.193	0.400	0.611	0.550	1.561	1.754	36.127
8. BALANCE-OF-PLANT	84. POWER-PLANT-STRUCTUR	0.	0.073	0.064	0.057	0.193	0.193	3.985
	80. MASTER-CONTROL	0.056	0.008	0.014	0.013	0.035	0.091	1.872
	81. ELECTRIC-SWITCHGEAR-	0.	0.025	0.025	0.022	0.072	0.072	1.477
	82. INTERCONNECTING-PIPI	0.	0.064	0.064	0.058	0.186	0.186	3.822
	83. STRUCTURES-MISCELLAN	0.	0.260	0.235	0.211	0.706	0.706	14.541
	ISLAND TOTAL	0.056	0.430	0.401	0.361	1.192	1.248	25.697
TOTAL THIS CASE		3.954	1.478	1.919	1.728	5.125	9.079	35.583
INDIRECT COSTS	SPARES						0.079	
	START UP						0.074	
	SPARES+STARTUP						0.153	
	CONTINGENCY						1.385	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
REPORT 5.3
CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33344

ECS ONOCGN N O C O G E N E R A T I PROCESS MEGAWATTS 0. SITE FUEL= COAL-FGD PROCESS TEMP. 495. COGEN FUEL BTU*10**6= 0. PROCESS HEAT(BTU*10**6) 980. KW FUEL= 0.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.727	0.145	0.473	0.425	1.044	1.771	0.
	3. LIMESTONE/DOLOMITE-U	0.436	0.250	0.221	0.199	0.669	1.106	0.
	ISLAND TOTAL	1.164	0.396	0.693	0.624	1.713	2.877	0.
2. FUEL-UTILIZATION-CLE	22. COAL-FIRED-BOILER	8.307	9.738	10.441	9.397	29.576	37.883	0.
	ISLAND TOTAL	8.307	9.738	10.441	9.397	29.576	37.883	0.
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.034	0.983	0.885	2.902	2.902	0.
	ISLAND TOTAL	0.	1.034	0.983	0.885	2.902	2.902	0.
TOTAL THIS CASE		9.471	11.167	12.118	10.906	34.191	43.662	0.

INDIRECT COSTS	SPARES	0.189
	START UP	0.328
	SPARES+STARTUP	0.517
	CONTINGENCY	8.627
	ENGINEERING SERVICES	2.651
	A-E FEE	2.209
GRAND TOTAL		55.665

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
REPORT 5.3
CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33344

ECS PFBSTM PROCESS MEGAWATTS 69.83 PROCESS TEMP. 495. PROCESS HEAT(BTU*10**6) 980.
PFB-STMTB-1465/1000F SITE FUEL= COAL-PFB COGEN FUEL BTU*10**6= 1452. KW FUEL= 425519.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.888	0.178	0.577	0.519	1.274	2.162	3.080
	3. LIMESTONE/DOLOMITE-U	0.515	0.276	0.243	0.218	0.737	1.252	2.941
	ISLAND TOTAL	1.402	0.453	0.820	0.738	2.011	3.413	8.021
2. FUEL-UTILIZATION-CLE	24. COAL-FIRED-PFB-BOILE	21.264	4.040	2.977	2.679	9.697	30.961	72.761
	ISLAND TOTAL	21.264	4.040	2.977	2.679	9.697	30.961	72.761
4. BOTTOMING-CYCLE	43. EXPANSION-TURBINE-GE	7.440	2.061	1.399	1.259	4.719	12.159	28.575
	ISLAND TOTAL	7.440	2.061	1.399	1.259	4.719	12.159	28.575
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.457	0.	0.	0.	0.	4.457	10.475
	ISLAND TOTAL	4.457	0.	0.	0.	0.	4.457	10.475
TOTAL THIS CASE		34.565	6.554	5.196	4.676	16.426	50.991	10.989
INDIRECT COSTS	SPARES						0.691	
	START UP						0.463	
	SPARES+STARTUP						1.154	
	CONTINGENCY						7.622	
	ENGINEERING SERVICES						3.129	
	A-E FEE						2.607	
GRAND TOTAL							65.703	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
REPORT 5.3
CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33344

ECS STM141 PROCESS MEGAWATTS 34.52 PROCESS TEMP. 495. PROCESS HEAT(BTU*10**6) 980.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1291. KW FUEL= 378460.

ISLAND DESCRIPTION	COMPONENT DESCRIPTION	COSTS - MILLIONS 1978$ MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2. COAL-UNLOAD-STORE-HA	0.802	0.160	0.521	0.469	1.151	1.953	5.161
	3. LIMESTONE/DOLOMITE-U	0.473	0.262	0.231	0.208	0.702	1.175	3.105
	ISLAND TOTAL	1.276	0.423	0.753	0.677	1.853	3.128	8.266
2. FUEL-UTILIZATION-CLE	23. COAL-FIRED-AFB-BOILE	17.272	4.318	3.613	3.252	11.183	28.455	75.186
	ISLAND TOTAL	17.272	4.318	3.613	3.252	11.183	28.455	75.186
3. ENERGY-CONVERSION	30. STEAM-TURBINE-GENERA	4.644	0.	0.	0.	0.	4.644	12.271
	ISLAND TOTAL	4.644	0.	0.	0.	0.	4.644	12.271
8. BALANCE-OF-PLANT	83. STRUCTURES-MISCELLAN	0.	1.140	1.089	0.980	3.209	3.209	8.480
	ISLAND TOTAL	0.	1.140	1.089	0.980	3.209	3.209	8.480
TOTAL THIS CASE		23.191	5.881	5.455	4.909	16.245	39.436	12.972
INDIRECT COSTS	SPARES						0.464	
	START UP						0.345	
	SPARES+STARTUP						0.809	
	CONTINGENCY						6.037	
	ENGINEERING SERVICES						2.415	
	A-E FEE						2.012	
GRAND TOTAL							50.709	

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY
REPORT 5.3
CAPITAL COSTS BY ISLAND FOR SELECTED PROCESS-ECS MATCHES

PROCESS 33344

ECS STM141 PROCESS MEGAWATTS 30.29 PROCESS TEMP. 495. PROCESS HEAT(BTU*10**6) 980.
STM-TURB-1465/1000F SITE FUEL= COAL-AFB COGEN FUEL BTU*10**6= 1133. KW FUEL= 332114.

ISLAND DESCRIPTION		COMPONENT DESCRIPTION	********** COSTS - MILLIONS 1978$ ********** MAJOR EQUIPMNT	INSTALL MAT'L	INSTALL LABOR	INDRCT FLD CST	TOTAL INSTALLD	TOTAL	$PER-KW FUEL
1. FUEL-HANDLING	2.	COAL-UNLOAD-STORE-HA	0.793	0.159	0.516	0.464	1.138	1.931	5.815
	3.	LIMESTONE/DOLOMITE-U	0.469	0.261	0.230	0.207	0.698	1.167	3.513
		ISLAND TOTAL	1.262	0.420	0.745	0.671	1.836	3.098	9.328
2. FUEL-UTILIZATION-CLE	23.	COAL-FIRED-AFB-BOILE	13.537	3.384	2.728	2.456	8.568	22.105	66.558
		ISLAND TOTAL	13.537	3.384	2.728	2.456	8.568	22.105	66.558
3. ENERGY-CONVERSION	30.	STEAM-TURBINE-GENERA	4.255	0.	0.	0.	0.	4.255	12.812
		ISLAND TOTAL	4.255	0.	0.	0.	0.	4.255	12.812
2. FUEL-UTILIZATION-CLE	22.	COAL-FIRED-BOILER	1.736	1.925	2.137	1.924	5.986	7.721	23.249
		ISLAND TOTAL	15.272	5.309	4.866	4.379	14.554	29.826	89.807
8. BALANCE-OF-PLANT	83.	STRUCTURES-MISCELLAN	0.	1.127	1.076	0.968	3.172	3.172	9.551
		ISLAND TOTAL	0.	1.127	1.076	0.968	3.172	3.172	9.551
TOTAL THIS CASE			20.789	6.856	6.687	6.018	19.562	40.351	18.122
INDIRECT COSTS		SPARES						0.416	
		START UP						0.343	
		SPARES+STARTUP						0.759	
		CONTINGENCY						6.167	
		ENGINEERING SERVICES						2.467	
		A-E FEE						2.056	
GRAND TOTAL								51.799	

COAL-FIRED NOCOGENERATION PROCESS BOILER

5.4 - Economic Sensitivity Report for Selected Process-ECS Matches

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	O&M	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
10101	ONOCGN	COAL-FG	10.	0.	0.	0.25	12.3	0.93	0.40	0.83	0.74	3.08	0.	5.97	1.000	0.	0	0
10101	STM141	RESIDUA	10.	0.99	0.439	0.25	8.3	0.63	0.27	0.57	2.42	0.03	0.	3.93	0.658	8.	999	0
10101	STM141	COAL-FG	10.	0.99	0.439	0.25	16.2	1.23	0.52	1.08	1.41	0.03	0.	4.27	0.715	3.	28	4
10101	STM141	COAL-AF	10.	0.99	0.439	0.25	12.5	0.95	0.40	0.96	1.41	0.03	0.	3.74	0.626	7.	999	1
10101	STM088	RESIDUA	10.	0.75	0.333	0.25	7.4	0.56	0.24	0.54	2.15	0.76	0.	4.26	0.713	8.	999	0
10101	STM088	COAL-FG	10.	0.75	0.333	0.25	14.9	1.13	0.48	1.02	1.25	0.76	0.	4.65	0.778	3.	31	4
10101	STM088	COAL-AF	10.	0.75	0.333	0.25	11.8	0.89	0.38	0.92	1.25	0.76	0.	4.20	0.704	6.	999	0
10101	PFBSTM	COAL-PF	10.	1.00	0.436	0.25	20.8	1.58	0.67	1.59	1.43	0.	0.	5.27	0.882	-2.	10	9
10101	PFBSTM	COAL-PF	10.	1.52	0.464	0.25	19.9	1.51	0.64	1.45	1.79	0.	-0.96	4.44	0.744	1.	17	6
10101	TISTMT	RESIDUA	10.	1.00	0.187	0.25	29.6	2.25	0.96	1.27	3.55	0.	0.	8.02	1.344	-15.	0	83
10101	TISTMT	RESIDUA	10.	0.54	0.235	0.25	20.5	1.55	0.66	1.01	1.91	1.42	0.	6.56	1.099	-6.	0	999
10101	TISTMT	COAL	10.	1.00	0.436	0.25	41.4	3.14	1.34	1.96	1.43	0.	0.	7.88	1.319	-20.	0	999
10101	TISTMT	COAL	10.	1.99	0.510	0.25	57.1	4.33	1.84	2.15	2.12	0.	-1.83	8.61	1.441	-30.	0	999
10101	TIHRSG	RESIDUA	10.	0.23	0.083	0.25	17.5	1.30	0.55	0.84	1.62	2.37	0.	6.68	1.119	-5.	0	68
10101	TIHRSG	COAL	10.	0.85	0.306	0.25	48.1	3.65	1.55	1.76	1.49	0.47	0.	8.92	1.494	-26.	0	999
10101	STIRL	DISTILL	10.	1.00	0.148	0.25	11.1	0.82	0.35	0.77	4.56	0.	0.	6.51	1.090	-1.	-26	0
10101	STIRL	DISTILL	10.	0.63	0.201	0.25	9.3	0.69	0.29	0.70	2.86	1.15	0.	5.69	0.953	2.	999	0
10101	STIRL	RESIDUA	10.	1.00	0.148	0.25	11.1	0.83	0.35	0.77	3.72	0.	0.	5.67	0.949	2.	999	0
10101	STIRL	RESIDUA	10.	0.63	0.201	0.25	9.3	0.69	0.29	0.70	2.33	1.15	0.	5.16	0.865	4.	999	0
10101	STIRL	COAL	10.	1.00	0.321	0.25	21.9	1.62	0.69	1.44	1.72	0.	0.	5.47	0.917	-3.	9	10
10101	STIRL	COAL	10.	2.32	0.385	0.25	28.1	2.08	0.88	1.43	3.02	0.	-2.43	4.98	0.834	-4.	9	9
10101	HEGT85	COAL-AF	10.	1.00	0.178	0.25	35.4	2.68	1.14	1.69	2.09	0.	0.	7.60	1.273	-16.	0	999
10101	HEGT85	COAL-AF	10.	6.10	0.235	0.25	91.7	6.96	2.96	3.34	8.97	0.	-9.43	12.80	2.144	-60.	0	999
10101	HEGT60	COAL-AF	10.	1.00	0.191	0.25	34.0	2.58	1.10	1.66	2.05	0.	0.	7.38	1.237	-15.	0	999
10101	HEGT60	COAL-AF	10.	3.00	0.236	0.25	55.1	4.18	1.78	2.12	4.69	0.	-3.70	9.08	1.520	-30.	0	999
10101	HEGT00	COAL-AF	10.	1.00	0.186	0.25	31.2	2.37	1.01	1.56	2.07	0.	0.	7.01	1.173	-12.	0	999
10101	HEGT00	COAL-AF	10.	1.40	0.203	0.25	33.4	2.53	1.08	1.41	2.60	0.	-0.74	6.88	1.152	-13.	0	26
10101	FCMCCL	COAL	10.	1.00	-0.403	0.25	29.8	2.32	0.99	1.72	3.56	0.	0.	8.58	1.437	-17.	0	74
10101	FCMCCL	COAL	10.	2.57	0.092	0.25	40.3	3.13	1.33	2.09	4.88	0.	-2.90	8.53	1.428	-22.	0	999
10101	FCSTCL	COAL	10.	1.00	-0.388	0.25	29.0	2.25	0.96	1.73	3.52	0.	0.	8.47	1.418	-16.	0	74
10101	FCSTCL	COAL	10.	4.18	0.266	0.25	50.3	3.91	1.66	2.65	6.06	0.	-5.87	8.41	1.409	-27.	0	999
10101	IGGTST	COAL	10.	1.00	-0.465	0.25	28.9	2.25	0.96	1.61	3.72	0.	0.	8.53	1.429	-16.	0	72
10101	IGGTST	COAL	10.	2.95	0.065	0.25	40.4	3.14	1.34	1.64	5.65	0.	-3.60	8.18	1.370	-21.	0	999
10101	GTSOAR	RESIDUA	10.	1.00	0.216	0.25	10.6	0.76	0.33	0.71	3.42	0.	0.	5.25	0.879	3.	999	0
10101	GTSOAR	RESIDUA	10.	0.71	0.238	0.25	9.6	0.71	0.30	0.67	2.43	0.89	0.	5.00	0.838	4.	999	0
10101	GTAC08	RESIDUA	10.	1.00	0.158	0.25	9.6	0.71	0.30	0.68	3.68	0.	0.	5.37	0.899	3.	999	0
10101	GTAC03	RESIDUA	10.	0.57	0.215	0.25	8.3	0.62	0.26	0.63	2.10	1.32	0.	4.93	0.826	5.	999	0
10101	GTAC12	RESIDUA	10.	1.00	0.255	0.25	9.8	0.72	0.31	0.68	3.26	0.	0.	4.97	0.832	4.	999	0
10101	GTAC12	RESIDUA	10.	0.71	0.265	0.25	8.8	0.65	0.28	0.65	2.30	0.90	0.	4.78	0.801	5.	999	0
10101	GTAC16	RESIDUA	10.	1.00	0.296	0.25	10.1	0.75	0.32	0.69	3.07	0.	0.	4.83	0.810	5.	999	0
10101	GTAC16	RESIDUA	10.	0.79	0.295	0.25	9.4	0.70	0.30	0.66	2.44	0.63	0.	4.73	0.792	5.	999	0
10101	GTWC16	RESIDUA	10.	1.00	0.279	0.25	10.4	0.77	0.33	0.70	3.15	0.	0.	4.95	0.830	4.	999	0
10101	GTWC16	RESIDUA	10.	0.85	0.280	0.25	9.9	0.73	0.31	0.68	2.67	0.48	0.	4.87	0.815	5.	999	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
10101 CC1626	RESIDUA	10.	1.00	0.331 0.25	10.7	0.81	0.34	0.80	2.92	0.	0.	4.87	0.816	4.	999	0
10101 CC1626	RESIDUA	10.	1.41	0.362 0.25	12.1	0.92	0.39	0.86	3.61	0.	-0.76	5.01	0.839	3.	999	0
10101 CC1622	RESIDUA	10.	1.00	0.347 0.25	10.4	0.79	0.33	0.79	2.85	0.	0.	4.76	0.798	5.	999	0
10101 CC1622	RESIDUA	10.	1.27	0.370 0.25	11.3	0.86	0.37	0.83	3.29	0.	-0.50	4.84	0.810	4.	999	0
10101 CC1222	RESIDUA	10.	1.00	0.350 0.25	10.1	0.77	0.33	0.78	2.84	0.	0.	4.71	0.790	5.	999	0
10101 CC1222	RESIDUA	10.	1.27	0.373 0.25	11.0	0.84	0.36	0.82	3.26	0.	-0.50	4.78	0.800	4.	999	0
10101 CC0822	RESIDUA	10.	1.00	0.375 0.25	10.2	0.78	0.33	0.78	2.73	0.	0.	4.62	0.774	5.	999	0
10101 CC0822	RESIDUA	10.	1.02	0.377 0.25	10.3	0.78	0.33	0.79	2.76	0.	-0.03	4.62	0.774	5.	999	0
10101 STIG15	RESIDUA	10.	1.00	0.123 0.25	10.7	0.79	0.34	0.81	3.83	0.	0.	5.77	0.966	2.	999	0
10101 STIG15	RESIDUA	10.	31.78	0.171 0.25	97.7	7.23	3.08	5.91	82.83	0.	-56.87	42.18	7.065	-154.	0	59
10101 STIG10	RESIDUA	10.	1.00	0.176 0.25	10.2	0.76	0.32	0.77	3.60	0.	0.	5.45	0.912	3.	999	0
10101 STIG10	RESIDUA	10.	2.94	0.218 0.25	16.0	1.19	0.50	1.09	8.13	0.	-3.58	7.33	1.228	-6.	0	59
10101 STIG1S	RESIDUA	10.	1.00	0.200 0.25	10.0	0.74	0.32	0.76	3.49	0.	0.	5.32	0.891	3.	999	0
10101 STIG1S	RESIDUA	10.	1.72	0.228 0.25	12.2	0.91	0.39	0.89	5.11	0.	-1.34	5.96	0.998	0.	0	0
10101 DEADV3	RESIDUA	10.	1.00	0.265 0.25	13.3	0.98	0.42	0.82	3.21	0.	0.	5.43	0.909	1.	46	3
10101 DEADV3	RESIDUA	10.	1.73	0.302 0.25	16.6	1.23	0.52	0.94	4.62	0.	-1.34	5.98	1.002	-2.	5	14
10101 DEHTPM	RESIDUA	10.	1.00	0.351 0.25	13.0	0.97	0.41	0.84	2.83	0.	0.	5.05	0.846	3.	101	1
10101 DEHTPM	RESIDUA	10.	0.88	0.344 0.25	12.5	0.93	0.39	0.82	2.49	0.38	0.	5.01	0.839	3.	999	0
10101 DESOA3	DISTILL	10.	1.00	0.228 0.25	13.9	1.03	0.44	0.84	4.14	0.	0.	6.44	1.079	-2.	0	59
10101 DESOA3	DISTILL	10.	1.97	0.266 0.25	21.3	1.58	0.67	1.08	6.64	0.	-1.79	8.18	1.370	-11.	0	61
10101 DESOA3	RESIDUA	10.	1.00	0.228 0.25	13.9	1.03	0.44	0.84	3.37	0.	0.	5.68	0.952	0.	18	6
10101 DESOA3	RESIDUA	10.	1.97	0.266 0.25	21.3	1.58	0.67	1.08	5.41	0.	-1.79	6.96	1.165	-7.	0	87
10101 GTSOAD	DISTILL	10.	1.00	0.222 0.25	9.3	0.69	0.29	0.67	4.17	0.	0.	5.83	0.976	2.	0	0
10101 GTSOAD	DISTILL	10.	0.68	0.244 0.25	8.4	0.62	0.27	0.64	2.82	1.00	0.	5.34	0.895	4.	999	0
10101 GTRA08	DISTILL	10.	1.00	0.344 0.25	11.0	0.82	0.35	0.72	3.51	0.	0.	5.39	0.903	3.	999	0
10101 GTRA08	DISTILL	10.	1.07	0.351 0.25	11.3	0.84	0.36	0.73	3.65	0.	-0.13	5.44	0.911	2.	999	0
10101 GTRA12	DISTILL	10.	1.00	0.350 0.25	11.0	0.81	0.35	0.72	3.48	0.	0.	5.36	0.897	3.	999	0
10101 GTRA12	DISTILL	10.	1.06	0.355 0.25	11.2	0.83	0.35	0.72	3.59	0.	-0.10	5.39	0.903	2.	999	0
10101 GTRA16	DISTILL	10.	1.00	0.349 0.25	11.3	0.84	0.36	0.72	3.49	0.	0.	5.41	0.906	2.	999	0
10101 GTRA16	DISTILL	10.	0.99	0.348 0.25	11.3	0.84	0.36	0.72	3.46	0.02	0.	5.40	0.905	2.	999	0
10101 GTR208	DISTILL	10.	1.00	0.290 0.25	10.4	0.77	0.33	0.70	3.80	0.	0.	5.61	0.939	2.	999	0
10101 GTR208	DISTILL	10.	0.83	0.290 0.25	9.8	0.73	0.31	0.68	3.16	0.52	0.	5.40	0.905	3.	999	0
10101 GTR212	DISTILL	10.	1.00	0.311 0.25	10.7	0.79	0.34	0.71	3.69	0.	0.	5.53	0.926	2.	999	0
10101 GTR212	DISTILL	10.	0.89	0.309 0.25	10.3	0.76	0.32	0.69	3.29	0.33	0.	5.40	0.905	3.	999	0
10101 GTR216	DISTILL	10.	1.00	0.326 0.25	10.9	0.81	0.34	0.71	3.61	0.	0.	5.48	0.918	2.	999	0
10101 GTR216	DISTILL	10.	0.91	0.323 0.25	10.6	0.78	0.33	0.70	3.30	0.27	0.	5.38	0.902	3.	999	0
10101 GTRW08	DISTILL	10.	1.00	0.288 0.25	11.1	0.82	0.35	0.72	3.81	0.	0.	5.71	0.956	2.	999	0
10101 GTRW08	DISTILL	10.	1.29	0.308 0.25	12.2	0.90	0.38	0.76	4.46	0.	-0.53	5.98	1.001	0.	-6	0
10101 GTRW12	DISTILL	10.	1.00	0.306 0.25	11.1	0.82	0.35	0.72	3.72	0.	0.	5.61	0.940	2.	999	0
10101 GTRW12	DISTILL	10.	1.32	0.329 0.25	12.3	0.91	0.39	0.77	4.41	0.	-0.59	5.88	0.985	0.	999	0
10101 GTRW16	DISTILL	10.	1.00	0.309 0.25	11.4	0.84	0.36	0.73	3.70	0.	0.	5.63	0.943	2.	999	0
10101 GTRW16	DISTILL	10.	1.23	0.327 0.25	12.3	0.91	0.39	0.76	4.21	0.	-0.43	5.83	0.977	1.	999	0
10101 GTR308	DISTILL	10.	1.00	0.267 0.25	10.6	0.78	0.33	0.71	3.93	0.	0.	5.76	0.964	2.	999	0
10101 GTR308	DISTILL	10.	0.98	0.267 0.25	10.5	0.78	0.33	0.71	3.84	0.07	0.	5.73	0.959	2.	999	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
10101 GTR312	DISTILL	10.	1.00	0.312 0.25	10.7	0.79	0.34	0.71	3.69	0.	0.	5.53	0.925	2.	999	0
10101 GTR312	DISTILL	10.	1.09	0.319 0.25	11.0	0.81	0.35	0.72	3.88	0.	-0.17	5.60	0.937	2.	999	0
10101 GTR316	DISTILL	10.	1.00	0.310 0.25	11.0	0.81	0.35	0.72	3.70	0.	0.	5.58	0.934	2.	999	0
10101 GTR316	DISTILL	10.	1.07	0.316 0.25	11.3	0.83	0.35	0.73	3.86	0.	-0.14	5.64	0.944	2.	999	0
10101 FCPADS	DISTILL	10.	1.00	0.232 0.25	11.7	0.87	0.37	1.53	4.12	0.	0.	6.88	1.153	-3.	-60	0
10101 FCPADS	DISTILL	10.	2.42	0.279 0.25	19.6	1.45	0.62	3.02	7.76	0.	-2.63	10.22	1.712	-17.	0	59
10101 FCMCDS	DISTILL	10.	1.00	0.310 0.25	12.1	0.90	0.38	1.47	3.70	0.	0.	6.45	1.080	-1.	-62	0
10101 FCMCDS	DISTILL	10.	1.92	0.360 0.25	17.4	1.29	0.55	2.37	5.67	0.	-1.70	8.17	1.369	-9.	0	61
10102 ONOCGN	COAL-FG	30.	0.	0. 0.25	25.2	1.91	0.81	1.52	8.15	9.24	0.	21.64	1.000	0.	0	0
10102 STM141	RESIDUA	30.	0.99	0.246 0.25	19.0	1.44	0.61	0.98	17.50	0.11	0.	20.64	0.954	6.	999	0
10102 STM141	COAL-FG	30.	0.99	0.246 0.25	34.5	2.62	1.11	2.01	10.16	0.11	0.	16.02	0.740	13.	36	3
10102 STM141	COAL-AF	30.	0.99	0.246 0.25	29.8	2.26	0.96	1.95	10.16	0.11	0.	15.44	0.714	17.	69	2
10102 STM088	RESIDUA	30.	0.75	0.187 0.25	17.2	1.30	0.55	0.93	16.67	2.30	0.	21.75	1.005	4.	-6	0
10102 STM088	COAL-FG	30.	0.75	0.187 0.25	32.1	2.44	1.04	1.89	9.68	2.30	0.	17.35	0.802	10.	37	3
10102 STM068	COAL-AF	30.	0.75	0.187 0.25	23.4	1.77	0.75	1.75	9.68	2.30	0.	16.26	0.751	18.	999	0
10102 PFBSTM	COAL-PF	30.	1.00	0.245 0.25	42.4	3.22	1.37	3.12	10.24	0.	0.	17.94	0.829	3.	17	6
10102 PFBSTM	COAL-PF	30.	1.52	0.308 0.25	41.0	3.11	1.32	3.13	11.31	0.	-2.86	16.02	0.740	10.	24	4
10102 TISTMT	RESIDUA	30.	1.00	0.245 0.25	65.9	5.00	2.13	2.40	17.63	0.	0.	27.16	1.255	-37.	0	73
10102 TISTMT	RESIDUA	30.	1.99	0.349 0.25	101.7	7.72	3.28	3.11	21.18	0.	-5.48	29.82	1.378	-62.	0	96
10102 TISTNT	COAL	30.	1.00	0.245 0.25	91.4	6.94	2.95	3.78	10.24	0.	0.	23.91	1.105	-39.	2	22
10102 TISTMT	COAL	30.	1.99	0.349 0.25	128.5	9.75	4.14	4.45	12.30	0.	-5.48	25.16	1.163	-61.	2	22
10102 TIHRSG	RESIDUA	30.	0.85	0.171 0.25	84.9	6.29	2.67	2.52	17.92	1.42	0.	30.82	1.424	-56.	0	67
10102 TIHRSG	COAL	30.	0.85	0.171 0.25	108.6	8.24	3.50	3.72	10.41	1.42	0.	27.29	1.261	-58.	0	999
10102 STIRL	DISTILL	30.	1.00	0.180 0.25	28.9	2.14	0.91	1.43	23.45	0.	0.	27.93	1.291	-21.	0	56
10102 STIRL	DISTILL	30.	2.31	0.274 0.25	46.9	3.48	1.48	1.71	31.64	0.	-7.27	31.04	1.435	-39.	0	58
10102 STIRL	RESIDUA	30.	1.00	0.180 0.25	28.9	2.14	0.91	1.43	19.13	0.	0.	23.62	1.091	-8.	0	57
10102 STIRL	RESIDUA	30.	2.31	0.274 0.25	47.0	3.48	1.48	1.71	25.81	0.	-7.27	25.22	1.166	-21.	0	65
10102 STIRL	COAL	30.	1.00	0.180 0.25	54.2	4.02	1.71	2.85	11.11	0.	0.	19.69	0.910	-7.	10	9
10102 STIRL	COAL	30.	2.31	0.274 0.25	82.1	6.08	2.59	3.40	14.99	0.	-7.27	19.79	0.915	-21.	7	11
10102 HEGT85	COAL-AF	30.	1.00	0.100 0.25	75.4	5.72	2.43	3.34	12.20	0.	0.	23.70	1.095	-31.	1	25
10102 HEGT85	COAL-AF	30.	6.09	0.201 0.25	199.4	15.14	6.43	7.47	32.80	0.	-28.19	33.64	1.555	-121.	0	999
10102 HEGT60	COAL-AF	30.	1.00	0.107 0.25	72.4	5.49	2.34	3.27	12.11	0.	0.	23.20	1.072	-28.	2	21
10102 HEGT60	COAL-AF	30.	2.99	0.178 0.25	119.5	9.07	3.86	4.65	19.99	0.	-11.05	26.51	1.225	-61.	0	999
10102 HEGT00	COAL-AF	30.	1.00	0.104 0.25	67.1	5.09	2.17	3.13	12.14	0.	0.	22.53	1.041	-23.	3	17
10102 HEGT00	COAL-AF	30.	1.40	0.126 0.25	72.5	5.50	2.34	3.05	13.72	0.	-2.20	22.42	1.036	-25.	3	16
10102 FCMCCL	COAL	30.	1.00	0.213 0.25	64.3	5.00	2.13	3.52	10.66	0.	0.	21.31	0.985	-19.	5	13
10102 FCMCCL	COAL	30.	2.56	0.337 0.25	88.8	6.91	2.94	4.87	14.59	0.	-8.67	20.63	0.954	-29.	6	12
10102 FCSTCL	COAL	30.	1.00	0.222 0.25	62.3	4.84	2.06	3.43	10.55	0.	0.	20.88	0.965	-16.	6	12
10102 FCSTCL	COAL	30.	4.17	0.409 0.25	111.0	8.63	3.67	6.12	18.15	0.	-17.56	19.01	0.879	-35.	7	11
10102 IGGTST	COAL	30.	1.00	0.179 0.25	60.0	4.66	1.98	2.85	11.13	0.	0.	20.63	0.953	-14.	7	11
10102 IGGTST	COAL	30.	2.94	0.296 0.25	87.3	6.79	2.89	3.06	16.92	0.	-10.75	18.90	0.874	-22.	8	10
10102 GTSOAR	RESIDUA	30.	1.00	0.188 0.25	22.9	1.69	0.72	1.21	18.96	0.	0.	22.59	1.044	-2.	-23	0
10102 GTSOAR	RESIDUA	30.	2.62	0.299 0.25	33.8	2.51	1.07	1.30	26.96	0.	-9.00	22.83	1.055	-7.	0	65
10102 GTACO8	RESIDUA	30.	1.00	0.211 0.25	21.0	1.56	0.66	1.16	18.43	0.	0.	21.81	1.008	2.	-7	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
10102 GTAC08	RESIDUA	30.	2.11	0.308 0.25	25.3	1.88	0.80	1.07	23.32	0.	-6.17	20.89	0.965	3.	999	0
10102 GTAC12	RESIDUA	30.	1.00	0.211 0.25	21.7	1.61	0.68	1.18	18.43	0.	0.	21.89	1.012	1.	-9	0
10102 GTAC12	RESIDUA	30.	2.61	0.335 0.25	30.1	2.23	0.95	1.20	25.49	0.	-8.93	20.95	0.968	0.	15	6
10102 GTAC16	RESIDUA	30.	1.00	0.209 0.25	23.8	1.76	0.75	1.23	18.47	0.	0.	22.22	1.027	-1.	-21	0
10102 GTAC16	RESIDUA	30.	2.93	0.346 0.25	34.2	2.54	1.08	1.31	27.05	0.	-10.71	21.26	0.983	-3.	8	10
10102 GTWC16	RESIDUA	30.	1.00	0.186 0.25	23.7	1.75	0.74	1.23	19.00	0.	0.	22.73	1.051	-2.	-32	0
10102 GTWC16	RESIDUA	30.	3.12	0.315 0.25	33.0	2.45	1.04	1.30	29.54	0.	-11.77	22.56	1.042	-6.	0	69
10102 CC1626	RESIDUA	30.	1.00	0.186 0.25	27.1	2.06	0.88	1.43	19.01	0.	0.	23.37	1.080	-6.	0	56
10102 CC1626	RESIDUA	30.	5.22	0.362 0.25	48.3	3.66	1.56	1.89	39.96	0.	-23.37	23.69	1.095	-17.	0	223
10102 CC1622	RESIDUA	30.	1.00	0.195 0.25	27.1	2.06	0.87	1.42	18.80	0.	0.	23.15	1.070	-6.	0	56
10102 CC1622	RESIDUA	30.	4.70	0.370 0.25	49.1	3.73	1.58	1.86	36.41	0.	-20.51	23.07	1.066	-16.	0	999
10102 CC1222	RESIDUA	30.	1.00	0.197 0.25	26.5	2.01	0.85	1.41	18.76	0.	0.	23.03	1.064	-5.	0	56
10102 CC1222	RESIDUA	30.	4.68	0.373 0.25	46.3	3.52	1.49	1.82	36.14	0.	-20.42	22.54	1.042	-13.	0	26
10102 CC0822	RESIDUA	30.	1.00	0.211 0.25	26.2	1.99	0.84	1.40	18.43	0.	0.	22.66	1.047	-4.	0	56
10102 CC0822	RESIDUA	30.	3.75	0.377 0.25	36.3	2.75	1.17	1.53	30.54	0.	-15.27	20.72	0.958	-2.	11	8
10102 STIG15	RESIDUA	30.	1.00	0.069 0.25	27.5	2.04	0.87	1.59	21.74	0.	0.	26.24	1.213	-15.	0	56
10102 STIG15	RESIDUA	30.	117.39	0.171 0.25	861.5	63.81	27.13	51.42	917.88	0.	-645.14	415.10	19.184	-1628.	0	58
10102 STIG10	RESIDUA	30.	1.00	0.099 0.25	26.5	1.96	0.83	1.49	21.04	0.	0.	25.32	1.170	-12.	0	56
10102 STIG10	RESIDUA	30.	10.86	0.218 0.25	94.6	7.01	2.98	4.83	90.06	0.	-54.63	50.24	2.322	-122.	0	58
10102 STIG1S	RESIDUA	30.	1.00	0.112 0.25	26.0	1.92	0.82	1.48	20.72	0.	0.	24.95	1.153	-10.	0	56
10102 STIG1S	RESIDUA	30.	6.37	0.228 0.25	55.2	4.09	1.74	3.08	56.61	0.	-29.76	35.76	1.652	-58.	0	58
10102 DEADV3	RESIDUA	30.	1.00	0.149 0.25	35.9	2.66	1.13	1.60	19.87	0.	0.	25.26	1.167	-16.	0	59
10102 DEADV3	RESIDUA	30.	6.38	0.302 0.25	125.1	9.26	3.94	3.82	51.23	0.	-29.82	38.43	1.776	-99.	0	66
10102 DEHTPM	RESIDUA	30.	1.00	0.220 0.25	32.8	2.43	1.03	1.57	18.21	0.	0.	23.24	1.074	-8.	0	61
10102 DEHTPM	RESIDUA	30.	3.24	0.377 0.25	69.4	5.14	2.19	2.38	27.55	0.	-12.41	24.85	1.148	-30.	0	999
10102 DESOA3	DISTILL	30.	1.00	0.128 0.25	40.8	3.02	1.28	1.73	24.96	0.	0.	31.00	1.432	-36.	0	57
10102 DESOA3	DISTILL	30.	7.27	0.266 0.25	176.2	13.05	5.55	5.14	73.54	0.	-34.75	62.53	2.890	-198.	0	60
10102 DESOA3	RESIDUA	30.	1.00	0.128 0.25	40.8	3.02	1.28	1.73	20.36	0.	0.	26.40	1.220	-22.	0	59
10102 DESOA3	RESIDUA	30.	7.27	0.266 0.25	176.2	13.05	5.55	5.14	59.99	0.	-34.75	48.98	2.264	-156.	0	65
10102 GTSOAD	DISTILL	30.	1.00	0.203 0.25	20.4	1.51	0.64	1.15	22.82	0.	0.	26.12	1.207	-11.	-47	0
10102 GTSOAD	DISTILL	30.	2.50	0.317 0.25	26.3	1.95	0.83	1.10	31.23	0.	-8.30	26.81	1.239	-16.	0	55
10102 GTRA08	DISTILL	30.	1.00	0.193 0.25	28.0	2.08	0.88	1.34	23.09	0.	0.	27.39	1.266	-19.	0	56
10102 GTRA08	DISTILL	30.	3.96	0.351 0.25	45.0	3.33	1.42	1.62	40.47	0.	-16.39	30.45	1.407	-37.	0	58
10102 GTRA12	DISTILL	30.	1.00	0.196 0.25	28.3	2.09	0.89	1.35	23.00	0.	0.	27.33	1.263	-19.	0	56
10102 GTRA12	DISTILL	30.	3.90	0.355 0.25	45.7	3.39	1.44	1.63	39.79	0.	-16.08	30.17	1.394	-36.	0	58
10102 GTRA16	DISTILL	30.	1.00	0.197 0.25	26.1	1.93	0.82	1.29	22.98	0.	0.	27.02	1.249	-17.	0	55
10102 GTRA16	DISTILL	30.	3.67	0.350 0.25	46.1	3.42	1.45	1.64	38.37	0.	-14.78	30.09	1.391	-36.	0	58
10102 GTR208	DISTILL	30.	1.00	0.196 0.25	24.0	1.78	0.76	1.24	23.01	0.	0.	26.79	1.238	-15.	135	0
10102 GTR208	DISTILL	30.	3.07	0.329 0.25	36.8	2.72	1.16	1.39	35.03	0.	-11.47	28.82	1.332	-28.	0	57
10102 GTR212	DISTILL	30.	1.00	0.195 0.25	24.6	1.82	0.77	1.26	23.05	0.	0.	26.90	1.243	-16.	193	0
10102 GTR212	DISTILL	30.	3.29	0.335 0.25	39.5	2.93	1.24	1.46	36.46	0.	-12.72	29.37	1.357	-31.	0	57
10102 GTR216	DISTILL	30.	1.00	0.198 0.25	25.3	1.87	0.80	1.27	22.94	0.	0.	26.88	1.242	-16.	999	0
10102 GTR216	DISTILL	30.	3.37	0.344 0.25	42.2	3.13	1.33	1.53	36.54	0.	-13.15	29.37	1.358	-32.	0	58
10102 GTRW08	DISTILL	30.	1.00	0.162 0.25	27.9	2.07	0.88	1.35	23.99	0.	0.	28.28	1.307	-22.	0	56

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
10102 GTRW08	DISTILL	30.	4.75	0.308 0.25	47.1	3.49	1.48	1.70	49.41	0.	-20.78	35.30	1.632	-53.	0	57
10102 GTRW12	DISTILL	30.	1.60	0.172 0.25	27.9	2.07	0.88	1.34	23.71	0.	0.	28.00	1.294	-21.	0	56
10102 GTRW12	DISTILL	30.	4.87	0.329 0.25	47.7	3.53	1.50	1.72	48.89	0.	-21.47	34.18	1.579	-49.	0	57
10102 GTRW16	DISTILL	30.	1.00	0.173 0.25	28.5	2.11	0.90	1.36	23.66	0.	0.	28.02	1.295	-21.	0	56
10102 GTRW16	DISTILL	30.	4.56	0.327 0.25	47.5	3.51	1.49	1.70	46.60	0.	-19.71	33.60	1.553	-48.	0	57
10102 GTR308	DISTILL	30.	1.00	0.154 0.25	24.0	1.78	0.76	1.25	24.23	0.	0.	28.02	1.295	-19.	166	0
10102 GTR308	DISTILL	30.	3.61	0.272 0.25	36.9	2.74	1.16	1.42	42.57	0.	-14.49	33.40	1.544	-42.	0	56
10102 GTR312	DISTILL	30.	1.00	0.175 0.25	27.0	2.00	0.85	1.32	23.61	0.	0.	27.79	1.284	-20.	0	56
10102 GTR312	DISTILL	30.	4.03	0.319 0.25	41.1	3.04	1.29	1.53	42.99	0.	-16.77	32.09	1.483	-40.	0	57
10102 GTR316	DISTILL	30.	1.00	0.174 0.25	27.7	2.05	0.87	1.34	23.64	0.	0.	27.90	1.289	-20.	0	56
10102 GTR316	DISTILL	30.	3.97	0.316 0.25	42.3	3.13	1.33	1.56	42.73	0.	-16.44	32.31	1.493	-41.	0	57
10102 FCPADS	DISTILL	30.	1.00	0.130 0.25	34.1	2.53	1.07	4.02	24.90	0.	0.	32.52	1.503	-38.	0	57
10102 FCPADS	DISTILL	30.	8.95	0.279 0.25	154.0	11.41	4.85	28.02	86.04	0.	-44.08	86.23	3.985	-266.	0	59
10102 FCMCDS	DISTILL	30.	1.00	0.174 0.25	35.3	2.62	1.11	3.84	23.64	0.	0.	31.21	1.442	-35.	0	57
10102 FCMCDS	DISTILL	30.	7.08	0.360 0.25	132.4	9.80	4.17	21.00	62.78	0.	-33.72	64.04	2.959	-185.	0	60
20111 ONOCGN	RESIDUA	2.	0.	0. 0.28	1.6	0.12	0.05	0.19	0.22	0.16	0.	0.73	1.000	0.	0	0
20111 STM141	RESIDUA	2.	1.00	0.264 0.28	3.2	0.24	0.10	0.36	0.28	0.	0.	0.98	1.342	-2.	0	77
20111 STM141	RESIDUA	2.	1.09	0.277 0.28	3.0	0.23	0.10	0.29	0.28	0.	-0.01	0.89	1.226	-1.	0	114
20111 STM141	COAL-FG	2.	1.00	0.264 0.28	5.6	0.43	0.18	0.57	0.16	0.	0.	1.34	1.842	-4.	0	77
20111 STM141	COAL-FG	2.	1.09	0.277 0.28	5.2	0.39	0.17	0.46	0.16	0.	-0.01	1.17	1.614	-3.	0	92
20111 STM141	COAL-AF	2.	1.00	0.264 0.28	5.1	0.39	0.17	0.51	0.16	0.	0.	1.22	1.683	-3.	0	82
20111 STM141	COAL-AF	2.	1.09	0.277 0.28	4.6	0.35	0.15	0.40	0.16	0.	-0.01	1.05	1.441	-2.	0	141
20111 STM088	RESIDUA	2.	0.86	0.227 0.28	2.6	0.20	0.08	0.28	0.27	0.02	0.	0.85	1.166	-1.	0	114
20111 STM088	COAL-FG	2.	0.86	0.227 0.28	4.7	0.36	0.15	0.44	0.15	0.02	0.	1.13	1.553	-3.	0	89
20111 STM088	COAL-AF	2.	0.86	0.227 0.28	4.3	0.33	0.14	0.38	0.15	0.02	0.	1.03	1.411	-2.	0	125
20111 PFBSTM	COAL-PF	2.	1.00	0.261 0.28	7.1	0.54	0.23	0.61	0.16	0.	0.	1.54	2.114	-5.	0	76
20111 PFBSTM	COAL-PF	2.	1.58	0.332 0.28	6.8	0.52	0.22	0.47	0.18	0.	-0.05	1.34	1.840	-4.	0	95
20111 TISTMT	RESIDUA	2.	1.00	0.260 0.28	8.7	0.66	0.28	0.53	0.28	0.	0.	1.74	2.392	-7.	0	74
20111 TISTMT	RESIDUA	2.	2.03	0.368 0.28	13.0	0.99	0.42	0.56	0.34	0.	-0.10	2.21	3.034	-10.	0	78
20111 TISTMT	COAL	2.	1.00	0.260 0.28	12.2	0.93	0.39	0.79	0.16	0.	0.	2.27	3.115	-10.	0	74
20111 TISTMT	COAL	2.	2.03	0.368 0.28	16.5	1.26	0.53	0.77	0.20	0.	-0.10	2.65	3.648	-13.	0	79
20111 TIHRSG	RESIDUA	2.	0.75	0.172 0.28	10.2	0.76	0.32	0.40	0.27	0.04	0.	1.79	2.455	-7.	0	78
20111 TIHRSG	COAL	2.	0.75	0.172 0.28	13.2	1.00	0.43	0.57	0.16	0.04	0.	2.20	3.019	-10.	0	79
20111 STIRL	DISTILL	2.	1.00	0.214 0.28	2.7	0.20	0.08	0.34	0.36	0.	0.	0.98	1.345	-1.	0	65
20111 STIRL	DISTILL	2.	2.42	0.323 0.28	3.3	0.24	0.10	0.28	0.50	0.	-0.13	0.98	1.354	-2.	0	71
20111 STIRL	RESIDUA	2.	1.00	0.214 0.28	2.7	0.20	0.08	0.34	0.29	0.	0.	0.91	1.254	-1.	0	74
20111 STIRL	RESIDUA	2.	2.42	0.323 0.28	3.3	0.24	0.10	0.28	0.40	0.	-0.13	0.89	1.229	-1.	0	154
20111 STIRL	COAL	2.	1.00	0.214 0.28	5.7	0.42	0.18	0.57	0.17	0.	0.	1.34	1.847	-4.	0	76
20111 STIRL	COAL	2.	2.42	0.323 0.28	5.8	0.43	0.18	0.45	0.24	0.	-0.13	1.17	1.606	-3.	0	128
20111 HEGT85	COAL-AF	2.	1.00	0.188 0.28	10.8	0.82	0.35	0.62	0.18	0.	0.	1.97	2.706	-8.	0	77
20111 HEGT85	COAL-AF	2.	3.10	0.308 0.28	17.8	1.35	0.57	0.65	0.28	0.	-0.20	2.66	3.660	-14.	0	83
20111 HEGT60	COAL-AF	2.	1.00	0.134 0.28	10.6	0.81	0.34	0.62	0.19	0.	0.	1.96	2.690	-8.	0	77
20111 HEGT60	COAL-AF	2.	2.47	0.204 0.28	15.2	1.15	0.49	0.59	0.28	0.	-0.14	2.37	3.257	-12.	0	82
20111 HEGT00	COAL-AF	2.	1.00	0.123 0.28	9.5	0.72	0.31	0.55	0.19	0.	0.	1.77	2.431	-7.	0	79

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********																
20111	HEGTOO	COAL-AF	2.	1.23	0.138 0.28	9.6	0.73	0.31	0.42	0.21	0.	-0.02	1.64	2.259	-7.	0 89
20111	FCMCCL	COAL	2.	1.00	0.227 0.28	9.3	0.72	0.31	0.61	0.17	0.	0.	1.81	2.487	-7.	0 78
20111	FCMCCL	COAL	2.	2.32	0.338 0.28	11.7	0.91	0.39	0.54	0.22	0.	-0.12	1.94	2.663	-9.	0 88
20111	FCSTCL	COAL	2.	1.00	0.236 0.28	9.1	0.70	0.30	0.67	0.17	0.	0.	1.83	2.521	-7.	0 75
20111	FCSTCL	COAL	2.	4.09	0.419 0.28	15.2	1.18	0.50	0.73	0.29	0.	-0.29	2.41	3.318	-12.	0 85
20111	IGGTST	COAL	2.	1.00	0.193 0.28	9.5	0.74	0.31	0.73	0.18	0.	0.	1.96	2.689	-8.	0 74
20111	IGGTST	COAL	2.	2.93	0.312 0.28	13.2	1.03	0.44	0.71	0.27	0.	-0.18	2.26	3.112	-11.	0 80
20111	GTSOAR	RESIDUA	2.	1.00	0.206 0.28	3.3	0.25	0.11	0.33	0.30	0.	0.	0.98	1.347	-2.	0 77
20111	GTSOAR	RESIDUA	2.	2.31	0.306 0.28	4.0	0.30	0.13	0.26	0.40	0.	-0.12	0.97	1.328	-2.	0 123
20111	GTAC08	RESIDUA	2.	1.00	0.222 0.28	2.9	0.22	0.09	0.32	0.29	0.	0.	0.92	1.263	-1.	0 81
20111	GTAC08	RESIDUA	2.	1.92	0.307 0.28	3.1	0.23	0.10	0.23	0.36	0.	-0.09	0.84	1.154	-1.	0 999
20111	GTAC12	RESIDUA	2.	1.00	0.226 0.28	3.0	0.22	0.09	0.32	0.29	0.	0.	0.92	1.264	-1.	0 81
20111	GTAC12	RESIDUA	2.	2.34	0.337 0.28	3.5	0.26	0.11	0.25	0.39	0.	-0.13	0.87	1.200	-1.	0 999
20111	GTAC16	RESIDUA	2.	1.00	0.225 0.28	3.0	0.23	0.10	0.32	0.29	0.	0.	0.93	1.282	-1.	0 80
20111	GTAC16	RESIDUA	2.	2.61	0.350 0.28	3.8	0.28	0.12	0.26	0.41	0.	-0.15	0.92	1.265	-2.	0 955
20111	GTWC16	RESIDUA	2.	1.00	0.197 0.28	3.3	0.24	0.10	0.33	0.30	0.	0.	0.98	1.342	-2.	0 76
20111	GTWC16	RESIDUA	2.	2.83	0.315 0.28	4.3	0.32	0.14	0.28	0.45	0.	-0.17	1.02	1.395	-2.	0 101
20111	CC1626	RESIDUA	2.	1.00	0.199 0.28	3.4	0.26	0.11	0.40	0.30	0.	0.	1.07	1.465	-2.	0 70
20111	CC1626	RESIDUA	2.	5.08	0.371 0.28	6.3	0.48	0.20	0.44	0.64	0.	-0.38	1.38	1.893	-4.	0 77
20111	CC1622	RESIDUA	2.	1.00	0.209 0.28	3.2	0.24	0.10	0.39	0.30	0.	0.	1.04	1.425	-2.	0 71
20111	CC1622	RESIDUA	2.	4.59	0.380 0.28	5.6	0.43	0.18	0.41	0.58	0.	-0.34	1.27	1.744	-4.	0 80
20111	CC1222	RESIDUA	2.	1.00	0.210 0.28	3.1	0.24	0.10	0.39	0.30	0.	0.	1.03	1.409	-2.	0 70
20111	CC1222	RESIDUA	2.	4.58	0.383 0.28	5.4	0.41	0.17	0.41	0.58	0.	-0.34	1.23	1.696	-3.	0 81
20111	CC0822	RESIDUA	2.	1.00	0.225 0.28	3.3	0.25	0.11	0.39	0.29	0.	0.	1.04	1.423	-2.	0 71
20111	CC0822	RESIDUA	2.	3.70	0.389 0.28	4.9	0.37	0.16	0.38	0.49	0.	-0.25	1.15	1.577	-3.	0 86
20111	STIG15	RESIDUA	2.	1.00	0.073 0.28	3.5	0.26	0.11	0.35	0.35	0.	0.	1.06	1.464	-2.	0 69
20111	STIG15	RESIDUA	2.	106.26	0.171 0.28	65.0	4.81	2.05	2.64	14.10	0.	-9.90	13.70	18.829	-70.	0 63
20111	STIG10	RESIDUA	2.	1.00	0.105 0.28	3.3	0.25	0.10	0.34	0.33	0.	0.	1.03	1.412	-2.	0 70
20111	STIG10	RESIDUA	2.	9.83	0.218 0.28	8.9	0.66	0.28	0.50	1.38	0.	-0.83	2.00	2.746	-7.	0 66
20111	STIG1S	RESIDUA	2.	1.00	0.119 0.28	3.2	0.24	0.10	0.34	0.33	0.	0.	1.01	1.391	-2.	0 70
20111	STIG1S	RESIDUA	2.	5.77	0.228 0.28	5.1	0.46	0.19	0.39	0.87	0.	-0.45	1.46	2.001	-4.	0 69
20111	DEADV3	RESIDUA	2.	1.00	0.201 0.28	4.4	0.33	0.14	0.38	0.30	0.	0.	1.14	1.573	-3.	0 74
20111	DEADV3	RESIDUA	2.	4.04	0.355 0.28	7.1	0.52	0.22	0.40	0.55	0.	-0.29	1.41	1.935	-5.	0 80
20111	DEHTPM	RESIDUA	2.	1.00	0.244 0.28	4.3	0.32	0.14	0.40	0.28	0.	0.	1.14	1.563	-3.	0 74
20111	DEHTPM	RESIDUA	2.	3.01	0.397 0.28	6.0	0.44	0.19	0.38	0.42	0.	-0.19	1.24	1.704	-4.	0 88
20111	DESOA3	DISTILL	2.	1.00	0.188 0.28	3.3	0.25	0.10	0.35	0.37	0.	0.	1.08	1.478	-2.	0 66
20111	DESOA3	DISTILL	2.	4.13	0.334 0.28	7.2	0.53	0.23	0.40	0.71	0.	-0.29	1.57	2.159	-5.	0 70
20111	DESOA3	RESIDUA	2.	1.00	0.188 0.28	3.3	0.25	0.10	0.35	0.30	0.	0.	1.01	1.384	-2.	0 73
20111	DESOA3	RESIDUA	2.	4.13	0.334 0.28	7.2	0.53	0.23	0.40	0.58	0.	-0.29	1.44	1.980	-5.	0 78
20111	GTSOAD	DISTILL	2.	1.00	0.219 0.28	2.9	0.21	0.09	0.32	0.36	0.	0.	0.98	1.342	-1.	0 67
20111	GTSOAD	DISTILL	2.	2.22	0.321 0.28	3.2	0.24	0.10	0.24	0.47	0.	-0.12	0.93	1.280	-1.	0 77
20111	GTRA08	DISTILL	2.	1.00	0.212 0.28	3.5	0.26	0.11	0.33	0.36	0.	0.	1.07	1.467	-2.	0 68
20111	GTRA08	DISTILL	2.	3.44	0.358 0.28	5.2	0.39	0.16	0.30	0.60	0.	-0.23	1.22	1.682	-3.	0 73
20111	GTRA12	DISTILL	2.	1.00	0.214 0.28	3.4	0.25	0.11	0.33	0.36	0.	0.	1.05	1.448	-2.	0 68

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK	
20111 GTRA12	DISTILL	2.	3.41	0.362	0.28	5.1	0.38	0.16	0.30	0.59	0.	-0.23	1.21	1.660	-3.	0	74
20111 GTRA16	DISTILL	2.	1.00	0.215	0.28	3.5	0.26	0.11	0.33	0.36	0.	0.	1.07	1.468	-2.	0	68
20111 GTRA16	DISTILL	2.	3.22	0.356	0.28	5.2	0.39	0.16	0.30	0.57	0.	-0.21	1.22	1.673	-3.	0	74
20111 GTR208	DISTILL	2.	1.00	0.213	0.28	3.3	0.24	0.10	0.33	0.36	0.	0.	1.03	1.422	-2.	0	68
20111 GTR208	DISTILL	2.	2.71	0.335	0.28	4.2	0.31	0.13	0.27	0.52	0.	-0.16	1.08	1.484	-2.	0	74
20111 GTR212	DISTILL	2.	1.00	0.211	0.28	3.4	0.25	0.11	0.33	0.36	0.	0.	1.05	1.438	-2.	0	68
20111 GTR212	DISTILL	2.	2.91	0.340	0.28	4.5	0.34	0.14	0.28	0.55	0.	-0.18	1.13	1.550	-3.	0	74
20111 GTR216	DISTILL	2.	1.00	0.215	0.28	3.4	0.25	0.11	0.33	0.36	0.	0.	1.05	1.441	-2.	0	68
20111 GTR216	DISTILL	2.	2.98	0.349	0.28	4.7	0.35	0.15	0.29	0.55	0.	-0.19	1.15	1.575	-3.	0	74
20111 GTRW08	DISTILL	2.	1.00	0.177	0.28	3.6	0.27	0.11	0.34	0.38	0.	0.	1.10	1.508	-2.	0	67
20111 GTRW08	DISTILL	2.	4.14	0.314	0.28	5.9	0.44	0.19	0.34	0.73	0.	-0.30	1.40	1.919	-4.	0	69
20111 GTRW12	DISTILL	2.	1.00	0.186	0.28	3.6	0.27	0.11	0.34	0.37	0.	0.	1.09	1.500	-2.	0	67
20111 GTRW12	DISTILL	2.	4.27	0.334	0.28	6.0	0.45	0.19	0.34	0.73	0.	-0.31	1.39	1.913	-4.	0	70
20111 GTRW16	DISTILL	2.	1.00	0.188	0.28	3.7	0.27	0.12	0.34	0.37	0.	0.	1.10	1.515	-2.	0	68
20111 GTRW16	DISTILL	2.	4.01	0.331	0.28	6.0	0.45	0.19	0.34	0.70	0.	-0.28	1.39	1.905	-4.	0	70
20111 GTR308	DISTILL	2.	1.00	0.172	0.28	3.3	0.25	0.10	0.33	0.38	0.	0.	1.07	1.464	-2.	0	66
20111 GTR308	DISTILL	2.	3.11	0.282	0.28	4.6	0.34	0.15	0.29	0.62	0.	-0.20	1.21	1.658	-3.	0	68
20111 GTR312	DISTILL	2.	1.00	0.189	0.28	3.4	0.25	0.11	0.33	0.37	0.	0.	1.07	1.469	-2.	0	67
20111 GTR312	DISTILL	2.	3.57	0.323	0.28	5.1	0.38	0.16	0.31	0.65	0.	-0.24	1.25	1.720	-3.	0	70
20111 GTR316	DISTILL	2.	1.00	0.188	0.28	3.5	0.26	0.11	0.34	0.37	0.	0.	1.08	1.490	-2.	0	67
20111 GTR316	DISTILL	2.	3.52	0.320	0.28	5.3	0.39	0.17	0.31	0.64	0.	-0.24	1.28	1.759	-3.	0	70
20111 FCPADS	DISTILL	2.	1.00	0.190	0.28	3.0	0.22	0.09	0.32	0.37	0.	0.	1.00	1.379	-2.	0	67
20111 FCPADS	DISTILL	2.	4.67	0.348	0.28	6.0	0.44	0.19	0.46	0.76	0.	-0.35	1.50	2.064	-5.	0	67
20111 FCNCDS	DISTILL	2.	1.00	0.184	0.28	3.2	0.24	0.10	0.32	0.37	0.	0.	1.03	1.411	-2.	0	67
20111 FCNCDS	DISTILL	2.	6.41	0.360	0.28	8.6	0.65	0.28	0.59	0.96	0.	-0.51	1.97	2.711	-7.	0	67
20261 ONOCON	RESIDUA	1.	0.	0.	0.41	1.0	0.07	0.03	0.14	0.10	0.11	0.	0.45	1.000	0.	0	0
20261 STM141	RESIDUA	1.	0.74	0.239	0.41	1.9	0.14	0.06	0.22	0.13	0.03	0.	0.58	1.295	-1.	0	80
20261 STM141	COAL-FG	1.	0.74	0.239	0.41	3.0	0.23	0.10	0.34	0.07	0.03	0.	0.77	1.719	-2.	0	76
20261 STM141	COAL-AF	1.	0.74	0.239	0.41	2.9	0.22	0.09	0.29	0.07	0.03	0.	0.71	1.589	-2.	0	83
20261 STM088	RESIDUA	1.	0.58	0.189	0.41	1.6	0.12	0.05	0.21	0.12	0.04	0.	0.55	1.224	-1.	0	76
20261 STM088	COAL-FG	1.	0.58	0.189	0.41	2.8	0.21	0.09	0.33	0.07	0.04	0.	0.74	1.653	-2.	0	74
20261 STM088	COAL-AF	1.	0.58	0.189	0.41	2.7	0.21	0.09	0.28	0.07	0.04	0.	0.69	1.551	-2.	0	81
20261 PFBSTM	COAL-PF	1.	1.00	0.321	0.41	4.4	0.34	0.14	0.42	0.08	0.	0.	0.98	2.190	-3.	0	74
20261 PFBSTM	COAL-PF	1.	1.07	0.332	0.41	4.2	0.32	0.14	0.34	0.08	0.	-0.00	0.87	1.952	-3.	0	82
20261 TISTMT	RESIDUA	1.	1.00	0.319	0.41	6.2	0.47	0.20	0.40	0.14	0.	0.	1.21	2.718	-5.	0	73
20261 TISTMT	RESIDUA	1.	1.38	0.368	0.41	7.4	0.56	0.24	0.37	0.16	0.	-0.02	1.30	2.908	-6.	0	76
20261 TISTMT	COAL	1.	1.00	0.319	0.41	8.4	0.64	0.27	0.59	0.08	0.	0.	1.57	3.523	-7.	0	73
20261 TISTMT	COAL	1.	1.38	0.368	0.41	9.4	0.71	0.30	0.51	0.09	0.	-0.02	1.59	3.564	-8.	0	76
20261 TIHRSG	RESIDUA	1.	0.51	0.143	0.41	5.8	0.43	0.18	0.25	0.12	0.05	0.	1.04	2.326	-4.	0	78
20261 TIHRSG	COAL	1.	0.51	0.143	0.41	7.5	0.57	0.24	0.37	0.07	0.05	0.	1.30	2.914	-6.	0	77
20261 STIRL	DISTILL	1.	1.00	0.268	0.41	1.6	0.12	0.05	0.25	0.18	0.	0.	0.60	1.352	-1.	0	66
20261 STIRL	DISTILL	1.	1.68	0.332	0.41	1.6	0.12	0.05	0.19	0.23	0.	-0.04	0.54	1.208	-1.	0	75
20261 STIRL	RESIDUA	1.	1.00	0.268	0.41	1.6	0.12	0.05	0.25	0.15	0.	0.	0.57	1.276	-1.	0	72
20261 STIRL	RESIDUA	1.	1.68	0.332	0.41	1.6	0.12	0.05	0.19	0.19	0.	-0.04	0.50	1.115	-0.	0	999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
20261 STIRL	COAL	1.	1.00	0.268 0.41	3.5	0.26	0.11	0.42	0.09	0.	0.	0.87	1.951	-3.	0	72
20261 STIRL	COAL	1.	1.68	0.332 0.41	3.2	0.23	0.10	0.31	0.11	0.	-0.04	0.71	1.578	-2.	0	97
20261 HEGT85	COAL-AF	1.	1.00	0.247 0.41	7.5	0.57	0.24	0.45	0.09	0.	0.	1.35	3.022	-6.	0	75
20261 HEGT85	COAL-AF	1.	1.96	0.323 0.41	9.8	0.74	0.32	0.39	0.12	0.	-0.06	1.51	3.379	-8.	0	82
20261 HEGT60	COAL-AF	1.	1.00	0.164 0.41	7.3	0.56	0.24	0.45	0.10	0.	0.	1.34	3.007	-6.	0	75
20261 HEGT60	COAL-AF	1.	1.68	0.204 0.41	8.8	0.67	0.28	0.37	0.13	0.	-0.04	1.41	3.149	-7.	0	81
20261 HEGT00	COAL-AF	1.	0.84	0.126 0.41	5.5	0.42	0.18	0.27	0.09	0.02	0.	0.99	2.204	-4.	0	85
20261 FCMCCL	COAL	1.	1.00	0.278 0.41	6.2	0.48	0.21	0.44	0.09	0.	0.	1.22	2.720	-5.	0	75
20261 FCMCCL	COAL	1.	1.57	0.338 0.41	6.8	0.53	0.23	0.35	0.10	0.	-0.04	1.17	2.616	-5.	0	84
20261 FCSTCL	COAL	1.	1.00	0.290 0.41	6.1	0.48	0.20	0.51	0.08	0.	0.	1.27	2.844	-5.	0	73
20261 FCSTCL	COAL	1.	2.78	0.419 0.41	8.8	0.69	0.29	0.48	0.13	0.	-0.11	1.48	3.315	-7.	0	80
20261 IGGTST	COAL	1.	1.00	0.237 0.41	6.6	0.51	0.22	0.56	0.09	0.	0.	1.38	3.090	-6.	0	71
20261 IGGTST	COAL	1.	1.99	0.312 0.41	8.0	0.62	0.26	0.50	0.12	0.	-0.06	1.44	3.230	-7.	0	76
20261 GTSOAR	RESIDUA	1.	1.00	0.253 0.41	2.2	0.16	0.07	0.24	0.15	0.	0.	0.63	1.417	-1.	0	75
20261 GTSOAR	RESIDUA	1.	1.57	0.306 0.41	2.3	0.17	0.07	0.18	0.18	0.	-0.04	0.58	1.294	-1.	0	144
20261 GTAC08	RESIDUA	1.	1.00	0.272 0.41	1.9	0.14	0.06	0.23	0.15	0.	0.	0.57	1.286	-1.	0	80
20261 GTAC08	RESIDUA	1.	1.31	0.307 0.41	1.8	0.13	0.06	0.16	0.17	0.	-0.02	0.50	1.119	-1.	0	999
20261 GTAC12	RESIDUA	1.	1.00	0.277 0.41	1.9	0.14	0.06	0.24	0.15	0.	0.	0.59	1.309	-1.	0	78
20261 GTAC12	RESIDUA	1.	1.59	0.337 0.41	2.0	0.15	0.06	0.17	0.18	0.	-0.04	0.52	1.157	-1.	0	999
20261 GTAC16	RESIDUA	1.	1.00	0.276 0.41	2.0	0.15	0.06	0.24	0.15	0.	0.	0.60	1.337	-1.	0	77
20261 GTAC16	RESIDUA	1.	1.77	0.350 0.41	2.2	0.16	0.07	0.18	0.19	0.	-0.05	0.54	1.216	-1.	0	999
20261 GTWC16	RESIDUA	1.	1.00	0.242 0.41	2.2	0.16	0.07	0.25	0.16	0.	0.	0.64	1.422	-1.	0	74
20261 GTWC16	RESIDUA	1.	1.92	0.315 0.41	2.5	0.19	0.08	0.19	0.21	0.	-0.06	0.61	1.354	-1.	0	107
20261 CC1626	RESIDUA	1.	1.00	0.245 0.41	2.3	0.18	0.08	0.32	0.16	0.	0.	0.72	1.617	-2.	0	68
20261 CC1626	RESIDUA	1.	3.45	0.371 0.41	3.7	0.28	0.12	0.31	0.29	0.	-0.16	0.85	1.897	-3.	0	74
20261 CC1622	RESIDUA	1.	1.00	0.256 0.41	2.2	0.16	0.07	0.31	0.15	0.	0.	0.70	1.563	-1.	0	68
20261 CC1622	RESIDUA	1.	3.11	0.380 0.41	3.2	0.24	0.10	0.30	0.27	0.	-0.13	0.77	1.733	-2.	0	76
20261 CC1222	RESIDUA	1.	1.00	0.258 0.41	2.1	0.16	0.07	0.31	0.15	0.	0.	0.69	1.542	-1.	0	68
20261 CC1222	RESIDUA	1.	3.11	0.383 0.41	3.1	0.23	0.10	0.29	0.27	0.	-0.13	0.75	1.689	-2.	0	76
20261 CC0822	RESIDUA	1.	1.00	0.276 0.41	2.2	0.17	0.07	0.31	0.15	0.	0.	0.70	1.561	-1.	0	69
20261 CC0822	RESIDUA	1.	2.51	0.389 0.41	2.9	0.22	0.09	0.28	0.22	0.	-0.10	0.71	1.596	-2.	0	79
20261 STIG15	RESIDUA	1.	1.00	0.090 0.41	2.4	0.18	0.08	0.28	0.19	0.	0.	0.72	1.608	-2.	0	68
20261 STIG15	RESIDUA	1.	72.13	0.171 0.41	29.4	2.18	0.93	1.38	6.46	0.	-4.52	6.43	14.377	-32.	0	63
20261 STIG10	RESIDUA	1.	1.00	0.129 0.41	2.3	0.17	0.07	0.27	0.18	0.	0.	0.69	1.538	-1.	0	69
20261 STIG10	RESIDUA	1.	6.67	0.218 0.41	5.1	0.38	0.16	0.33	0.63	0.	-0.36	1.15	2.568	-4.	0	67
20261 STIG1S	RESIDUA	1.	1.00	0.146 0.41	2.2	0.16	0.07	0.26	0.18	0.	0.	0.67	1.506	-1.	0	69
20261 STIG1S	RESIDUA	1.	3.91	0.228 0.41	3.6	0.26	0.11	0.26	0.40	0.	-0.19	0.85	1.902	-2.	0	70
20261 DEADV3	RESIDUA	1.	1.00	0.257 0.41	3.1	0.23	0.10	0.29	0.15	0.	0.	0.77	1.722	-2.	0	73
20261 DEADV3	RESIDUA	1.	2.58	0.365 0.41	4.2	0.31	0.13	0.27	0.24	0.	-0.10	0.85	1.892	-3.	0	80
20261 DEHTPM	RESIDUA	1.	1.00	0.299 0.41	3.0	0.22	0.10	0.31	0.14	0.	0.	0.77	1.720	-2.	0	72
20261 DEHTPM	RESIDUA	1.	2.04	0.397 0.41	3.7	0.27	0.12	0.27	0.19	0.	-0.07	0.78	1.744	-2.	0	83
20261 DESOA3	DISTILL	1.	1.00	0.244 0.41	2.0	0.15	0.06	0.27	0.19	0.	0.	0.67	1.504	-1.	0	66
20261 DESOA3	DISTILL	1.	2.60	0.346 0.41	3.2	0.23	0.10	0.24	0.30	0.	-0.10	0.78	1.737	-2.	0	71
20261 DESOA3	RESIDUA	1.	1.00	0.244 0.41	2.0	0.15	0.06	0.27	0.16	0.	0.	0.64	1.426	-1.	0	71

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM		SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
20261	DESOA3	RESIDUA	1.	2.60	0.346	0.41	3.2	0.23	0.10	0.24	0.25	0.	-0.10	0.72	1.612	-2.	0	81
20261	GTSOAD	DISTILL	1.	1.00	0.269	0.41	1.8	0.14	0.06	0.23	0.18	0.	0.	0.61	1.367	-1.	0	68
20261	GTSOAD	DISTILL	1.	1.51	0.321	0.41	1.8	0.14	0.06	0.17	0.22	0.	-0.03	0.54	1.215	-1.	0	89
20261	GTRA08	DISTILL	1.	1.00	0.260	0.41	2.4	0.18	0.08	0.26	0.19	0.	0.	0.69	1.554	-1.	0	69
20261	GTRA08	DISTILL	1.	2.33	0.358	0.41	3.1	0.23	0.10	0.21	0.27	0.	-0.08	0.72	1.609	-2.	0	76
20261	GTRA12	DISTILL	1.	1.00	0.263	0.41	2.3	0.17	0.07	0.25	0.19	0.	0.	0.68	1.525	-1.	0	69
20261	GTRA12	DISTILL	1.	2.31	0.362	0.41	3.0	0.22	0.09	0.20	0.27	0.	-0.08	0.70	1.573	-2.	0	76
20261	GTRA16	DISTILL	1.	1.00	0.263	0.41	2.4	0.18	0.08	0.25	0.19	0.	0.	0.69	1.547	-1.	0	69
20261	GTRA16	DISTILL	1.	2.18	0.356	0.41	3.0	0.22	0.09	0.20	0.26	0.	-0.08	0.71	1.585	-2.	0	76
20261	GTR208	DISTILL	1.	1.00	0.262	0.41	2.2	0.16	0.07	0.25	0.19	0.	0.	0.66	1.483	-1.	0	69
20261	GTR208	DISTILL	1.	1.84	0.335	0.41	2.4	0.18	0.08	0.19	0.24	0.	-0.05	0.63	1.413	-1.	0	78
20261	GTR212	DISTILL	1.	1.00	0.259	0.41	2.2	0.17	0.07	0.25	0.19	0.	0.	0.67	1.506	-1.	0	69
20261	GTR212	DISTILL	1.	1.98	0.340	0.41	2.6	0.19	0.08	0.19	0.25	0.	-0.06	0.66	1.474	-1.	0	77
20261	GTR216	DISTILL	1.	1.00	0.264	0.41	2.3	0.17	0.07	0.25	0.19	0.	0.	0.68	1.511	-1.	0	69
20261	GTR216	DISTILL	1.	2.02	0.349	0.41	2.7	0.20	0.09	0.20	0.25	0.	-0.06	0.67	1.492	-2.	0	77
20261	GTRW08	DISTILL	1.	1.00	0.217	0.41	2.5	0.18	0.08	0.26	0.20	0.	0.	0.72	1.608	-2.	0	68
20261	GTRW08	DISTILL	1.	2.81	0.314	0.41	3.5	0.26	0.11	0.23	0.34	0.	-0.11	0.82	1.826	-2.	0	71
20261	GTRW12	DISTILL	1.	1.00	0.229	0.41	2.5	0.18	0.08	0.26	0.19	0.	0.	0.71	1.599	-2.	0	68
20261	GTRW12	DISTILL	1.	2.90	0.334	0.41	3.5	0.26	0.11	0.23	0.33	0.	-0.12	0.82	1.825	-2.	0	71
20261	GTRW16	DISTILL	1.	1.00	0.230	0.41	2.5	0.19	0.08	0.26	0.19	0.	0.	0.72	1.617	-2.	0	68
20261	GTRW16	DISTILL	1.	2.72	0.331	0.41	3.6	0.26	0.11	0.23	0.32	0.	-0.11	0.81	1.820	-2.	0	72
20261	GTR308	DISTILL	1.	1.00	0.211	0.41	2.2	0.17	0.07	0.25	0.20	0.	0.	0.69	1.539	-1.	0	67
20261	GTR308	DISTILL	1.	2.11	0.282	0.41	2.7	0.20	0.08	0.20	0.29	0.	-0.07	0.70	1.565	-2.	0	71
20261	GTR312	DISTILL	1.	1.00	0.232	0.41	2.3	0.17	0.07	0.26	0.19	0.	0.	0.70	1.556	-1.	0	68
20261	GTR312	DISTILL	1.	2.43	0.323	0.41	3.0	0.22	0.09	0.21	0.30	0.	-0.09	0.73	1.640	-2.	0	72
20261	GTR316	DISTILL	1.	1.00	0.230	0.41	2.4	0.18	0.08	0.26	0.19	0.	0.	0.71	1.581	-2.	0	68
20261	GTR316	DISTILL	1.	2.39	0.320	0.41	3.1	0.23	0.10	0.21	0.30	0.	-0.09	0.75	1.678	-2.	0	72
20261	FCPADS	DISTILL	1.	1.00	0.250	0.41	1.8	0.14	0.06	0.23	0.19	0.	0.	0.61	1.367	-1.	0	68
20261	FCPADS	DISTILL	1.	2.86	0.364	0.41	2.7	0.20	0.09	0.23	0.31	0.	-0.12	0.71	1.583	-2.	0	71
20261	FCMCDS	DISTILL	1.	1.00	0.226	0.41	2.0	0.15	0.06	0.23	0.19	0.	0.	0.64	1.432	-1.	0	68
20261	FCMCDS	DISTILL	1.	4.35	0.360	0.41	4.2	0.31	0.13	0.31	0.44	0.	-0.21	0.98	2.201	-3.	0	68
20461	ONOCGN	COAL-FG	29.	0.	0.	0.15	42.8	3.25	1.38	2.16	10.81	7.24	0.	24.84	1.000	0.	0	0
20461	STM141	RESIDUA	29.	1.00	0.176	0.15	29.6	2.24	0.95	1.57	21.36	0.	0.	26.12	1.052	2.	-11	0
20461	STM141	RESIDUA	29.	2.04	0.277	0.15	28.1	2.13	0.91	1.29	24.21	0.	-4.51	24.03	0.968	10.	999	0
20461	STM141	COAL-FG	29.	1.00	0.176	0.15	51.9	3.94	1.67	3.04	12.40	0.	0.	21.05	0.848	7.	27	4
20461	STM141	COAL-FG	29.	2.04	0.277	0.15	59.0	4.48	1.90	2.90	14.06	0.	-4.51	18.83	0.758	11.	25	4
20461	STM141	COAL-AF	29.	1.00	0.176	0.15	43.4	3.30	1.40	2.83	12.40	0.	0.	19.93	0.802	15.	999	1
20461	STM141	COAL-AF	29.	2.04	0.277	0.15	41.8	3.17	1.35	2.57	14.06	0.	-4.51	16.64	0.670	26.	999	0
20461	STM088	RESIDUA	29.	1.00	0.176	0.15	24.9	1.89	0.80	1.44	21.36	0.	0.	25.50	1.027	7.	-7	0
20461	STM088	RESIDUA	29.	1.61	0.241	0.15	25.8	1.96	0.83	1.23	23.03	0.	-2.64	24.41	0.983	10.	-2	0
20461	STM088	COAL-FG	29.	1.00	0.176	0.15	51.1	3.88	1.65	2.98	12.40	0.	0.	20.91	0.842	8.	30	4
20461	STM088	COAL-FG	29.	1.61	0.241	0.15	55.5	4.21	1.79	2.73	13.37	0.	-2.64	19.46	0.784	11.	28	4
20461	STM088	COAL-AF	29.	1.00	0.176	0.15	42.0	3.19	1.36	2.80	12.40	0.	0.	19.75	0.795	16.	999	0
20461	STM088	COAL-AF	29.	1.61	0.241	0.15	40.5	3.07	1.31	2.49	13.37	0.	-2.64	17.60	0.709	24.	999	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********																	
20461	PFBSTM	COAL-PF	29.	1.00	0.174 0.15	52.3	3.97	1.69	3.40	12.43	0.	0.	21.49	0.865	6.	24	4
20461	PFBSTM	COAL-PF	29.	2.96	0.332 0.15	58.6	4.44	1.89	4.23	15.59	0.	-8.49	17.66	0.711	15.	29	4
20461	TISTMT	RESIDUA	29.	1.00	0.173 0.15	69.3	5.26	2.24	2.56	21.43	0.	0.	31.48	1.267	-33.	0	61
20461	TISTMT	RESIDUA	29.	3.80	0.368 0.15	150.9	11.45	4.87	4.45	29.30	0.	-12.18	37.90	1.526	-93.	0	80
20461	TISTMT	COAL	29.	1.00	0.173 0.15	95.5	7.24	3.08	4.09	12.44	0.	0.	26.85	1.081	-32.	1	23
20461	TISTMT	COAL	29.	3.80	0.368 0.15	189.7	14.40	6.12	6.28	17.01	0.	-12.18	31.63	1.274	-92.	0	28
20461	TIHRSG	RESIDUA	29.	1.00	0.152 0.15	97.4	7.21	3.07	3.14	21.96	0.	0.	35.38	1.424	-58.	0	63
20461	TIHRSG	RESIDUA	29.	1.41	0 192 0.15	119.8	8.87	3.77	3.46	23.32	0.	-1.76	37.66	1.516	-76.	0	65
20461	TIHRSG	COAL	29.	1.00	0.152 0.15	132.0	10.01	4.26	4.89	12.75	0.	0.	31.91	1.285	-65.	0	999
20461	TIHRSG	COAL	29.	1.41	0.192 0.15	152.7	11.59	4.93	5.05	13.54	0.	-1.76	33.34	1.342	-79.	0	999
20461	STIRL	DISTILL	29.	1.00	0.129 0.15	38.3	2.84	1.21	1.74	27.66	0.	0.	33.45	1.347	-24.	-79	0
20461	STIRL	DISTILL	29.	4.14	0.284 0.15	75.9	5.62	2.39	2.54	42.89	0.	-13.65	39.80	1.602	-62.	0	58
20461	STIRL	RESIDUA	29.	1.00	0.129 0.15	38.4	2.84	1.21	1.74	22.57	0.	0.	28.36	1.142	-8.	-38	0
20461	STIRL	RESIDUA	29.	4.14	0.284 0.15	76.0	5.63	2.39	2.55	34.99	0.	-13.65	31.91	1.285	-37.	0	62
20461	STIRL	COAL	29.	1.00	0.129 0.15	64.4	4.77	2.03	3.30	13.10	0.	0.	23.20	0.934	-5.	10	8
20461	STIRL	COAL	29.	4.14	0.284 0.15	134.1	9.94	4.22	5.05	20.32	0.	-13.65	25.87	1.042	-46.	4	15
20461	HEGT85	COAL-AF	29.	1.00	0.091 0.15	81.5	6.19	2.63	3.61	13.68	0.	0.	26.11	1.051	-23.	2	21
20461	HEGT85	COAL-AF	29.	8.00	0.244 0.15	233.6	17.72	7.54	8.43	33.80	0.	-30.42	37.06	1.492	-130.	0	999
20461	HEGT60	COAL-AF	29.	1.00	0.089 0.15	79.3	6.02	2.56	3.58	13.70	0.	0.	25.86	1.041	-21.	2	19
20461	HEGT60	COAL-AF	29.	4.62	0.204 0.15	156.6	11.89	5.05	5.89	24.18	0.	-15.72	31.28	1.259	-75.	0	999
20461	HEGT00	COAL-AF	29.	1.00	0.082 0.15	76.3	5.79	2.46	3.55	13.81	0.	0.	25.61	1.031	-19.	3	18
20461	HEGT00	COAL-AF	29.	2.30	0.138 0.15	99.5	7.55	3.21	4.03	17.72	0.	-5.65	26.87	1.062	-34.	1	22
20461	FCMCCL	COAL	29.	1.00	0.151 0.15	75.2	5.84	2.48	3.85	12.77	0.	0.	24.96	1.005	-17.	5	14
20461	FCMCCL	COAL	29.	4.33	0.338 0.15	125.4	9.75	4.15	6.56	19.32	0.	-14.47	25.30	1.019	-43.	4	14
20461	FCSTCL	COAL	29.	1.00	0.157 0.15	72.3	5.62	2.39	3.74	12.68	0.	0.	24.42	0.983	-14.	6	12
20461	FCSTCL	COAL	29.	7.65	0.419 0.15	163.2	12.69	5.40	8.55	25.10	0.	-28.88	22.86	0.921	-54.	6	12
20461	IGGTST	COAL	29.	1.00	0.129 0.15	69.0	5.36	2.28	3.31	13.11	0.	0.	24.06	0.969	-11.	7	11
20461	IGGTST	COAL	29.	5.48	0.312 0.15	128.9	10.02	4.26	4.25	23.41	0.	-19.47	22.47	0.905	-35.	7	11
20461	GTS0AR	RESIDUA	29.	1.00	0.137 0.15	32.2	2.38	1.01	1.52	22.36	0.	0.	27.28	1.098	-2.	-18	0
20461	GTS0AR	RESIDUA	29.	4.32	0.306 0.15	51.5	3.81	1.62	1.82	34.78	0.	-14.42	27.62	1.112	-12.	0	58
20461	GTAC08	RESIDUA	29.	1.00	0.148 0.15	30.4	2.25	0.96	1.48	22.09	0.	0.	26.78	1.078	0.	-14	0
20461	GTAC08	RESIDUA	29.	3.60	0.307 0.15	39.2	2.90	1.23	1.50	31.11	0.	-11.28	25.46	1.025	0.	-13	0
20461	GTAC12	RESIDUA	29.	1.00	0.150 0.15	31.0	2.30	0.98	1.49	22.01	0.	0.	26.78	1.078	-0.	-15	0
20461	GTAC12	RESIDUA	29.	4.37	0.337 0.15	46.2	3.42	1.46	1.68	33.48	0.	-14.66	25.39	1.022	-3.	0	56
20461	GTAC16	RESIDUA	29.	1.00	0.150 0.15	31.8	2.36	1.00	1.50	22.03	0.	0.	26.89	1.083	-1.	-16	0
20461	GTAC16	RESIDUA	29.	4.88	0.350 0.15	55.7	4.13	1.75	1.93	35.25	0.	-16.84	26.22	1.056	-10.	0	74
20461	GTWC16	RESIDUA	29.	1.00	0.131 0.15	31.7	2.35	1.00	1.51	22.51	0.	0.	27.37	1.102	-2.	-18	0
20461	GTWC16	RESIDUA	29.	5.29	0.315 0.15	49.6	3.67	1.56	1.80	39.23	0.	-18.65	27.62	1.112	-11.	0	57
20461	CC1626	RESIDUA	29.	1.00	0.133 0.15	32.0	2.43	1.03	1.61	22.47	0.	0.	27.54	1.109	-3.	-19	0
20461	CC1626	RESIDUA	29.	9.50	0.371 0.15	78.3	5.94	2.53	2.76	55.28	0.	-36.93	29.57	1.190	-32.	0	73
20461	CC1622	RESIDUA	29.	1.00	0.139 0.15	31.9	2.42	1.03	1.60	22.31	0.	0.	27.37	1.102	-3.	-18	0
20461	CC1622	RESIDUA	29.	8.57	0.380 0.15	79.2	6.01	2.56	2.71	50.31	0.	-32.89	28.70	1.155	-29.	0	94
20461	CC1222	RESIDUA	29.	1.00	0.140 0.15	31.3	2.38	1.01	1.59	22.28	0.	0.	27.26	1.097	-2.	-17	0
20461	CC1222	RESIDUA	29.	8.56	0.383 0.15	74.2	5.63	2.40	2.63	49.99	0.	-32.85	27.80	1.119	-24.	0	137

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
20461	CC0822	RESIDUA	29.	1.00	0.150 0.15	31.2	2.36	1.01	1.59	22.03	0.	0.	26.99	1.087	-1.	-16	0
20461	CC0822	RESIDUA	29.	6.92	0.389 0.15	61.2	4.65	1.98	2.26	42.25	0.	-25.72	25.41	1.023	-11.	2	20
20461	STIG15	RESIDUA	29.	1.00	0.049 0.15	35.4	2.62	1.11	1.79	24.65	0.	0.	30.18	1.215	-13.	-38	0
20461	STIG15	RESIDUA	29.	198.62	0.171 0.15	1371.1	101.56	43.18	73.68	1217.15	0.	-858.46	577.08	23.233	-2357.	0	59
20461	STIG10	RESIDUA	29.	1.00	0.070 0.15	34.4	2.55	1.08	1.71	24.10	0.	0.	29.44	1.185	-10.	-31	0
20461	STIG10	RESIDUA	29.	18.37	0.218 0.15	145.3	10.76	4.58	6.80	119.42	0.	-75.44	66.11	2.662	-177.	0	59
20461	STIG1S	RESIDUA	29.	1.00	0.079 0.15	30.7	2.28	0.97	1.63	23.85	0.	0.	28.72	1.156	-6.	-22	0
20461	STIG1S	RESIDUA	29.	10.78	0.228 0.15	91.2	6.76	2.87	4.45	75.06	0.	-42.47	46.67	1.879	-91.	0	58
20461	DEADV3	RESIDUA	29.	1.00	0.111 0.15	41.0	3.04	1.29	1.79	23.03	0.	0.	29.15	1.174	-12.	-77	0
20461	DEADV3	RESIDUA	29.	9.90	0.314 0.15	182.6	13.52	5.75	5.36	62.28	0.	-38.65	48.26	1.943	-138.	0	66
20461	DEHTPM	RESIDUA	29.	1.00	0.162 0.15	40.3	2.98	1.27	1.82	21.70	0.	0.	27.78	1.118	-7.	-46	0
20461	DEHTPM	RESIDUA	29.	5.63	0.397 0.15	107.7	7.98	3.39	3.45	36.00	0.	-20.10	30.71	1.237	-48.	0	147
20461	DESOA3	DISTILL	29.	1.00	0.097 0.15	45.7	3.38	1.44	1.91	28.69	0.	0.	35.43	1.426	-34.	0	56
20461	DESOA3	DISTILL	29.	11.12	0.279 0.15	254.2	18.83	8.00	7.19	88.14	0.	-43.95	78.21	3.149	-266.	0	61
20461	DESOA3	RESIDUA	29.	1.00	0.097 0.15	45.7	3.38	1.44	1.91	23.41	0.	0.	30.14	1.214	-17.	0	56
20461	DESOA3	RESIDUA	29.	11.12	0.279 0.15	254.2	18.83	8.00	7.19	71.91	0.	-43.95	61.97	2.495	-215.	0	65
20461	GTSOAD	DISTILL	29.	1.00	0.146 0.15	29.8	2.21	0.94	1.46	27.13	0.	0.	31.73	1.278	-15.	-31	0
20461	GTSOAD	DISTILL	29.	4.16	0.321 0.15	40.1	2.97	1.26	1.53	40.73	0.	-13.71	32.79	1.320	-23.	104	0
20461	GTRA08	DISTILL	29.	1.00	0.141 0.15	33.1	2.45	1.04	1.53	27.28	0.	0.	32.30	1.301	-18.	-41	0
20461	GTRA08	DISTILL	29.	6.42	0.358 0.15	71.0	5.26	2.24	2.35	51.49	0.	-23.56	37.78	1.521	-53.	0	58
20461	GTRA12	DISTILL	29.	1.00	0.143 0.15	33.3	2.46	1.05	1.54	27.23	0.	0.	32.28	1.300	-18.	-41	0
20461	GTRA12	DISTILL	29.	6.37	0.362 0.15	70.3	5.21	2.21	2.33	50.92	0.	-23.32	37.34	1.504	-51.	0	58
20461	GTRA16	DISTILL	29.	1.00	0.143 0.15	34.0	2.52	1.07	1.56	27.22	0.	0.	32.38	1.303	-19.	-44	0
20461	GTRA16	DISTILL	29.	6.01	0.356 0.15	71.3	5.28	2.25	2.35	49.31	0.	-21.78	37.41	1.506	-52.	0	58
20461	GTR208	DISTILL	29.	1.00	0.142 0.15	32.0	2.37	1.01	1.51	27.25	0.	0.	32.15	1.294	-17.	-37	0
20461	GTR208	DISTILL	29.	5.06	0.335 0.15	56.1	4.16	1.77	1.95	45.27	0.	-17.65	35.51	1.430	-39.	0	57
20461	GTR212	DISTILL	29.	1.00	0.141 0.15	32.6	2.41	1.03	1.52	27.30	0.	0.	32.26	1.299	-18.	-39	0
20461	GTR212	DISTILL	29.	5.44	0.340 0.15	60.7	4.50	1.91	2.07	47.17	0.	-19.28	36.37	1.464	-44.	0	57
20461	GTR216	DISTILL	29.	1.00	0.143 0.15	33.2	2.46	1.05	1.54	27.21	0.	0.	32.26	1.299	-18.	-41	0
20461	GTR216	DISTILL	29.	5.56	0.349 0.15	65.0	4.81	2.05	2.18	47.23	0.	-19.81	36.46	1.468	-46.	0	57
20461	GTRW08	DISTILL	29.	1.00	0.118 0.15	32.9	2.44	1.04	1.53	28.02	0.	0.	33.03	1.330	-20.	-43	0
20461	GTRW08	DISTILL	29.	7.74	0.314 0.15	73.0	5.41	2.30	2.44	63.08	0.	-29.26	43.96	1.779	-73.	0	57
20461	GTRW12	DISTILL	29.	1.00	0.124 0.15	32.9	2.44	1.04	1.53	27.82	0.	0.	32.83	1.322	-20.	-42	0
20461	GTRW12	DISTILL	29.	7.98	0.334 0.15	74.3	5.50	2.34	2.47	62.76	0.	-30.33	42.75	1.721	-70.	0	57
20461	GTRW16	DISTILL	29.	1.00	0.125 0.15	33.4	2.48	1.05	1.55	27.79	0.	0.	32.87	1.323	-20.	-44	0
20461	GTRW16	DISTILL	29.	7.50	0.331 0.15	74.2	5.50	2.34	2.46	60.11	0.	-28.23	42.18	1.698	-68.	0	57
20461	GTR308	DISTILL	29.	1.00	0.114 0.15	32.1	2.38	1.01	1.52	28.13	0.	0.	33.04	1.330	-20.	-41	0
20461	GTR308	DISTILL	29.	5.82	0.282 0.15	59.5	4.41	1.87	2.07	53.73	0.	-20.94	41.14	1.656	-58.	0	56
20461	GTR312	DISTILL	29.	1.00	0.126 0.15	32.1	2.38	1.01	1.51	27.77	0.	0.	32.67	1.316	-19.	-40	0
20461	GTR312	DISTILL	29.	6.68	0.323 0.15	63.9	4.73	2.01	2.19	55.90	0.	-24.68	40.16	1.617	-57.	0	57
20461	GTR316	DISTILL	29.	1.00	0.125 0.15	32.7	2.42	1.03	1.53	27.79	0.	0.	32.78	1.320	-20.	-42	0
20461	GTR316	DISTILL	29.	6.58	0.320 0.15	65.9	4.88	2.08	2.24	55.58	0.	-24.25	40.52	1.631	-59.	0	57
20461	FCPADS	DISTILL	29.	1.00	0.092 0.15	42.7	3.16	1.34	3.73	28.84	0.	0.	37.08	1.493	-38.	999	0
20461	FCPADS	DISTILL	29.	15.15	0.279 0.15	244.7	18.13	7.71	38.13	114.09	0.	-61.46	116.59	4.694	-386.	0	60

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
20461 FCMCDS	DISTILL	29.	1.00	0.123 0.15	43.9	3.25	1.38	3.59	27.86	0.	0.	36.08	1.453	-35.	999	0
20461 FCMCDS	DISTILL	29.	11.98	0.360 0.15	210.2	15.57	6.62	28.67	83.24	0.	-47.71	86.40	3.478	-274.	0	61
20631 ONGCGN	COAL-FG	5.	0.	0. 0.05	20.6	1.56	0.66	1.13	1.64	0.51	0.	5.51	1.000	0.	0	0
20631 STM141	RESIDUA	5.	1.00	0.095 0.05	11.7	0.89	0.38	0.89	3.02	0.	0.	5.17	0.940	5.	-1	0
20631 STM141	RESIDUA	5.	5.64	0.315 0.05	16.3	1.23	0.52	0.87	3.91	0.	-1.41	5.13	0.932	3.	999	0
20631 STM141	COAL-FG	5.	1.00	0.095 0.05	26.6	2.02	0.86	1.67	1.75	0.	0.	6.30	1.143	-5.	0	87
20631 STM141	COAL-FG	5.	5.64	0.315 0.05	29.2	2.22	0.94	1.53	2.27	0.	-1.41	5.55	1.008	-4.	4	14
20631 STM141	COAL-AF	5.	1.00	0.095 0.05	25.1	1.90	0.81	1.57	1.75	0.	0.	6.04	1.096	-4.	0	111
20631 STM141	COAL-AF	5.	5.64	0.315 0.05	21.3	1.61	0.69	1.27	2.27	0.	-1.41	4.43	0.803	3.	79	2
20631 STM088	RESIDUA	5.	1.00	0.095 0.05	11.5	0.87	0.37	0.89	3.02	0.	0.	5.16	0.937	5.	-1	0
20631 STM088	RESIDUA	5.	4.46	0.278 0.05	14.7	1.12	0.48	0.83	3.68	0.	-1.05	5.06	0.918	4.	999	0
20631 STM088	COAL-FG	5.	1.00	0.095 0.05	26.6	2.02	0.86	1.68	1.75	0.	0.	6.31	1.146	-5.	0	85
20631 STM088	COAL-FG	5.	4.46	0.278 0.05	27.2	2.06	0.88	1.46	2.14	0.	-1.05	5.49	0.997	-3.	5	13
20631 STM088	COAL-AF	5.	1.00	0.095 0.05	25.0	1.90	0.81	1.58	1.75	0.	0.	6.04	1.096	-4.	0	107
20631 STM088	COAL-AF	5.	4.46	0.278 0.05	20.3	1.54	0.65	1.23	2.14	0.	-1.05	4.51	0.819	3.	999	0
20631 PFBSTM	COAL-PF	5.	1.00	0.095 0.05	26.3	2.00	0.85	1.61	1.76	0.	0.	6.22	1.129	-5.	0	94
20631 PFBSTM	COAL-PF	5.	8.18	0.369 0.05	34.8	2.64	1.12	1.86	2.57	0.	-2.18	6.00	1.090	-8.	2	22
20631 TISTMT	RESIDUA	5.	1.00	0.094 0.05	22.2	1.69	0.72	1.13	3.02	0.	0.	6.56	1.191	-4.	0	57
20631 TISTMT	RESIDUA	5.	8.26	0.368 0.05	72.4	5.49	2.33	2.48	4.45	0.	-2.21	12.56	2.280	-47.	0	74
20631 TISTMT	COAL	5.	1.00	0.094 0.05	36.1	2.74	1.16	1.87	1.76	0.	0.	7.53	1.367	-14.	0	79
20631 TISTMT	COAL	5.	10.53	0.403 0.05	105.9	8.03	3.42	3.50	2.84	0.	-2.90	14.90	2.705	-70.	0	93
20631 TIHRSG	RESIDUA	5.	1.00	0.083 0.05	29.5	2.19	0.93	1.26	3.06	0.	0.	7.44	1.351	-10.	0	61
20631 TIHRSG	RESIDUA	5.	3.05	0.192 0.05	57.8	4.28	1.82	1.97	3.54	0.	-0.62	10.99	1.996	-34.	0	69
20631 TIHRSG	COAL	5.	1.00	0.083 0.05	46.3	3.52	1.50	2.09	1.78	0.	0.	8.88	1.612	-23.	0	77
20631 TIHRSG	COAL	5.	3.89	0.223 0.05	85.1	6.46	2.74	2.79	2.17	0.	-0.88	13.28	2.412	-55.	0	81
20631 STIRL	DISTILL	5.	1.00	0.070 0.05	14.3	1.06	0.45	0.89	3.81	0.	0.	6.20	1.126	1.	-12	0
20631 STIRL	DISTILL	5.	9.00	0.284 0.05	31.4	2.32	0.99	1.44	6.52	0.	-2.43	8.84	1.604	-15.	0	59
20631 STIRL	RESIDUA	5.	1.00	0.070 0.05	14.3	1.06	0.45	0.89	3.10	0.	0.	5.50	0.999	3.	-5	0
20631 STIRL	RESIDUA	5.	9.00	0.284 0.05	31.4	2.33	0.99	1.44	5.32	0.	-2.43	7.64	1.387	-12.	0	63
20631 STIRL	COAL	5.	1.00	0.070 0.05	26.9	2.00	0.85	1.59	1.80	0.	0.	6.24	1.132	-5.	0	89
20631 STIRL	COAL	5.	11.48	0.309 0.05	62.4	4.62	1.97	2.43	3.48	0.	-3.18	9.32	1.693	-31.	0	170
20631 HEGT85	COAL-AF	5.	1.00	0.049 0.05	32.9	2.50	1.06	1.62	1.84	0.	0.	7.02	1.275	-11.	0	83
20631 HEGT85	COAL-AF	5.	22.17	0.258 0.05	133.9	10.16	4.32	4.24	6.10	0.	-6.43	18.39	3.339	-95.	0	88
20631 HEGT60	COAL-AF	5.	1.00	0.048 0.05	32.5	2.46	1.05	1.62	1.84	0.	0.	6.98	1.267	-10.	0	82
20631 HEGT60	COAL-AF	5.	12.79	0.221 0.05	90.0	6.83	2.91	2.98	4.23	0.	-3.58	13.36	2.427	-58.	0	93
20631 HEGT00	COAL-AF	5.	1.00	0.045 0.05	32.0	2.43	1.03	1.63	1.85	0.	0.	6.93	1.259	-10.	0	82
20631 HEGT00	COAL-AF	5.	6.37	0.156 0.05	57.2	4.34	1.84	2.04	2.98	0.	-1.63	9.57	1.737	-30.	0	91
20631 FCMCCL	COAL	5.	1.00	-0.151 0.05	33.4	2.60	1.10	1.69	2.23	0.	0.	7.63	1.385	-13.	0	70
20631 FCMCCL	COAL	5.	12.00	0.280 0.05	70.9	5.51	2.34	2.81	3.74	0.	-3.34	11.07	2.009	-42.	0	101
20631 FCSTCL	COAL	5.	1.00	-0.148 0.05	32.5	2.52	1.07	1.72	2.23	0.	0.	7.54	1.369	-12.	0	69
20631 FCSTCL	COAL	5.	21.18	0.386 0.05	92.1	7.16	3.05	3.67	4.86	0.	-6.13	12.61	2.290	-58.	0	155
20631 IGGTST	COAL	5.	1.00	-0.163 0.05	31.6	2.46	1.04	1.75	2.26	0.	0.	7.51	1.363	-12.	0	68
20631 IGGTST	COAL	5.	15.18	0.262 0.05	71.5	5.56	2.33	2.60	4.54	0.	-4.31	10.74	1.950	-42.	0	122
20631 GTSCAR	RESIDUA	5.	1.00	0.074 0.05	13.7	1.01	0.43	0.84	3.09	0.	0.	5.37	0.975	4.	-3	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
20631 GTSOAR	RESIDUA	5.	9.38	0.306 0.05	23.5	1.74	0.74	1.16	5.28	0.	-2.55	6.38	1.158	-4.	0	59
20631 GTAC08	RESIDUA	5.	1.00	0.080 0.05	13.1	0.97	0.41	0.82	3.07	0.	0.	5.28	0.959	4.	-2	0
20631 GTAC08	RESIDUA	5.	7.81	0.307 0.05	19.6	1.45	0.62	1.05	4.73	0.	-2.07	5.78	1.050	-0.	-17	0
20631 GTAC12	RESIDUA	5.	1.00	0.082 0.05	13.1	0.97	0.41	0.82	3.07	0.	0.	5.27	0.956	5.	-2	0
20631 GTAC12	RESIDUA	5.	9.50	0.337 0.05	22.3	1.65	0.70	1.13	5.09	0.	-2.58	5.99	1.088	-2.	0	58
20631 GTAC16	RESIDUA	5.	1.00	0.081 0.05	13.2	0.98	0.42	0.82	3.07	0.	0.	5.28	0.959	4.	-2	0
20631 GTAC16	RESIDUA	5.	10.59	0.350 0.05	24.8	1.84	0.78	1.20	5.35	0.	-2.91	6.26	1.136	-4.	0	63
20631 GTWC16	RESIDUA	5.	1.00	0.071 0.05	13.5	1.00	0.43	0.83	3.10	0.	0.	5.36	0.972	4.	-3	0
20631 GTWC16	RESIDUA	5.	11.49	0.315 0.05	24.9	1.85	0.79	1.22	5.96	0.	-3.19	6.62	1.202	-5.	0	60
20631 CC1626	RESIDUA	5.	1.00	0.072 0.05	13.4	1.02	0.43	0.89	3.10	0.	0.	5.44	0.988	4.	-4	0
20631 CC1626	RESIDUA	5.	20.63	0.371 0.05	35.0	2.65	1.13	1.64	8.40	0.	-5.97	7.86	1.427	-14.	0	68
20631 CC1622	RESIDUA	5.	1.00	0.075 0.05	13.1	1.00	0.42	0.89	3.09	0.	0.	5.40	0.980	4.	-3	0
20631 CC1622	RESIDUA	5.	18.61	0.380 0.05	34.6	2.62	1.12	1.61	7.64	0.	-5.35	7.64	1.387	-13.	0	70
20631 CC1222	RESIDUA	5.	1.00	0.076 0.05	13.0	0.99	0.42	0.88	3.08	0.	0.	5.37	0.976	4.	-3	0
20631 CC1222	RESIDUA	5.	18.59	0.383 0.05	32.9	2.50	1.06	1.58	7.59	0.	-5.35	7.38	1.341	-12.	0	70
20631 CC0822	RESIDUA	5.	1.00	0.081 0.05	13.2	1.00	0.43	0.89	3.07	0.	0.	5.38	0.978	4.	-3	0
20631 CC0822	RESIDUA	5.	15.03	0.389 0.05	28.1	2.13	0.91	1.43	6.42	0.	-4.26	6.62	1.203	-7.	0	71
20631 STIG15	RESIDUA	5.	1.00	0.026 0.05	16.3	1.20	0.51	0.91	3.25	0.	0.	5.87	1.066	1.	-10	0
20631 STIG15	RESIDUA	5.	431.21	0.171 0.05	510.6	37.82	16.08	20.00	184.92	0.	-130.78	128.03	23.247	-614.	0	61
20631 STIG10	RESIDUA	5.	1.00	0.038 0.05	13.1	0.97	0.41	0.83	3.21	0.	0.	5.42	0.984	4.	-4	0
20631 STIG10	RESIDUA	5.	39.88	0.218 0.05	56.7	4.20	1.79	2.56	18.14	0.	-11.82	14.87	2.699	-46.	0	61
20631 STIG1S	RESIDUA	5.	1.00	0.043 0.05	13.0	0.96	0.41	0.83	3.19	0.	0.	5.39	0.979	4.	-4	0
20631 STIG1S	RESIDUA	5.	23.40	0.228 0.05	39.1	2.90	1.23	1.90	11.40	0.	-6.81	10.62	1.929	-25.	0	60
20631 DEADV3	RESIDUA	5.	1.00	0.060 0.05	16.3	1.21	0.51	0.92	3.14	0.	0.	5.79	1.051	1.	-9	0
20631 DEADV3	RESIDUA	5.	21.49	0.314 0.05	70.2	5.20	2.21	2.51	9.46	0.	-6.23	13.16	2.389	-47.	0	68
20631 DEHTPM	RESIDUA	5.	1.00	0.088 0.05	16.2	1.20	0.51	0.95	3.04	0.	0.	5.71	1.036	2.	-8	0
20631 DEHTPM	RESIDUA	5.	12.22	0.397 0.05	42.8	3.17	1.35	1.80	5.47	0.	-3.41	8.38	1.522	-19.	0	74
20631 DESOA3	DISTILL	5.	1.00	0.052 0.05	15.5	1.15	0.49	0.91	3.88	0.	0.	6.42	1.166	-0.	-15	0
20631 DESOA3	DISTILL	5.	24.14	0.279 0.05	96.0	7.11	3.02	3.19	13.39	0.	-7.03	19.68	3.574	-80.	0	64
20631 DESOA3	RESIDUA	5.	1.00	0.052 0.05	15.5	1.15	0.49	0.91	3.16	0.	0.	5.71	1.036	2.	-8	0
20631 DESOA3	RESIDUA	5.	24.14	0.279 0.05	96.0	7.11	3.02	3.19	10.92	0.	-7.03	17.22	3.126	-72.	0	68
20631 GTSOAD	DISTILL	5.	1.00	0.079 0.05	12.9	0.95	0.41	0.82	3.77	0.	0.	5.94	1.079	2.	-9	0
20631 GTSOAD	DISTILL	5.	9.02	0.321 0.05	20.0	1.48	0.63	1.07	6.19	0.	-2.44	6.93	1.258	-4.	-67	0
20631 GTRA08	DISTILL	5.	1.00	0.077 0.05	13.8	1.02	0.44	0.83	3.78	0.	0.	6.07	1.102	2.	-10	0
20631 GTRA08	DISTILL	5.	13.95	0.358 0.05	32.0	2.37	1.01	1.40	7.82	0.	-3.94	8.67	1.575	-15.	0	60
20631 GTRA12	DISTILL	5.	1.00	0.077 0.05	13.8	1.02	0.43	0.83	3.78	0.	0.	6.06	1.100	2.	-10	0
20631 GTRA12	DISTILL	5.	13.83	0.362 0.05	30.7	2.27	0.97	1.37	7.74	0.	-3.90	8.45	1.533	-14.	0	60
20631 GTRA16	DISTILL	5.	1.00	0.078 0.05	14.0	1.04	0.44	0.84	3.78	0.	0.	6.09	1.105	2.	-11	0
20631 GTRA16	DISTILL	5.	13.06	0.356 0.05	31.1	2.30	0.98	1.37	7.49	0.	-3.66	8.48	1.540	-14.	0	60
20631 GTR208	DISTILL	5.	1.00	0.077 0.05	13.5	1.00	0.43	0.83	3.78	0.	0.	6.03	1.095	2.	-10	0
20631 GTR208	DISTILL	5.	10.99	0.335 0.05	25.2	1.87	0.79	1.22	6.88	0.	-3.04	7.72	1.401	-9.	0	57
20631 GTR212	DISTILL	5.	1.00	0.076 0.05	13.6	1.01	0.43	0.83	3.78	0.	0.	6.05	1.099	2.	-10	0
20631 GTR212	DISTILL	5.	11.81	0.340 0.05	27.0	2.00	0.85	1.27	7.17	0.	-3.29	8.00	1.452	-11.	0	58
20631 GTR216	DISTILL	5.	1.00	0.078 0.05	13.7	1.02	0.43	0.83	3.77	0.	0.	6.06	1.099	2.	-10	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
						********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********										
20631 GTR216	DISTILL	5.	12.08	0.349 0.05	28.6	2.12	0.90	1.31	7.18	0.	-3.37	8.13	1.476	-12.	0	59
20631 GTRW08	DISTILL	5.	1.00	0.064 0.05	13.9	1.03	0.44	0.84	3.83	0.	0.	6.13	1.114	1.	-11	0
20631 GTRW08	DISTILL	5.	16.80	0.314 0.05	32.2	2.39	1.01	1.44	9.58	0.	-4.80	9.62	1.747	-18.	0	59
20631 GTRW12	DISTILL	5.	1.00	0.067 0.05	13.9	1.03	0.44	0.83	3.82	0.	0.	6.12	1.111	1.	-11	0
20631 GTRW12	DISTILL	5.	17.33	0.334 0.05	32.7	2.42	1.03	1.45	9.53	0.	-4.96	9.48	1.721	-18.	0	59
20631 GTRW16	DISTILL	5.	1.00	0.068 0.05	14.1	1.04	0.44	0.84	3.81	0.	0.	6.14	1.114	1.	-11	0
20631 GTRW16	DISTILL	5.	16.28	0.331 0.05	32.7	2.42	1.03	1.44	9.13	0.	-4.64	9.38	1.704	-18.	0	59
20631 GTR308	DISTILL	5.	1.00	0.062 0.05	13.6	1.00	0.43	0.83	3.84	0.	0.	6.10	1.108	2.	-10	0
20631 GTR308	DISTILL	5.	12.64	0.282 0.05	26.7	1.98	0.84	1.28	8.16	0.	-3.54	8.72	1.584	-13.	0	57
20631 GTR312	DISTILL	5.	1.00	0.068 0.05	13.6	1.01	0.43	0.83	3.81	0.	0.	6.08	1.105	2.	-10	0
20631 GTR312	DISTILL	5.	14.51	0.323 0.05	28.5	2.11	0.90	1.33	8.49	0.	-4.11	8.73	1.585	-14.	0	58
20631 GTR316	DISTILL	5.	1.00	0.068 0.05	13.8	1.03	0.44	0.84	3.81	0.	0.	6.11	1.110	2.	-11	0
20631 GTR316	DISTILL	5.	14.30	0.320 0.05	29.4	2.17	0.92	1.35	8.44	0.	-4.04	8.85	1.607	-14.	0	58
20631 FCPADS	DISTILL	5.	1.00	0.050 0.05	14.6	1.08	0.46	0.92	3.89	0.	0.	6.35	1.154	0.	-14	0
20631 FCPADS	DISTILL	5.	32.90	0.279 0.05	93.2	6.90	2.93	7.61	17.33	0.	-9.69	25.09	4.555	-96.	0	62
20631 FCMCDS	DISTILL	5.	1.00	0.067 0.05	14.8	1.10	0.47	0.91	3.82	0.	0.	6.30	1.144	0.	-13	0
20631 FCMCDS	DISTILL	5.	26.02	0.360 0.05	80.4	5.96	2.53	5.96	12.65	0.	-7.61	19.49	3.539	-72.	0	63
20821 ONOCGN	COAL-AF	6.	0.	0. 0.24	7.1	0.54	0.23	0.63	1.41	1.53	0.	4.34	1.000	0.	0	0
20821 STM141	RESIDUA	6.	1.00	0.243 0.24	6.9	0.53	0.22	0.61	3.01	0.	0.	4.37	1.008	-0.	-19	0
20821 STM141	RESIDUA	6.	1.25	0.277 0.24	6.6	0.50	0.21	0.49	3.16	0.	-0.23	4.13	0.952	1.	999	0
20821 STM141	COAL-FG	6.	1.00	0.243 0.24	13.6	1.03	0.44	1.07	1.75	0.	0.	4.29	0.990	-3.	5	13
20821 STM141	COAL-FG	6.	1.25	0.277 0.24	12.3	0.94	0.40	0.86	1.83	0.	-0.23	3.79	0.875	-1.	12	8
20821 STM141	COAL-AF	6.	1.00	0.243 0.24	11.6	0.88	0.38	0.98	1.75	0.	0.	3.98	0.919	-1.	10	9
20821 STM141	COAL-AF	6.	1.25	0.277 0.24	9.9	0.75	0.32	0.75	1.83	0.	-0.23	3.42	0.788	2.	24	5
20821 STM088	RESIDUA	6.	0.99	0.240 0.24	5.9	0.45	0.19	0.46	3.01	0.01	0.	4.12	0.950	1.	999	0
20821 STM088	COAL-FG	6.	0.99	0.240 0.24	11.4	0.86	0.37	0.82	1.75	0.01	0.	3.80	0.878	-0.	13	7
20821 STM088	COAL-AF	6.	0.99	0.240 0.24	9.3	0.71	0.30	0.72	1.75	0.01	0.	3.49	0.805	2.	26	4
20821 PFBSTM	COAL-PF	6.	1.00	0.240 0.24	15.4	1.17	0.50	1.18	1.75	0.	0.	4.60	1.062	-5.	2	21
20821 PFBSTM	COAL-PF	6.	1.82	0.332 0.24	15.3	1.16	0.50	1.06	2.03	0.	-0.75	4.00	0.922	-3.	8	10
20821 TISTMT	RESIDUA	6.	1.00	0.239 0.24	19.9	1.51	0.64	0.95	3.02	0.	0.	6.12	1.413	-12.	0	72
20821 TISTMT	RESIDUA	6.	2.34	0.368 0.24	33.1	2.51	1.07	1.17	3.82	0.	-1.24	7.34	1.694	-22.	0	85
20821 TISTMT	COAL	6.	1.00	0.239 0.24	28.3	2.15	0.91	1.47	1.76	0.	0.	6.28	1.449	-16.	0	287
20821 TISTMT	COAL	6.	2.34	0.368 0.24	42.0	3.19	1.36	1.64	2.22	0.	-1.24	7.17	1.653	-26.	0	399
20821 TIHRSG	RESIDUA	6.	0.87	0.182 0.24	26.1	1.94	0.82	0.88	3.04	0.21	0.	6.88	1.588	-17.	0	71
20821 TIHRSG	COAL	6.	0.87	0.182 0.24	33.7	2.56	1.09	1.27	1.77	0.21	0.	6.89	1.589	-21.	0	139
20821 STIRL	DISTILL	6.	1.00	0.205 0.24	7.0	0.52	0.22	0.58	3.88	0.	0.	5.20	1.200	-3.	193	0
20821 STIRL	DISTILL	6.	2.90	0.341 0.24	10.9	0.81	0.34	0.58	5.58	0.	-1.75	5.56	1.283	-6.	0	58
20821 STIRL	RESIDUA	6.	1.00	0.205 0.24	7.0	0.52	0.22	0.59	3.16	0.	0.	4.49	1.036	-0.	-44	0
20821 STIRL	RESIDUA	6.	2.90	0.341 0.24	10.9	0.81	0.34	0.58	4.56	0.	-1.75	4.54	1.046	-2.	0	999
20821 STIRL	COAL	6.	1.00	0.205 0.24	13.9	1.03	0.44	1.05	1.84	0.	0.	4.36	1.005	-3.	5	14
20821 STIRL	COAL	6.	2.90	0.341 0.24	18.4	1.36	0.58	1.02	2.65	0.	-1.75	3.86	0.890	-4.	8	10
20821 HEGT85	COAL-AF	6.	1.00	0.197 0.24	24.2	1.84	0.78	1.21	1.85	0.	0.	5.68	1.311	-12.	0	999
20821 HEGT85	COAL-AF	6.	3.13	0.337 0.24	40.0	3.03	1.29	1.44	2.80	0.	-1.96	6.60	1.523	-23.	0	999
20821 HEGT60	COAL-AF	6.	1.00	0.123 0.24	24.0	1.82	0.78	1.22	2.02	0.	0.	5.85	1.348	-13.	[illegible]	504

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
						********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********											
20821 HEGT60	COAL-AF	6.	2.84	0.204	0.24	37.2	2.83	1.20	1.41	3.16	0.	-1.70	6.89	1.590	-22.	0	999
20821 HEGT00	COAL-AF	6.	1.00	0.113	0.24	22.2	1.68	0.72	1.14	2.05	0.	0.	5.59	1.289	-11.	0	999
20821 HEGT00	COAL-AF	6.	1.42	0.138	0.24	23.6	1.79	0.76	0.99	2.31	0.	-0.38	5.47	1.261	-11.	0	999
20821 FCMCCL	COAL	6.	1.00	0.209	0.24	21.3	1.66	0.70	1.25	1.83	0.	0.	5.44	1.254	-11.	0	999
20821 FCMCCL	COAL	6.	2.67	0.338	0.24	28.9	2.24	0.95	1.41	2.52	0.	-1.53	5.59	1.290	-15.	0	999
20821 FCSTCL	COAL	6.	1.00	0.217	0.24	20.6	1.60	0.68	1.28	1.81	0.	0.	5.37	1.239	-10.	0	999
20821 FCSTCL	COAL	6.	4.71	0.419	0.24	37.4	2.91	1.24	1.86	3.28	0.	-3.41	5.87	1.355	-20.	0	29
20821 IGGTST	COAL	6.	1.00	0.178	0.24	20.8	1.62	0.69	1.27	1.90	0.	0.	5.47	1.262	-10.	0	999
20821 IGGTST	COAL	6.	3.38	0.312	0.24	30.7	2.39	1.02	1.32	3.05	0.	-2.19	5.59	1.290	-16.	0	999
20821 GTSOAR	RESIDUA	6.	1.00	0.189	0.24	7.6	0.56	0.24	0.57	3.22	0.	0.	4.59	1.059	-1.	0	56
20821 GTSOAR	RESIDUA	6.	2.66	0.306	0.24	9.9	0.73	0.31	0.50	4.54	0.	-1.53	4.56	1.051	-2.	0	106
20821 GTAC08	RESIDUA	6.	1.00	0.204	0.24	6.9	0.51	0.22	0.54	3.17	0.	0.	4.43	1.023	-0.	-20	0
20821 GTAC08	RESIDUA	6.	2.21	0.307	0.24	7.9	0.59	0.25	0.45	4.06	0.	-1.12	4.22	0.974	0.	17	6
20821 GTAC12	RESIDUA	6.	1.00	0.208	0.24	6.9	0.51	0.22	0.55	3.15	0.	0.	4.43	1.022	-0.	-22	0
20821 GTAC12	RESIDUA	6.	2.69	0.337	0.24	9.0	0.66	0.28	0.48	4.37	0.	-1.56	4.23	0.977	-0.	9	9
20821 GTAC16	RESIDUA	6.	1.00	0.207	0.24	7.2	0.53	0.23	0.55	3.15	0.	0.	4.46	1.029	-0.	-67	0
20821 GTAC16	RESIDUA	6.	3.00	0.350	0.24	10.0	0.74	0.32	0.51	4.60	0.	-1.84	4.32	0.998	-1.	5	13
20821 GTWC16	RESIDUA	6.	1.00	0.181	0.24	7.5	0.55	0.24	0.56	3.25	0.	0.	4.61	1.063	-1.	0	55
20821 GTWC16	RESIDUA	6.	3.26	0.315	0.24	10.7	0.79	0.34	0.54	5.12	0.	-2.08	4.70	1.084	-3.	0	78
20821 CC1626	RESIDUA	6.	1.00	0.183	0.24	7.7	0.58	0.25	0.65	3.25	0.	0.	4.72	1.090	-2.	0	57
20821 CC1626	RESIDUA	6.	5.85	0.371	0.24	15.6	1.18	0.50	0.81	7.21	0.	-4.47	5.24	1.208	-7.	0	97
20821 CC1622	RESIDUA	6.	1.00	0.192	0.24	7.4	0.56	0.24	0.64	3.21	0.	0.	4.65	1.073	-1.	0	57
20821 CC1622	RESIDUA	6.	5.28	0.380	0.24	14.6	1.11	0.47	0.76	6.57	0.	-3.94	4.97	1.147	-6.	0	***
20821 CC1222	RESIDUA	6.	1.00	0.194	0.24	7.2	0.55	0.23	0.64	3.21	0.	0.	4.62	1.066	-1.	0	56
20821 CC1222	RESIDUA	6.	5.27	0.383	0.24	14.0	1.06	0.45	0.75	6.52	0.	-3.93	4.85	1.119	-5.	0	999
20821 CC0822	RESIDUA	6.	1.00	0.207	0.24	7.4	0.56	0.24	0.64	3.15	0.	0.	4.59	1.058	-1.	0	57
20821 CC0822	RESIDUA	6.	4.26	0.389	0.24	12.1	0.92	0.39	0.69	5.51	0.	-3.00	4.51	1.040	-3.	1	22
20821 STIG15	RESIDUA	6.	1.00	0.067	0.24	7.7	0.57	0.24	0.62	3.71	0.	0.	5.14	1.186	-3.	0	56
20821 STIG15	RESIDUA	6.	122.30	0.171	0.24	196.6	14.56	6.19	10.73	158.84	0.	-111.68	78.64	18.140	-322.	0	59
20821 STIG10	RESIDUA	6.	1.00	0.096	0.24	7.4	0.55	0.23	0.60	3.59	0.	0.	4.97	1.146	-2.	0	56
20821 STIG10	RESIDUA	6.	11.31	0.218	0.24	22.7	1.68	0.71	1.27	15.58	0.	-9.49	9.76	2.252	-24.	0	59
20821 STIG1S	RESIDUA	6.	1.00	0.110	0.24	7.2	0.54	0.23	0.60	3.54	0.	0.	4.90	1.130	-2.	999	0
20821 STIG1S	RESIDUA	6.	6.64	0.228	0.24	15.4	1.14	0.49	0.92	9.80	0.	-5.19	7.15	1.650	-13.	0	59
20821 DEADV3	RESIDUA	6.	1.00	0.201	0.24	9.4	0.70	0.30	0.64	3.18	0.	0.	4.81	1.110	-3.	0	61
20821 DEADV3	RESIDUA	6.	4.15	0.374	0.24	17.5	1.30	0.55	0.77	5.54	0.	-2.90	5.25	1.211	-8.	0	163
20821 DEHTPM	RESIDUA	6.	1.00	0.224	0.24	9.4	0.69	0.29	0.67	3.08	0.	0.	4.74	1.094	-2.	0	64
20821 DEHTPM	RESIDUA	6.	3.47	0.397	0.24	15.0	1.11	0.47	0.74	4.70	0.	-2.27	4.75	1.097	-5.	0	999
20821 DESOA3	DISTILL	6.	1.00	0.192	0.24	8.8	0.66	0.28	0.63	3.94	0.	0.	5.50	1.268	-4.	0	57
20821 DESOA3	DISTILL	6.	4.12	0.358	0.24	21.3	1.58	0.67	0.87	6.92	0.	-2.87	7.16	1.652	-15.	0	63
20821 DESOA3	RESIDUA	6.	1.00	0.192	0.24	8.8	0.66	0.28	0.63	3.21	0.	0.	4.77	1.101	-2.	0	60
20821 DESOA3	RESIDUA	6.	4.12	0.358	0.24	21.3	1.58	0.67	0.87	5.65	0.	-2.87	5.89	1.358	-11.	0	86
20821 GTSOAD	DISTILL	6.	1.00	0.201	0.24	6.7	0.49	0.21	0.54	3.89	0.	0.	5.13	1.184	-2.	-70	0
20821 GTSOAD	DISTILL	6.	2.56	0.321	0.24	8.0	0.60	0.25	0.45	5.32	0.	-1.44	5.18	1.195	-3.	0	56
20821 GTRA08	DISTILL	6.	1.00	0.195	0.24	7.9	0.58	0.25	0.57	3.92	0.	0.	5.33	1.229	-3.	0	56

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
20821 GTRA08	DISTILL	6.	3.96	0.358 0.24	13.0	0.96	0.41	0.60	6.72	0.	-2.72	5.97	1.377	-8.	0	59
20821 GTRA12	DISTILL	6.	1.00	0.197 0.24	7.8	0.58	0.25	0.57	3.91	0.	0.	5.31	1.225	-3.	0	56
20821 GTRA12	DISTILL	6.	3.92	0.362 0.24	13.1	0.97	0.41	0.60	6.64	0.	-2.69	5.93	1.369	-8.	0	60
20821 GTRA16	DISTILL	6.	1.00	0.197 0.24	8.1	0.60	0.25	0.58	3.91	0.	0.	5.34	1.232	-4.	0	56
20821 GTRA16	DISTILL	6.	3.70	0.356 0.24	13.3	0.98	0.42	0.60	6.44	0.	-2.49	5.95	1.372	-8.	0	60
20821 GTR208	DISTILL	6.	1.00	0.196 0.24	7.5	0.55	0.24	0.56	3.92	0.	0.	5.27	1.215	-3.	0	56
20821 GTR208	DISTILL	6.	3.12	0.335 0.24	10.5	0.78	0.33	0.53	5.91	0.	-1.95	5.60	1.292	-5.	0	58
20821 GTR212	DISTILL	6.	1.00	0.194 0.24	7.6	0.57	0.24	0.57	3.93	0.	0.	5.30	1.223	-3.	0	56
20821 GTR212	DISTILL	6.	3.35	0.340 0.24	11.4	0.84	0.36	0.55	6.16	0.	-2.16	5.75	1.326	-6.	0	58
20821 GTR216	DISTILL	6.	1.00	0.198 0.24	7.8	0.58	0.24	0.57	3.91	0.	0.	5.30	1.222	-3.	0	56
20821 GTR216	DISTILL	6.	3.42	0.349 0.24	12.0	0.89	0.38	0.57	6.16	0.	-2.23	5.77	1.330	-7.	0	59
20821 GTRW08	DISTILL	6.	1.00	0.163 0.24	8.0	0.59	0.25	0.58	4.08	0.	0.	5.51	1.270	-4.	0	56
20821 GTRW08	DISTILL	6.	4.76	0.314 0.24	14.4	1.06	0.45	0.66	8.23	0.	-3.46	6.94	1.600	-11.	0	58
20821 GTRW12	DISTILL	6.	1.00	0.171 0.24	8.0	0.59	0.25	0.58	4.04	0.	0.	5.46	1.260	-4.	0	56
20821 GTRW12	DISTILL	6.	4.91	0.334 0.24	14.6	1.08	0.46	0.66	8.19	0.	-3.60	6.79	1.566	-11.	0	59
20821 GTRW16	DISTILL	6.	1.00	0.173 0.24	8.2	0.61	0.26	0.58	4.03	0.	0.	5.48	1.264	-4.	0	56
20821 GTRW16	DISTILL	6.	4.62	0.331 0.24	14.6	1.08	0.46	0.66	7.84	0.	-3.33	6.71	1.549	-11.	0	59
20821 GTR308	DISTILL	6.	1.00	0.158 0.24	7.6	0.56	0.24	0.57	4.10	0.	0.	5.47	1.263	-4.	0	56
20821 GTR308	DISTILL	6.	3.58	0.282 0.24	11.5	0.85	0.36	0.57	7.01	0.	-2.38	6.41	1.479	-8.	0	57
20821 GTR312	DISTILL	6.	1.00	0.174 0.24	7.7	0.57	0.24	0.57	4.03	0.	0.	5.41	1.248	-4.	0	56
20821 GTR312	DISTILL	6.	4.11	0.323 0.24	12.5	0.92	0.39	0.60	7.30	0.	-2.87	6.34	1.462	-9.	0	58
20821 GTR316	DISTILL	6.	1.00	0.173 0.24	7.9	0.59	0.25	0.58	4.03	0.	0.	5.44	1.256	-4.	0	56
20821 GTR316	DISTILL	6.	4.05	0.320 0.24	12.9	0.96	0.41	0.61	7.25	0.	-2.81	6.41	1.479	-9.	0	58
20821 FCPADS	DISTILL	6.	1.00	0.199 0.24	7.6	0.56	0.24	0.92	3.90	0.	0.	5.63	1.298	-4.	0	57
20821 FCPADS	DISTILL	6.	4.43	0.378 0.24	16.7	1.24	0.53	2.52	7.06	0.	-3.15	8.19	1.889	-17.	0	61
20821 FCMCDS	DISTILL	6.	1.00	0.170 0.24	8.2	0.61	0.26	0.91	4.05	0.	0.	5.82	1.343	-5.	0	57
20821 FCMCDS	DISTILL	6.	7.38	0.360 0.24	29.3	2.17	0.92	3.91	10.86	0.	-5.87	11.99	2.765	-35.	0	61
22601 ONOCGN	COAL-FG	6.	0.	0. 0.13	13.5	1.02	0.43	0.87	2.45	1.49	0.	6.27	1.000	0.	0	0
22601 STM141	RESIDUA	6.	1.00	0.164 0.13	9.1	0.69	0.29	0.76	4.78	0.	0.	6.53	1.042	1.	-9	0
22601 STM141	RESIDUA	6.	1.61	0.227 0.13	8.8	0.67	0.28	0.60	5.13	0.	-0.54	6.13	0.979	3.	-2	0
22601 STM141	COAL-FG	6.	1.00	0.164 0.13	19.3	1.47	0.62	1.40	2.78	0.	0.	6.27	1.001	-3.	5	14
22601 STM141	COAL-FG	6.	1.61	0.227 0.13	17.4	1.32	0.56	1.11	2.98	0.	-0.54	5.42	0.866	1.	18	6
22601 STM141	COAL-AF	6.	1.00	0.164 0.13	16.7	1.27	0.54	1.29	2.78	0.	0.	5.87	0.937	-0.	13	7
22601 STM141	COAL-AF	6.	1.61	0.227 0.13	13.2	1.00	0.43	0.97	2.98	0.	-0.54	4.83	0.770	5.	999	0
22601 STM088	RESIDUA	6.	1.00	0.164 0.13	8.4	0.64	0.27	0.72	4.78	0.	0.	6.41	1.024	2.	-7	0
22601 STM088	RESIDUA	6.	1.18	0.184 0.13	7.8	0.59	0.25	0.57	4.89	0.	-0.16	6.13	0.979	3.	-3	0
22601 STM088	COAL-FG	6.	1.00	0.164 0.13	18.0	1.37	0.58	1.32	2.78	0.	0.	6.04	0.965	-2.	8	10
22601 STM088	COAL-FG	6.	1.18	0.184 0.13	16.0	1.21	0.52	1.05	2.84	0.	-0.16	5.46	0.872	1.	23	5
22601 STM088	COAL-AF	6.	1.00	0.164 0.13	15.0	1.14	0.48	1.21	2.78	0.	0.	5.60	0.895	1.	28	4
22601 STM088	COAL-AF	6.	1.18	0.184 0.13	12.4	0.94	0.40	0.93	2.84	0.	-0.16	4.95	0.791	5.	999	0
22601 PFBSTM	COAL-PF	6.	1.00	0.160 0.13	20.6	1.56	0.67	1.48	2.79	0.	0.	6.50	1.037	-4.	2	21
22601 PFBSTM	COAL-PF	6.	2.57	0.292 0.13	21.3	1.62	0.69	1.45	3.32	0.	-1.41	5.67	0.905	-2.	10	9
22601 TISTMT	RESIDUA	6.	1.00	0.161 0.13	23.2	1.76	0.75	1.11	4.80	0.	0.	8.42	1.344	-11.	0	62
22601 TISTMT	RESIDUA	6.	3.42	0.337 0.13	48.8	3.71	1.58	1.63	6.21	0.	-2.17	10.95	1.748	-32.	0	74

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC,	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
22601	TISTMT	COAL	6.	1.00	0.161 0.13	34.8	2.64	1.12	1.78	2.79	0.	0.	8.33	1.330	-17.	0	167
22601	TISTMT	COAL	6.	3.42	0.337 0.13	62.0	4.71	2.00	2.27	3.60	0.	-2.17	10.42	1.663	-36.	0	999
22601	TIHRSG	RESIDUA	6.	1.00	0.125 0.13	32.0	2.37	1.01	1.24	5.01	0.	0.	9.62	1.536	-19.	0	64
22601	TIHRSG	RESIDUA	6.	1.61	0.173 0.13	42.2	3.12	1.33	1.34	5.49	0.	-0.54	10.73	1.712	-27.	0	67
22601	TIHRSG	COAL	6.	1.00	0.125 0.13	44.6	3.39	1.44	1.93	2.91	0.	0.	9.67	1.543	-26.	0	97
22601	TIHRSG	COAL	6.	1.61	0.173 0.13	54.2	4.11	1.75	1.93	3.19	0.	-0.54	10.43	1.665	-33.	0	109
22601	STIRL	DISTILL	6.	1.00	0.117 0.13	10.0	0.74	0.32	0.73	6.19	0.	0.	7.98	1.273	-4.	-30	0
22601	STIRL	DISTILL	6.	4.09	0.265 0.13	18.4	1.36	0.58	0.84	9.33	0.	-2.76	9.36	1.494	-12.	0	57
22601	STIRL	RESIDUA	6.	1.00	0.117 0.13	10.0	0.74	0.32	0.73	5.05	0.	0.	6.84	1.092	-0.	-15	0
22601	STIRL	RESIDUA	6.	4.09	0.265 0.13	18.4	1.37	0.58	0.84	7.61	0.	-2.76	7.64	1.220	-6.	0	59
22601	STIRL	COAL	6.	1.00	0.117 0.13	19.9	1.47	0.63	1.35	2.93	0.	0.	6.38	1.019	-3.	3	17
22601	STIRL	COAL	6.	4.09	0.265 0.13	32.5	2.41	1.02	1.54	4.42	0.	-2.76	6.63	1.059	-10.	3	17
22601	HEGT85	COAL-AF	6.	1.00	0.049 0.13	29.8	2.26	0.96	1.50	3.16	0.	0.	7.89	1.259	-13.	0	136
22601	HEGT85	COAL-AF	6.	15.45	0.157 0.13	126.2	9.58	4.07	4.42	13.42	0.	-12.91	18.57	2.964	-93.	0	96
22601	HEGT60	COAL-AF	6.	1.00	0.058 0.13	29.0	2.20	0.94	1.49	3.13	0.	0.	7.75	1.238	-12.	0	172
22601	HEGT60	COAL-AF	6.	6.17	0.151 0.13	65.5	4.97	2.11	2.41	6.64	0.	-4.62	11.51	1.837	-41.	0	118
22601	HEGT00	COAL-AF	6.	1.00	0.063 0.13	27.7	2.10	0.89	1.46	3.11	0.	0.	7.57	1.208	-11.	0	322
22601	HEGT00	COAL-AF	6.	2.66	0.116 0.13	37.5	2.84	1.21	1.51	4.21	0.	-1.48	8.29	1.324	-18.	0	999
22601	FCMCCL	COAL	6.	1.00	0.140 0.13	27.0	2.10	0.89	1.52	2.86	0.	0.	7.37	1.176	-10.	0	999
22601	FCMCCL	COAL	6.	4.79	0.337 0.13	44.7	3.47	1.48	2.15	4.39	0.	-3.39	8.11	1.294	-21.	0	999
22601	FCSTCL	COAL	6.	1.00	0.146 0.13	26.3	2.04	0.87	1.55	2.84	0.	0.	7.30	1.166	-10.	0	999
22601	FCSTCL	COAL	6.	7.39	0.402 0.13	54.4	4.23	1.80	2.67	5.32	0.	-5.71	8.30	1.326	-27.	0	29
22601	IGGTST	COAL	6.	1.00	0.116 0.13	26.3	2.04	0.87	1.54	2.94	0.	0.	7.39	1.180	-10.	0	999
22601	IGGTST	COAL	6.	5.16	0.286 0.13	43.5	3.38	1.44	1.74	4.96	0.	-3.71	7.81	1.246	-20.	0	30
22601	GTSOAR	RESIDUA	6.	1.00	0.120 0.13	9.8	0.72	0.31	0.68	5.04	0.	0.	6.75	1.077	0.	-13	0
22601	GTSOAR	RESIDUA	6.	5.02	0.293 0.13	15.9	1.17	0.50	0.72	8.31	0.	-3.59	7.12	1.136	-4.	0	57
22601	GTAC08	RESIDUA	6.	1.00	0.139 0.13	9.1	0.67	0.29	0.66	4.92	0.	0.	6.54	1.045	1.	-9	0
22601	GTAC08	RESIDUA	6.	3.93	0.309 0.13	12.3	0.91	0.39	0.62	6.98	0.	-2.61	6.29	1.003	1.	-6	0
22601	GTAC12	RESIDUA	6.	1.00	0.138 0.13	9.1	0.67	0.29	0.66	4.93	0.	0.	6.55	1.046	1.	-9	0
22601	GTAC12	RESIDUA	6.	4.90	0.334 0.13	14.4	1.07	0.45	0.68	7.71	0.	-3.48	6.42	1.026	-1.	0	55
22601	GTAC16	RESIDUA	6.	1.00	0.136 0.13	9.3	0.69	0.29	0.67	4.94	0.	0.	6.59	1.052	1.	-10	0
22601	GTAC16	RESIDUA	6.	5.54	0.343 0.13	16.4	1.21	0.51	0.73	8.23	0.	-4.06	6.64	1.060	-2.	0	64
22601	GTWC16	RESIDUA	6.	1.00	0.123 0.13	9.6	0.71	0.30	0.68	5.02	0.	0.	6.71	1.071	1.	-12	0
22601	GTWC16	RESIDUA	6.	5.82	0.315 0.13	16.5	1.22	0.52	0.75	8.87	0.	-4.30	7.05	1.125	-4.	0	59
22601	CC1626	RESIDUA	6.	1.00	0.122 0.13	9.7	0.73	0.31	0.76	5.03	0.	0.	6.83	1.089	0.	-14	0
22601	CC1626	RESIDUA	6.	9.29	0.356 0.13	22.4	1.70	0.72	1.05	11.71	0.	-7.41	7.77	1.240	-9.	0	66
22601	CC1622	RESIDUA	6.	1.00	0.127 0.13	9.4	0.71	0.30	0.75	4.99	0.	0.	6.76	1.078	0.	-13	0
22601	CC1622	RESIDUA	6.	8.36	0.364 0.13	21.6	1.64	0.70	1.01	10.67	0.	-6.58	7.44	1.187	-8.	0	70
22601	CC1222	RESIDUA	6.	1.00	0.129 0.13	9.2	0.70	0.30	0.74	4.98	0.	0.	6.72	1.073	1.	-12	0
22601	CC1222	RESIDUA	6.	8.33	0.367 0.13	20.5	1.55	0.66	0.99	10.59	0.	-6.55	7.25	1.156	-6.	0	71
22601	CC0822	RESIDUA	6.	1.00	0.138 0.13	9.4	0.71	0.30	0.75	4.93	0.	0.	6.70	1.069	1.	-12	0
22601	CC0822	RESIDUA	6.	6.64	0.369 0.13	17.4	1.32	0.56	0.89	8.95	0.	-5.04	6.68	1.066	-3.	0	90
22601	STIG15	RESIDUA	6.	1.00	0.045 0.13	9.6	0.71	0.30	0.72	5.46	0.	0.	7.20	1.149	-1.	-18	0
22601	STIG15	RESIDUA	6.	218.90	0.171 0.13	345.3	25.57	10.87	18.28	275.90	0.	-194.69	135.93	21.697	-563.	0	59

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
22601	STIG10	RESIDUA	6.	1.00	0.065 0.13	9.3	0.69	0.29	0.70	5.35	0.	0.	7.03	1.122	-0.	-16	0
22601	STIG10	RESIDUA	6.	20.24	0.218 0.13	39.8	2.95	1.25	2.02	27.07	0.	-17.19	16.10	2.570	-43.	0	59
22601	STIG1S	RESIDUA	6.	1.00	0.074 0.13	9.2	0.68	0.29	0.70	5.30	0.	0.	6.97	1.112	-0.	-15	0
22601	STIG1S	RESIDUA	6.	11.88	0.228 0.13	24.2	1.79	0.76	1.36	17.01	0.	-9.72	11.22	1.790	-20.	0	58
22601	DEADV3	RESIDUA	6.	1.00	0.093 0.13	12.1	0.90	0.38	0.77	5.19	0.	0.	7.24	1.155	-2.	-35	0
22601	DEADV3	RESIDUA	6.	12.85	0.292 0.13	53.4	3.95	1.68	1.84	16.64	0.	-10.59	13.52	2.158	-41.	0	64
22601	DEHTPM	RESIDUA	6.	1.00	0.139 0.13	12.2	0.90	0.38	0.81	4.93	0.	0.	7.02	1.120	-2.	-30	0
22601	DEHTPM	RESIDUA	6.	5.85	0.358 0.13	28.0	2.07	0.88	1.16	8.35	0.	-4.33	8.13	1.297	-12.	0	73
22601	DESOA3	DISTILL	6.	1.00	0.079 0.13	11.6	0.86	0.37	0.76	6.45	0.	0.	8.45	1.348	-6.	-55	0
22601	DESOA3	DISTILL	6.	14.85	0.255 0.13	75.9	5.62	2.39	2.43	24.22	0.	-12.38	22.28	3.556	-79.	0	61
22601	DESOA3	RESIDUA	6.	1.00	0.079 0.13	11.6	0.86	0.37	0.76	5.27	0.	0.	7.26	1.158	-2.	-30	0
22601	DESOA3	RESIDUA	6.	14.85	0.255 0.13	75.9	5.62	2.39	2.43	19.76	0.	-12.38	17.82	2.844	-65.	0	64
22601	GTSOAD	DISTILL	6.	1.00	0.132 0.13	8.8	0.65	0.28	0.66	6.09	0.	0.	7.68	1.226	-2.	-21	0
22601	GTSOAD	DISTILL	6.	4.71	0.314 0.13	12.8	0.95	0.40	0.64	9.49	0.	-3.31	8.17	1.305	-5.	-97	0
22601	GTRA08	DISTILL	6.	1.00	0.123 0.13	10.0	0.74	0.31	0.68	6.15	0.	0.	7.89	1.259	-3.	-28	0
22601	GTRA08	DISTILL	6.	7.70	0.343 0.13	21.4	1.58	0.67	0.89	12.69	0.	-5.98	9.85	1.573	-15.	0	58
22601	GTRA12	DISTILL	6.	1.00	0.126 0.13	9.9	0.74	0.31	0.68	6.13	0.	0.	7.86	1.254	-3.	-28	0
22601	GTRA12	DISTILL	6.	7.54	0.349 0.13	21.6	1.60	0.68	0.89	12.39	0.	-5.84	9.72	1.551	-14.	0	58
22601	GTRA16	DISTILL	6.	1.00	0.126 0.13	10.[illegible]	0.75	0.32	0.69	6.13	0.	0.	7.89	1.259	-3.	-29	0
22601	GTRA16	DISTILL	6.	7.05	0.345 0.13	21.7	1.61	0.68	0.89	11.89	0.	-5.40	9.67	1.543	-14.	0	58
22601	GTR208	DISTILL	6.	1.00	0.126 0.13	9.6	0.71	0.30	0.68	6.13	0.	0.	7.82	1.248	-3.	-26	0
22601	GTR208	DISTILL	6.	5.86	0.324 0.13	17.1	1.26	0.54	0.76	10.77	0.	-4.34	8.99	1.436	-10.	0	56
22601	GTR212	DISTILL	6.	1.00	0.125 0.13	9.8	0.72	0.31	0.68	6.13	0.	0.	7.84	1.252	-3.	-27	0
22601	GTR212	DISTILL	6.	6.28	0.330 0.13	18.4	1.36	0.58	0.80	11.21	0.	-4.72	9.23	1.473	-11.	0	57
22601	GTR216	DISTILL	6.	1.00	0.128 0.13	9.9	0.73	0.31	0.68	6.12	0.	0.	7.84	1.252	-3.	-27	0
22601	GTR216	DISTILL	6.	6.44	0.339 0.13	19.6	1.45	0.62	0.83	11.24	0.	-4.86	9.28	1.481	-12.	0	57
22601	GTRW08	DISTILL	6.	1.00	0.103 0.13	10.1	0.75	0.32	0.69	6.29	0.	0.	8.04	1.283	-4.	-31	0
22601	GTRW08	DISTILL	6.	9.20	0.302 0.13	23.2	1.72	0.73	0.96	15.43	0.	-7.33	11.51	1.837	-21.	0	57
22601	GTRW12	DISTILL	6.	1.00	0.110 0.13	10.1	0.75	0.32	0.69	6.24	0.	0.	7.99	1.275	-4.	-30	0
22601	GTRW12	DISTILL	6.	9.38	0.324 0.13	23.4	1.73	0.74	0.96	15.17	0.	-7.49	11.11	1.774	-20.	0	58
22601	GTRW16	DISTILL	6.	1.00	0.112 0.13	10.3	0.76	0.32	0.69	6.23	0.	0.	8.00	1.278	-4.	-32	0
22601	GTRW16	DISTILL	6.	8.72	0.322 0.13	23.2	1.72	0.73	0.95	14.38	0.	-6.90	10.88	1.737	-19.	0	58
22601	GTR308	DISTILL	6.	1.00	0.096 0.13	9.7	0.72	0.30	0.68	6.34	0.	0.	8.04	1.283	-4.	-29	0
22601	GTR308	DISTILL	6.	7.03	0.263 0.13	18.9	1.40	0.59	0.83	13.35	0.	-5.39	10.78	1.721	-16.	0	57
22601	GTR312	DISTILL	6.	1.00	0.114 0.13	9.8	0.72	0.31	0.68	6.22	0.	0.	7.93	1.265	-3.	-28	0
22601	GTR312	DISTILL	6.	7.63	0.316 0.13	19.7	1.46	0.62	0.85	13.13	0.	-5.92	10.13	1.618	-15.	0	57
22601	GTR316	DISTILL	6.	1.00	0.113 0.13	10.0	0.74	0.32	0.69	6.22	0.	0.	7.96	1.271	-4.	-29	0
22601	GTR316	DISTILL	6.	7.51	0.313 0.13	20.3	1.51	0.64	0.87	13.05	0.	-5.82	10.24	1.634	-15.	0	57
22601	FCPADS	DISTILL	6.	1.00	0.086 0.13	10.3	0.77	0.33	1.04	6.41	0.	0.	8.54	1.364	-6.	-40	0
22601	FCPADS	DISTILL	6.	16.70	0.279 0.13	61.2	4.53	1.93	8.93	25.86	0.	-14.02	27.23	4.347	-89.	0	60
22601	FCMCDS	DISTILL	6.	1.00	0.114 0.13	10.6	0.78	0.33	1.01	6.21	0.	0.	8.34	1.331	-5.	-39	0
22601	FCMCDS	DISTILL	6.	13.21	0.360 0.13	52.6	3.89	1.65	6.75	18.87	0.	-10.91	20.26	3.234	-63.	0	61
24211	ONOCGN	RESIDUA	2.	0.	0. 0.17	1.8	0.13	0.06	0.21	0.	0.23	0.	0.63	1.000	0.	0	0
24211	STM141	RESIDUA	2.	1.00	0.991 0.17	3.3	0.25	0.11	0.38	0.00	0.	0.	0.74	1.176	-1.	0	999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
24211	STM141	RESIDUA	2.	1.14	0.947 0.17	3.1	0.23	0.10	0.30	0.01	0.	-0.02	0.63	1.005	-1.	5	14
24211	STM141	COAL-FG	2.	1.00	0.991 0.17	6.1	0.46	0.20	0.62	0.00	0.	0.	1.29	2.045	-4.	0	77
24211	STM141	COAL-FG	2.	1.14	0.947 0.17	5.5	0.41	0.18	0.49	0.01	0.	-0.02	1.07	1.701	-3.	0	98
24211	STM141	COAL-AF	2.	1.00	0.991 0.17	5.5	0.42	0.18	0.56	0.00	0.	0.	1.16	1.847	-4.	0	81
24211	STM141	COAL-AF	2.	1.14	0.947 0.17	4.8	0.36	0.15	0.42	0.01	0.	-0.02	0.93	1.478	-2.	0	212
24211	STM088	RESIDUA	2.	0.81	0.810 0.17	2.6	0.20	0.08	0.29	0.	0.04	0.	0.62	0.982	-0.	6	12
24211	STM088	COAL-FG	2.	0.81	0.810 0.17	5.0	0.38	0.16	0.47	0.	0.04	0.	1.05	1.675	-3.	0	85
24211	STM088	COAL-AF	2.	0.81	0.810 0.17	4.5	0.34	0.14	0.41	0.	0.04	0.	0.94	1.492	-2.	0	107
24211	PFBSTM	COAL-PF	2.	1.00	0.977 0.17	7.5	0.57	0.24	0.67	0.00	0.	0.	1.48	2.360	-5.	0	76
24211	PFBSTM	COAL-PF	2.	1.89	0.804 0.17	7.3	0.55	0.23	0.53	0.05	0.	-0.12	1.24	1.970	-5.	0	106
24211	TISTMT	RESIDUA	2.	1.00	-0.257 0.17	8.4	0.63	0.27	0.53	0.29	0.	0.	1.73	2.749	-7.	0	68
24211	TISTMT	COAL	2.	1.00	0.981 0.17	12.2	0.93	0.39	0.81	0.00	0.	0.	2.13	3.396	-10.	0	75
24211	TISTMT	COAL	2.	2.53	0.758 0.17	18.1	1.37	0.58	0.83	0.08	0.	-0.21	2.65	4.217	-14.	0	82
24211	TIHRSG	RESIDUA	2.	1.00	-1.274 0.17	11.0	0.82	0.35	0.52	0.53	0.	0.	2.21	3.519	-9.	0	66
24211	TIHRSG	COAL	2.	1.00	0.833 0.17	15.0	1.14	0.48	0.78	0.02	0.	0.	2.43	3.871	-12.	0	76
24211	TIHRSG	COAL	2.	1.27	0.755 0.17	16.0	1.22	0.52	0.67	0.04	0.	-0.04	2.41	3.841	-12.	0	80
24211	STIRL	DISTILL	2.	1.00	-0.255 0.17	2.9	0.22	0.09	0.35	0.36	0.	0.	1.02	1.623	-2.	0	61
24211	STIRL	RESIDUA	2.	1.00	-0.255 0.17	2.9	0.22	0.09	0.35	0.29	0.	0.	0.95	1.518	-2.	0	62
24211	STIRL	COAL	2.	1.00	0.813 0.17	6.3	0.47	0.20	0.61	0.03	0.	0.	1.30	2.075	-4.	0	75
24211	STIRL	COAL	2.	3.15	0.562 0.17	6.7	0.50	0.21	0.50	0.19	0.	-0.30	1.10	1.743	-4.	0	208
24211	HEGT85	COAL-AF	2.	1.00	0.532 0.17	10.7	0.81	0.34	0.66	0.06	0.	0.	1.87	2.979	-8.	0	75
24211	HEGT85	COAL-AF	2.	13.66	0.192 0.17	42.3	3.21	1.37	1.46	1.49	0.	-1.75	5.77	9.190	-36.	0	78
24211	HEGT60	COAL-AF	2.	1.00	0.572 0.17	10.3	0.78	0.33	0.65	0.06	0.	0.	1.82	2.898	-8.	0	76
24211	HEGT60	COAL-AF	2.	5.01	0.278 0.17	20.8	1.58	0.67	0.79	0.49	0.	-0.56	2.98	4.738	-17.	0	81
24211	HEGT00	COAL-AF	2.	1.00	0.601 0.17	9.7	0.73	0.31	0.62	0.05	0.	0.	1.72	2.733	-7.	0	76
24211	HEGT00	COAL-AF	2.	2.10	0.408 0.17	11.7	0.88	0.38	0.51	0.17	0.	-0.15	1.79	2.842	-8.	0	86
24211	FCMCCL	COAL	2.	1.00	-1.673 0.17	9.3	0.72	0.31	0.64	0.36	0.	0.	2.03	3.238	-8.	0	67
24211	FCMCCL	COAL	2.	3.76	-0.053 0.17	13.8	1.07	0.45	0.65	0.54	0.	-0.38	2.33	3.703	-11.	0	74
24211	FCSTCL	COAL	2.	1.00	-1.653 0.17	9.1	0.71	0.30	0.69	0.36	0.	0.	2.06	3.276	-8.	0	66
24211	FCSTCL	COAL	2.	5.60	0.159 0.17	16.5	1.28	0.54	0.83	0.64	0.	-0.64	2.65	4.218	-14.	0	76
24211	IGGTST	COAL	2.	1.00	-1.770 0.17	9.6	0.75	0.32	0.75	0.37	0.	0.	2.19	3.478	-9.	0	66
24211	IGGTST	COAL	2.	3.87	-0.133 0.17	14.2	1.11	0.47	0.75	0.59	0.	-0.40	2.52	4.014	-12.	0	72
24211	GTSOAR	RESIDUA	2.	1.00	-0.103 0.17	3.4	0.25	0.11	0.34	0.26	0.	0.	0.96	1.526	-2.	0	65
24211	GTAC08	RESIDUA	2.	1.00	-0.185 0.17	3.1	0.23	0.10	0.33	0.28	0.	0.	0.93	1.486	-2.	0	63
24211	GTAC12	RESIDUA	2.	1.00	-0.049 0.17	3.1	0.23	0.10	0.33	0.24	0.	0.	0.90	1.431	-1.	0	65
24211	GTAC16	RESIDUA	2.	1.00	0.009 0.17	3.1	0.23	0.10	0.33	0.23	0.	0.	0.89	1.422	-1.	0	66
24211	GTWC16	RESIDUA	2.	1.00	-0.016 0.17	3.3	0.25	0.10	0.34	0.24	0.	0.	0.93	1.476	-2.	0	66
24211	CC1626	RESIDUA	2.	1.00	0.148 0.17	3.4	0.26	0.11	0.40	0.20	0.	0.	0.97	1.539	-2.	0	67
24211	CC1622	RESIDUA	2.	1.00	0.136 0.17	3.2	0.25	0.10	0.40	0.20	0.	0.	0.95	1.510	-2.	0	66
24211	CC1222	RESIDUA	2.	1.00	0.139 0.17	3.2	0.24	0.10	0.39	0.20	0.	0.	0.94	1.491	-2.	0	66
24211	CC0822	RESIDUA	2.	1.00	0.083 0.17	3.3	0.25	0.11	0.40	0.21	0.	0.	0.97	1.540	-2.	0	66
24211	STIG15	RESIDUA	2.	1.00	0.160 0.17	3.5	0.26	0.11	0.35	0.20	0.	0.	0.91	1.454	-2.	0	69
24211	STIG10	RESIDUA	2.	1.00	0.109 0.17	3.3	0.25	0.10	0.35	0.21	0.	0.	0.91	1.441	-2.	0	68
24211	STIG1S	RESIDUA	2.	1.00	0.045 0.17	3.3	0.24	0.10	0.35	0.22	0.	0.	0.91	1.455	-2.	0	67

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST · PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
24211 DEADV3	RESIDUA	2.	1.00	0.137 0.17	4.5	0.33	0.14	0.39	0.20	0.	0.	1.06	1.688	-3.	0	70
24211 DEHTPM	RESIDUA	2.	1.00	0.036 0.17	4.5	0.33	0.14	0.41	0.22	0.	0.	1.11	1.764	-3.	0	68
24211 DESOA3	DISTILL	2.	1.00	0.114 0.17	3.4	0.25	0.11	0.36	0.25	0.	0.	0.98	1.554	-2.	0	65
24211 DESOA3	RESIDUA	2.	1.00	0.114 0.17	3.4	0.25	0.11	0.36	0.21	0.	0.	0.93	1.480	-2.	0	68
24211 GTSOAD	DISTILL	2.	1.00	-0.096 0.17	3.0	0.22	0.09	0.33	0.31	0.	0.	0.96	1.528	-2.	0	62
24211 GTRA08	DISTILL	2.	1.00	0.104 0.17	3.5	0.26	0.11	0.34	0.26	0.	0.	0.97	1.544	-2.	0	66
24211 GTRA12	DISTILL	2.	1.00	0.106 0.17	3.4	0.25	0.11	0.34	0.26	0.	0.	0.96	1.524	-2.	0	65
24211 GTRA16	DISTILL	2.	1.00	0.083 0.17	3.5	0.26	0.11	0.34	0.26	0.	0.	0.98	1.555	-2.	0	65
24211 GTR208	DISTILL	2.	1.00	0.000 0.17	3.3	0.25	0.10	0.34	0.29	0.	0.	0.98	1.553	-2.	0	64
24211 GTR212	DISTILL	2.	1.00	0.030 0.17	3.4	0.25	0.11	0.34	0.28	0.	0.	0.97	1.551	-2.	0	64
24211 GTR216	DISTILL	2.	1.00	0.050 0.17	3.4	0.25	0.11	0.34	0.27	0.	0.	0.97	1.546	-2.	0	65
24211 GTRW08	DISTILL	2.	1.00	0.088 0.17	3.6	0.27	0.11	0.35	0.26	0.	0.	0.98	1.566	-2.	0	65
24211 GTRW12	DISTILL	2.	1.00	0.121 0.17	3.6	0.26	0.11	0.35	0.25	0.	0.	0.97	1.549	-2.	0	66
24211 GTRW16	DISTILL	2.	1.00	0.104 0.17	3.7	0.27	0.12	0.35	0.26	0.	0.	0.99	1.574	-2.	0	66
24211 GTR308	DISTILL	2.	1.00	-0.032 0.17	3.4	0.25	0.11	0.34	0.29	0.	0.	0.99	1.580	-2.	0	63
24211 GTR312	DISTILL	2.	1.00	0.064 0.17	3.5	0.26	0.11	0.34	0.27	0.	0.	0.97	1.550	-2.	0	65
24211 GTR316	DISTILL	2.	1.00	0.056 0.17	3.5	0.26	0.11	0.34	0.27	0.	0.	0.99	1.573	-2.	0	65
24211 FCPADS	DISTILL	2.	1.00	0.158 0.17	3.2	0.23	0.10	0.35	0.24	0.	0.	0.93	1.478	-2.	0	65
24211 FCNCDS	DISTILL	2.	1.00	0.223 0.17	3.2	0.24	0.10	0.35	0.22	0.	0.	0.91	1.445	-2.	0	67
24361 ONOCGN	COAL-AF	3.	0.	0. 0.14	6.5	0.50	0.21	0.58	0.	0.69	0.	1.98	1.000	0.	0	0
24361 STM141	RESIDUA	3.	1.00	0.991 0.14	5.3	0.40	0.17	0.51	0.01	0.	0.	1.09	0.551	3.	999	0
24361 STM141	RESIDUA	3.	1.06	0.970 0.14	5.0	0.38	0.16	0.42	0.02	0.	-0.02	0.96	0.485	4.	999	0
24361 STM141	COAL-FG	3.	1.00	0.991 0.14	10.5	0.80	0.34	0.88	0.00	0.	0.	2.03	1.023	-2.	4	15
24361 STM141	COAL-FG	3.	1.06	0.970 0.14	9.7	0.73	0.31	0.73	0.01	0.	-0.02	1.77	0.893	-1.	10	9
24361 STM141	COAL-AF	3.	1.00	0.991 0.14	8.7	0.66	0.28	0.79	0.00	0.	0.	1.74	0.878	-0.	12	8
24361 STM141	COAL-AF	3.	1.06	0.970 0.14	7.8	0.59	0.25	0.64	0.01	0.	-0.02	1.47	0.741	1.	27	4
24361 STM088	RESIDUA	3.	0.68	0.677 0.14	4.3	0.33	0.14	0.40	0.	0.22	0.	1.09	0.552	4.	999	0
24361 STM088	COAL-FG	3.	0.68	0.677 0.14	8.8	0.67	0.29	0.70	0.	0.22	0.	1.88	0.950	-1.	8	10
24361 STM088	COAL-AF	3.	0.68	0.677 0.14	7.3	0.55	0.24	0.61	0.	0.22	0.	1.63	0.822	1.	30	4
24361 PFBSTM	COAL-PF	3.	1.00	0.970 0.14	12.9	0.98	0.42	1.03	0.01	0.	0.	2.44	1.231	-5.	0	999
24361 PFBSTM	COAL-PF	3.	1.97	0.789 0.14	12.4	0.94	0.40	0.88	0.17	0.	-0.40	1.99	1.003	-3.	5	14
24361 TISTMT	RESIDUA	3.	1.00	-0.398 0.14	14.8	1.13	0.48	0.79	0.98	0.	0.	3.37	1.703	-8.	0	67
24361 TISTMT	COAL	3.	1.00	0.980 0.14	21.9	1.66	0.71	1.24	0.01	0.	0.	3.62	1.826	-13.	0	108
24361 TISTMT	COAL	3.	2.73	0.747 0.14	34.0	2.58	1.10	1.37	0.28	0.	-0.72	4.61	2.327	-21.	0	149
24361 TIHRSG	RESIDUA	3.	1.00	-1.274 0.14	18.9	1.40	0.59	0.81	1.59	0.	0.	4.39	2.219	-13.	0.	63
24361 TIHRSG	COAL	3.	1.00	0.784 0.14	26.5	2.01	0.85	1.27	0.09	0.	0.	4.22	2.131	-17.	0	92
24361 TIHRSG	COAL	3.	1.63	0.641 0.14	32.1	2.44	1.04	1.21	0.24	0.	-0.26	4.66	2.353	-21.	0	102
24361 STIRL	DISTILL	3.	1.00	-0.322 0.14	5.6	0.42	0.18	0.52	1.13	0.	0.	2.24	1.133	-0.	-20	0
24361 STIRL	RESIDUA	3.	1.00	-0.322 0.14	5.6	0.42	0.18	0.52	0.92	0.	0.	2.03	1.028	0.	-9	0
24361 STIRL	COAL	3.	1.00	0.803 0.14	11.7	0.87	0.37	0.93	0.08	0.	0.	2.24	1.133	-3.	0	999
24361 STIRL	COAL	3.	3.64	0.536 0.14	15.4	1.14	0.49	0.89	0.68	0.	-1.10	2.10	1.058	-4.	4	16
24361 HEGT60	COAL-AF	3.	1.00	0.496 0.14	17.8	1.35	0.57	1.00	0.20	0.	0.	3.13	1.581	-9.	0	119
24361 HEGT60	COAL-AF	3.	7.59	0.176 0.14	45.4	3.44	1.46	1.68	2.53	0.	-2.74	6.38	3.223	-32.	0	89
24361 HEGT00	COAL-AF	3.	1.00	0.575 0.14	16.8	1.28	0.54	0.97	0.17	0.	0.	2.97	1.498	-8.	0	169

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM		SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
							********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********										
24361	HEGT00	COAL-AF	3.	2.69 0.344	0.14	22.6	1.72	0.73	0.94	0.72	0.	-0.70	3.40	1.717	-12.	0	319
24361	FCMCCL	COAL	3.	1.00-2.226	0.14	16.3	1.26	0.54	1.01	1.31	0.	0.	4.12	2.079	-12.	0	63
24361	FCMCCL	COAL	3.	4.72-0.053	0.14	26.3	2.05	0.87	1.26	2.01	0.	-1.54	4.64	2.344	-18.	0	77
24361	FCSTCL	COAL	3.	1.00-2.208	0.14	16.0	1.24	0.53	1.06	1.30	0.	0.	4.13	2.085	-11.	0	63
24361	FCSTCL	COAL	3.	6.42 0.121	0.14	30.3	2.35	1.00	1.51	2.29	0.	-2.25	4.90	2.474	-21.	0	85
24361	IGGTST	COAL	3.	1.00-2.334	0.14	16.5	1.28	0.54	1.09	1.35	0.	0.	4.27	2.156	-12.	0	63
24361	IGGTST	COAL	3.	4.34-0.212	0.14	25.0	1.95	0.83	1.14	2.13	0.	-1.39	4.66	2.353	-18.	0	73
24361	GTSOAR	RESIDUA	3.	1.00-0.103	0.14	6.0	0.44	0.19	0.49	0.77	0.	0.	1.90	0.958	1.	999	0
24361	GTAC08	RESIDUA	3.	1.00-0.185	0.14	5.5	0.41	0.17	0.48	0.83	0.	0.	1.89	0.956	1.	999	0
24361	GTAC12	RESIDUA	3.	1.00-0.049	0.14	5.5	0.41	0.17	0.48	0.73	0.	0.	1.79	0.906	1.	999	0
24361	GTAC16	RESIDUA	3.	1.00 0.009	0.14	5.6	0.42	0.18	0.48	0.69	0.	0.	1.77	0.892	1.	999	0
24361	GTWC16	RESIDUA	3.	1.00-0.016	0.14	5.9	0.44	0.19	0.49	0.71	0.	0.	1.82	0.919	1.	999	0
24361	CC1626	RESIDUA	3.	1.00 0.117	0.14	5.9	0.45	0.19	0.56	0.62	0.	0.	1.81	0.913	1.	999	0
24361	CC1622	RESIDUA	3.	1.00 0.101	0.14	5.7	0.43	0.18	0.55	0.63	0.	0.	1.79	0.905	1.	999	0
24361	CC1222	RESIDUA	3.	1.00 0.103	0.14	5.5	0.42	0.18	0.55	0.63	0.	0.	1.77	0.895	1.	999	0
24361	CC0822	RESIDUA	3.	1.00 0.034	0.14	5.7	0.43	0.18	0.55	0.67	0.	0.	1.84	0.931	1.	999	0
24361	STIG15	RESIDUA	3.	1.00 0.160	0.14	5.9	0.44	0.19	0.51	0.59	0.	0.	1.72	0.868	1.	999	0
24361	STIG10	RESIDUA	3.	1.00 0.109	0.14	5.7	0.42	0.18	0.50	0.62	0.	0.	1.72	0.870	1.	999	0
24361	STIG1S	RESIDUA	3.	1.00 0.045	0.14	5.6	0.42	0.18	0.50	0.67	0.	0.	1.76	0.888	1.	999	0
24361	DEADV3	RESIDUA	3.	1.00 0.137	0.14	7.5	0.56	0.24	0.55	0.60	0.	0.	1.95	0.986	-0.	7	10
24361	DEHTPI1	RESIDUA	3.	1.00-0.030	0.14	7.8	0.58	0.24	0.59	0.72	0.	0.	2.13	1.075	-1.	0	70
24361	DESOA3	DISTILL	3.	1.00 0.114	0.14	6.5	0.48	0.20	0.53	0.76	0.	0.	1.97	0.997	0.	-2	0
24361	DESOA3	RESIDUA	3.	1.00 0.114	0.14	6.5	0.48	0.20	0.53	0.62	0.	0.	1.83	0.926	1.	999	0
24361	GTSOAD	DISTILL	3.	1.00-0.096	0.14	5.4	0.40	0.17	0.48	0.94	0.	0.	1.98	1.002	1.	-5	0
24361	GTRA08	DISTILL	3.	1.00 0.104	0.14	6.1	0.45	0.19	0.49	0.77	0.	0.	1.91	0.963	1.	999	0
24361	GTRA12	DISTILL	3.	1.00 0.106	0.14	6.1	0.45	0.19	0.49	0.77	0.	0.	1.89	0.957	1.	999	0
24361	GTRA16	DISTILL	3.	1.00 0.083	0.14	6.2	0.46	0.20	0.49	0.78	0.	0.	1.94	0.977	0.	999	0
24361	GTR208	DISTILL	3.	1.00-0.000	0.14	5.9	0.44	0.19	0.49	0.86	0.	0.	1.96	0.992	0.	-3	0
24361	GTR212	DISTILL	3.	1.00 0.030	0.14	6.0	0.44	0.19	0.49	0.83	0.	0.	1.95	0.985	0.	-1	0
24361	GTR216	DISTILL	3.	1.00 0.050	0.14	6.0	0.45	0.19	0.49	0.81	0.	0.	1.94	0.980	0.	999	0
24361	GTRW08	DISTILL	3.	1.00 0.088	0.14	6.2	0.46	0.20	0.50	0.78	0.	0.	1.93	0.976	0.	999	0
24361	GTRW12	DISTILL	3.	1.00 0.121	0.14	6.2	0.46	0.20	0.49	0.75	0.	0.	1.90	0.961	0.	999	0
24361	GTRW16	DISTILL	3.	1.00 0.104	0.14	6.4	0.47	0.20	0.50	0.77	0.	0.	1.94	0.978	0.	999	0
24361	GTR308	DISTILL	3.	1.00-0.032	0.14	5.9	0.44	0.19	0.49	0.88	0.	0.	2.00	1.012	0.	-7	0
24361	GTR312	DISTILL	3.	1.00 0.064	0.14	6.0	0.45	0.19	0.49	0.80	0.	0.	1.93	0.974	0.	999	0
24361	GTR316	DISTILL	3.	1.00 0.056	0.14	6.2	0.46	0.19	0.50	0.81	0.	0.	1.96	0.988	0.	0	0
24361	FCPADS	DISTILL	3.	1.00 0.158	0.14	5.9	0.44	0.19	0.62	0.72	0.	0.	1.97	0.994	0.	-3	0
24361	FCMCDS	DISTILL	3.	1.00 0.223	0.14	6.0	0.45	0.19	0.61	0.66	0.	0.	1.91	0.964	1.	999	0
24921	ONOCGN	COAL-AF	5.	0. 0.	0.46	4.4	0.33	0.14	0.44	0.04	1.54	0.	2.49	1.000	0.	0	0
24921	STM141	RESIDUA	5.	0.31 0.187	0.46	3.3	0.25	0.11	0.32	0.25	1.06	0.	1.98	0.797	2.	999	0
24921	STM141	COAL-FG	5.	0.31 0.187	0.46	6.0	0.45	0.19	0.54	0.15	1.06	0.	2.39	0.960	-0.	9	9
24921	STM141	COAL-AF	5.	0.31 0.187	0.46	5.1	0.39	0.17	0.47	0.15	1.06	0.	2.23	0.897	0.	24	4
24921	STM088	RESIDUA	5.	0.20 0.120	0.46	2.8	0.21	0.09	0.31	0.19	1.23	0.	2.02	0.813	2.	999	0
24921	STM088	COAL-FG	5.	0.20 0.120	0.46	5.4	0.41	0.18	0.52	0.11	1.23	0.	2.44	0.983	-0.	8	10

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********																
24921 STM088	COAL-AF	5.	0.20 0.120	0.46	4.8	0.36	0.15	0.46	0.11	1.23	0.	2.32	0.931	0.	26	4
24921 PFBSTM	COAL-PF	5.	0.58 0.337	0.46	7.9	0.60	0.26	0.63	0.25	0.64	0.	2.38	0.956	-1.	7	11
24921 TISTMT	RESIDUA	5.	0.04 0.026	0.46	3.7	0.28	0.12	0.37	0.09	1.47	0.	2.34	0.939	1.	999	0
24921 TISTMT	COAL	5.	0.81 0.474	0.46	20.3	1.54	0.65	0.92	0.32	0.29	0.	3.73	1.499	-12.	0	999
24921 TIHRSG	RESIDUA	5.	0.03 0.010	0.46	3.6	0.26	0.11	0.32	0.09	1.50	0.	2.29	0.919	1.	999	0
24921 TIHRSG	COAL	5.	0.48 0.192	0.46	19.1	1.45	0.62	0.79	0.29	0.80	0.	3.95	1.588	-12.	0	120
24921 STIRL	DISTILL	5.	1.00-0.266	0.46	4.6	0.34	0.14	0.41	2.51	0.	0.	3.40	1.368	-3.	0	56
24921 STIRL	DISTILL	5.	0.06 0.024	0.46	2.8	0.20	0.09	0.32	0.15	1.45	0.	2.20	0.886	2.	999	0
24921 STIRL	RESIDUA	5.	1.00-0.266	0.46	4.6	0.34	0.14	0.41	2.05	0.	0.	2.94	1.182	-1.	0	56
24921 STIRL	RESIDUA	5.	0.06 0.024	0.46	2.8	0.20	0.09	0.32	0.12	1.45	0.	2.18	0.875	2.	999	0
24921 STIRL	COAL	5.	1.00 0.417	0.46	8.2	0.61	0.26	0.70	0.55	0.	0.	2.11	0.848	-1.	12	8
24921 STIRL	COAL	5.	1.08 0.418	0.46	7.7	0.57	0.24	0.58	0.59	0.	-0.07	1.91	0.767	0.	16	6
24921 HEGT60	COAL-AF	5.	1.00 0.123	0.46	18.9	1.43	0.61	0.97	0.83	0.	0.	3.84	1.544	-11.	0	213
24921 HEGT60	COAL-AF	5.	2.25 0.126	0.46	27.6	2.10	0.89	1.09	1.80	0.	-1.15	4.73	1.900	-18.	0	142
24921 HEGT00	COAL-AF	5.	0.80 0.158	0.46	13.8	1.04	0.44	0.62	0.61	0.31	0.	3.03	1.219	-6.	0	999
24921 FCMCCL	COAL	5.	1.00-0.230	0.46	14.9	1.16	0.49	0.92	1.16	0.	0.	3.73	1.501	-9.	0	94
24921 FCMCCL	COAL	5.	1.40-0.020	0.46	16.0	1.24	0.53	0.83	1.32	0.	-0.37	3.56	1.432	-9.	0	371
24921 FCSTCL	COAL	5.	1.00-0.213	0.46	14.9	1.16	0.49	1.00	1.14	0.	0.	3.80	1.526	-9.	0	89
24921 FCSTCL	COAL	5.	1.90 0.141	0.46	18.4	1.43	0.61	1.02	1.51	0.	-0.83	3.73	1.498	-11.	0	999
24921 IGGTST	COAL	5.	1.00-0.334	0.46	15.2	1.18	0.50	0.94	1.25	0.	0.	3.89	1.562	-10.	0	83
24921 IGGTST	COAL	5.	1.28-0.171	0.46	15.7	1.22	0.52	0.81	1.40	0.	-0.26	3.69	1.483	-9.	0	114
24921 GTSOAR	RESIDUA	5.	1.00-0.057	0.46	5.4	0.40	0.17	0.43	1.71	0.	0.	2.70	1.087	-1.	0	60
24921 GTSOAR	RESIDUA	5.	0.08 0.034	0.46	3.0	0.22	0.09	0.31	0.14	1.41	0.	2.18	0.876	2.	999	0
24921 GTAC08	RESIDUA	5.	1.00-0.135	0.46	4.5	0.33	0.14	0.37	1.84	0.	0.	2.69	1.080	-1.	0	55
24921 GTAC08	RESIDUA	5.	0.06 0.031	0.46	2.7	0.20	0.09	0.30	0.11	1.45	0.	2.15	0.863	2.	999	0
24921 GTAC12	RESIDUA	5.	1.00-0.005	0.46	4.7	0.35	0.15	0.40	1.63	0.	0.	2.53	1.016	-0.	0	59
24921 GTAC12	RESIDUA	5.	0.08 0.039	0.46	2.8	0.20	0.09	0.31	0.13	1.42	0.	2.14	0.861	2.	999	0
24921 GTAC16	RESIDUA	5.	1.00 0.051	0.46	5.0	0.37	0.16	0.41	1.54	0.	0.	2.48	0.995	-0.	7	11
24921 GTAC16	RESIDUA	5.	0.09 0.043	0.46	2.8	0.21	0.09	0.31	0.14	1.40	0.	2.15	0.862	2.	999	0
24921 GTWC16	RESIDUA	5.	1.00 0.027	0.46	5.3	0.39	0.17	0.43	1.58	0.	0.	2.56	1.028	-1.	0	125
24921 GTWC16	RESIDUA	5.	0.09 0.041	0.46	2.9	0.22	0.09	0.31	0.14	1.40	0.	2.17	0.871	2.	999	0
24921 CC1626	RESIDUA	5.	1.00 0.154	0.46	5.4	0.41	0.18	0.52	1.37	0.	0.	2.48	0.995	-0.	6	12
24921 CC1626	RESIDUA	5.	0.13 0.057	0.46	3.1	0.23	0.10	0.37	0.18	1.34	0.	2.22	0.893	1.	999	0
24921 CC1622	RESIDUA	5.	1.00 0.139	0.46	5.2	0.39	0.17	0.51	1.39	0.	0.	2.46	0.989	-0.	7	11
24921 CC1622	RESIDUA	5.	0.12 0.054	0.46	2.9	0.22	0.09	0.37	0.16	1.36	0.	2.21	0.886	2.	999	0
24921 CC1222	RESIDUA	5.	1.00 0.141	0.46	5.0	0.38	0.16	0.50	1.39	0.	0.	2.43	0.978	-0.	11	8
24921 CC1222	RESIDUA	5.	0.12 0.054	0.46	2.9	0.22	0.09	0.37	0.16	1.36	0.	2.20	0.883	2.	999	0
24921 CC0822	RESIDUA	5.	1.00 0.075	0.46	5.1	0.38	0.16	0.50	1.50	0.	0.	2.54	1.023	-1.	0	999
24921 CC0822	RESIDUA	5.	0.09 0.045	0.46	2.9	0.22	0.09	0.36	0.14	1.40	0.	2.20	0.886	2.	999	0
24921 STIG15	RESIDUA	5.	1.00 0.166	0.46	5.6	0.42	0.18	0.51	1.35	0.	0.	2.45	0.986	-0.	7	11
24921 STIG15	RESIDUA	5.	3.44 0.171	0.46	10.4	0.77	0.33	0.81	4.48	0.	-2.25	4.13	1.661	-8.	0	61
24921 STIG10	RESIDUA	5.	1.00 0.147	0.46	5.3	0.39	0.17	0.48	1.38	0.	0.	2.42	0.973	-0.	10	8
24921 STIG10	RESIDUA	5.	0.32 0.075	0.46	3.7	0.27	0.12	0.37	0.44	1.05	0.	2.25	0.904	1.	999	0
24921 STIG1S	RESIDUA	5.	1.00 0.086	0.46	5.1	0.38	0.16	0.47	1.48	0.	0.	2.50	1.004	-0.	4	16

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
24921	STIG1S	RESIDUA	5.	0.19	0.050 0.46	3.2	0.24	0.10	0.34	0.28	1.25	0.	2.21	0.889	1.	999	0
24921	DEADV3	RESIDUA	5.	1.00	0.174 0.46	7.2	0.54	0.23	0.53	1.34	0.	0.	2.63	1.057	-2.	0	999
24921	DEADV3	RESIDUA	5.	0.23	0.073 0.46	4.5	0.33	0.14	0.39	0.31	1.18	0.	2.36	0.948	0.	999	1
24921	DEHTPM	RESIDUA	5.	1.00	0.014 0.46	7.3	0.54	0.23	0.54	1.60	0.	0.	2.90	1.167	-3.	0	70
24921	DEHTPM	RESIDUA	5.	0.09	0.040 0.46	2.9	0.22	0.09	0.34	0.14	1.41	0.	2.19	0.881	2.	999	0
24921	DESOA3	DISTILL	5.	1.00	0.151 0.46	6.5	0.48	0.21	0.51	1.69	0.	0.	2.89	1.160	-2.	0	64
24921	DESOA3	DISTILL	5.	0.27	0.072 0.46	3.6	0.27	0.11	0.38	0.46	1.12	0.	2.34	0.942	1.	999	0
24921	DESOA3	RESIDUA	5.	1.00	0.151 0.46	6.5	0.48	0.21	0.51	1.38	0.	0.	2.58	1.035	-1.	0	26
24921	DESOA3	RESIDUA	5.	0.27	0.072 0.46	3.6	0.27	0.11	0.38	0.38	1.12	0.	2.26	0.908	1.	999	0
24921	GTSOAD	DISTILL	5.	1.00	-0.050 0.46	4.5	0.33	0.14	0.40	2.08	0.	0.	2.95	1.187	-1.	0	55
24921	GTSOAD	DISTILL	5.	0.07	0.035 0.46	2.7	0.20	0.09	0.30	0.16	1.42	0.	2.17	0.874	2.	999	0
24921	GTRA08	DISTILL	5.	1.00	0.142 0.46	5.7	0.42	0.18	0.45	1.70	0.	0.	2.75	1.107	-1.	0	62
24921	GTRA08	DISTILL	5.	0.13	0.055 0.46	3.2	0.24	0.10	0.33	0.22	1.34	0.	2.23	0.896	1.	999	0
24921	GTRA12	DISTILL	5.	1.00	0.144 0.46	5.6	0.42	0.18	0.44	1.70	0.	0.	2.74	1.101	-1.	0	62
24921	GTRA12	DISTILL	5.	0.13	0.055 0.46	3.1	0.23	0.10	0.32	0.22	1.34	0.	2.21	0.890	1.	999	0
24921	GTRA16	DISTILL	5.	1.00	0.122 0.46	5.9	0.43	0.18	0.45	1.74	0.	0.	2.81	1.129	-2.	0	61
24921	GTRA16	DISTILL	5.	0.12	0.052 0.46	3.1	0.23	0.10	0.32	0.20	1.36	0.	2.22	0.891	1.	999	0
24921	GTR208	DISTILL	5.	1.00	0.042 0.46	5.3	0.39	0.17	0.43	1.90	0.	0.	2.89	1.161	-2.	0	57
24921	GTR208	DISTILL	5.	0.10	0.042 0.46	3.0	0.22	0.09	0.31	0.18	1.39	0.	2.20	0.885	2.	999	0
24921	GTR212	DISTILL	5.	1.00	0.071 0.46	5.5	0.40	0.17	0.43	1.84	0.	0.	2.85	1.147	-2.	0	58
24921	GTR212	DISTILL	5.	0.10	0.045 0.46	3.0	0.22	0.10	0.32	0.19	1.38	0.	2.21	0.887	2.	999	0
24921	GTR216	DISTILL	5.	1.00	0.091 0.46	5.6	0.41	0.18	0.44	1.81	0.	0.	2.83	1.138	-2.	0	59
24921	GTR216	DISTILL	5.	0.11	0.047 0.46	3.0	0.23	0.10	0.32	0.19	1.38	0.	2.21	0.887	2.	999	0
24921	GTRW08	DISTILL	5.	1.00	0.127 0.46	5.9	0.43	0.18	0.46	1.73	0.	0.	2.81	1.128	-2.	0	61
24921	GTRW08	DISTILL	5.	0.16	0.055 0.46	3.4	0.25	0.11	0.34	0.27	1.30	0.	2.26	0.908	1.	999	0
24921	GTRW12	DISTILL	5.	1.00	0.158 0.46	5.9	0.43	0.18	0.45	1.67	0.	0.	2.74	1.103	-1.	0	64
24921	GTRW12	DISTILL	5.	0.16	0.060 0.46	3.4	0.25	0.11	0.33	0.26	1.30	0.	2.25	0.904	1.	999	0
24921	GTRW16	DISTILL	5.	1.00	0.142 0.46	6.0	0.45	0.19	0.46	1.70	0.	0.	2.80	1.124	-2.	0	63
24921	GTRW16	DISTILL	5.	0.14	0.057 0.46	3.4	0.25	0.11	0.33	0.24	1.32	0.	2.25	0.905	1.	999	0
24921	GTR308	DISTILL	5.	1.00	0.011 0.46	5.4	0.40	0.17	0.44	1.96	0.	0.	2.98	1.198	-2.	0	58
24921	GTR308	DISTILL	5.	0.12	0.039 0.46	3.1	0.23	0.10	0.32	0.23	1.36	0.	2.24	0.899	1.	999	0
24921	GTR312	DISTILL	5.	1.00	0.104 0.46	5.5	0.41	0.17	0.44	1.78	0.	0.	2.81	1.128	-1.	0	59
24921	GTR312	DISTILL	5.	0.12	0.050 0.46	3.2	0.23	0.10	0.32	0.22	1.35	0.	2.23	0.895	1.	999	0
24921	GTR316	DISTILL	5.	1.00	0.096 0.46	5.7	0.43	0.18	0.45	1.80	0.	0.	2.85	1.145	-2.	0	60
24921	GTR316	DISTILL	5.	0.12	0.049 0.46	3.2	0.24	0.10	0.32	0.22	1.35	0.	2.23	0.898	1.	999	0
24921	FCPADS	DISTILL	5.	1.00	0.193 0.46	5.5	0.40	0.17	0.82	1.60	0.	0.	3.00	1.204	-2.	0	61
24921	FCPADS	DISTILL	5.	0.26	0.082 0.46	3.4	0.25	0.11	0.42	0.42	1.14	0.	2.33	0.937	1.	999	0
24921	FCMCDS	DISTILL	5.	1.00	0.256 0.46	5.6	0.42	0.18	0.78	1.48	0.	0.	2.85	1.147	-2.	0	65
24921	FCMCDS	DISTILL	5.	0.21	0.087 0.46	3.3	0.24	0.10	0.38	0.31	1.22	0.	2.25	0.904	1.	999	0
26212	ONOCGN	COAL-FG	50.	0.	0. 0.22	47.9	3.63	1.54	2.51	10.02	16.17	0.	33.88	1.000	0.	0	0
26212	STM141	RESIDUA	50.	0.94	0.286 0.22	32.3	2.45	1.04	1.41	23.04	0.91	0.	28.86	0.85?	23.	999	0
26212	STM141	COAL-FG	50.	0.94	0.286 0.22	61.3	4.65	1.98	3.20	13.38	0.91	0.	24.12	0.712	24.	42	3
26212	STM141	COAL-AF	50.	0.94	0.286 0.22	42.6	3.23	1.38	2.93	13.38	0.91	0.	21.83	0.644	40.	999	0
26212	STM088	RESIDUA	50.	0.69	0.208 0.22	25.6	1.95	0.83	1.24	21.46	5.09	0.	30.56	0.902	21.	999	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26212 STM088	COAL-FG	50.	0.69	0.208 0.22	57.3	4.35	1.85	2.99	12.46	5.09	0.	26.74	0.789	18.	43	3
26212 STM088	COAL-AF	50.	0.69	0.208 0.22	41.0	3.11	1.32	2.83	12.46	5.09	0.	24.81	0.732	32.	999	0
26212 PFBSTM	COAL-PF	50.	1.00	0.297 0.22	63.2	4.79	2.04	4.84	13.70	0.	0.	25.37	0.749	19.	34	3
26212 PFBSTM	COAL-PF	50.	1.53	0.361 0.22	60.9	4.62	1.97	5.13	15.66	0.	-5.16	22.22	0.656	30.	49	2
26212 TISTMT	RESIDUA	50.	1.00	0.298 0.22	105.8	8.03	3.41	3.57	23.55	0.	0.	38.56	1.138	-42.	0	999
26212 TISTMT	RESIDUA	50.	1.26	0.333 0.22	118.8	9.01	3.83	3.90	25.19	0.	-2.52	39.42	1.164	-51.	0	999
26212 TISTMT	COAL	50.	1.00	0.298 0.22	140.2	10.64	4.52	5.58	13.68	0.	0.	34.43	1.016	-46.	4	14
26212 TISTMT	COAL	50.	2.05	0.404 0.22	202.1	15.34	6.52	6.85	17.50	0.	-10.15	36.07	1.065	-81.	4	16
26212 TIHRSG	RESIDUA	50.	0.61	0.135 0.22	105.5	7.81	3.32	3.40	22.71	6.26	0.	43.50	1.284	-56.	0	65
26212 TIHRSG	COAL	50.	1.00	0.219 0.22	179.8	13.64	5.80	6.06	15.17	0.06	0.	40.74	1.202	-85.	0	999
26212 STIRL	DISTILL	50.	1.00	0.215 0.22	53.6	3.97	1.69	2.22	32.28	0.	0.	40.16	1.185	-22.	0	56
26212 STIRL	DISTILL	50.	1.49	0.259 0.22	63.2	4.68	1.99	2.48	37.69	0.	-4.71	42.13	1.243	-32.	0	57
26212 STIRL	RESIDUA	50.	1.00	0.215 0.22	53.7	3.98	1.69	2.22	26.33	0.	0.	34.22	1.010	-3.	0	180
26212 STIRL	RESIDUA	50.	1.49	0.259 0.22	63.3	4.69	1.99	2.48	30.74	0.	-4.71	35.20	1.039	-11.	0	114
26212 STIRL	COAL	50.	1.00	0.215 0.22	91.5	6.77	2.88	4.41	15.29	0.	0.	29.36	0.867	-6.	12	8
26212 STIRL	COAL	50.	2.41	0.308 0.22	150.0	11.11	4.72	5.79	22.75	0.	-13.72	30.66	0.905	-37.	7	11
26212 HEGT85	COAL-AF	50.	1.00	0.069 0.22	120.7	9.16	3.89	5.20	18.14	0.	0.	36.39	1.074	-43.	2	22
26212 HEGT85	COAL-AF	50.	12.41	0.131 0.22	652.2	49.49	21.04	23.87	110.80	0.	-110.71	94.49	2.789	-480.	0	126
26212 HEGT60	COAL-AF	50.	1.00	0.091 0.22	115.1	8.74	3.71	5.08	17.71	0.	0.	35.25	1.040	-37.	3	17
26212 HEGT60	COAL-AF	50.	4.07	0.146 0.22	213.3	16.19	6.88	8.72	41.36	0.	-29.82	43.33	1.279	-109.	0	999
26212 HEGT00	COAL-AF	50.	1.00	0.110 0.22	100.7	7.64	3.25	4.76	17.34	0.	0.	32.98	0.974	-23.	6	12
26212 HEGT00	COAL-AF	50.	1.65	0.138 0.22	117.0	8.88	3.78	5.11	22.07	0.	-6.28	33.56	0.991	-32.	5	13
26212 FCMCCL	COAL	50.	1.00	-0.062 0.22	96.8	7.52	3.20	5.36	20.69	0.	0.	36.77	1.085	-34.	0	999
26212 FCMCCL	COAL	50.	2.94	0.226 0.22	142.4	11.07	4.71	8.45	29.24	0.	-18.78	34.69	1.024	-50.	4	15
26212 FCSTCL	COAL	50.	1.00	-0.052 0.22	101.8	7.91	3.37	5.37	20.50	0.	0.	37.15	1.096	-37.	0	999
26212 FCSTCL	COAL	50.	4.46	0.328 0.22	172.5	13.41	5.70	10.26	35.09	0.	-33.56	30.90	0.912	-53.	7	11
26212 IGGTST	COAL	50.	1.00	-0.108 0.22	89.1	6.92	2.94	4.02	21.58	0.	0.	35.47	1.047	-26.	1	23
26212 IGGTST	COAL	50.	3.10	0.169 0.22	137.8	10.71	4.56	4.50	32.71	0.	-20.37	32.11	0.948	-39.	6	12
26212 GTSOAR	RESIDUA	50.	1.00	0.217 0.22	39.9	2.96	1.26	1.79	26.27	0.	0.	32.27	0.952	9.	999	0
26212 GTSOAR	RESIDUA	50.	1.92	0.288 0.22	48.3	3.57	1.52	2.04	34.59	0.	-8.96	32.76	0.967	4.	999	0
26212 GTAC08	RESIDUA	50.	1.00	0.258 0.22	37.1	2.75	1.17	1.71	24.88	0.	0.	30.50	0.900	16.	999	0
26212 GTAC08	RESIDUA	50.	1.48	0.310 0.22	40.1	2.97	1.26	1.80	28.51	0.	-4.62	29.92	0.883	17.	999	0
26212 GTAC12	RESIDUA	50.	1.00	0.254 0.22	38.5	2.85	1.21	1.75	25.02	0.	0.	30.83	0.910	15.	999	0
26212 GTAC12	RESIDUA	50.	1.85	0.333 0.22	45.9	3.40	1.45	1.96	31.60	0.	-8.23	30.17	0.891	13.	999	0
26212 GTAC16	RESIDUA	50.	1.00	0.249 0.22	39.9	2.96	1.26	1.78	25.19	0.	0.	31.18	0 920	13.	999	0
26212 GTAC16	RESIDUA	50.	2.10	0.341 0.22	50.9	3.77	1.60	2.10	33.92	0.	-10.68	30.71	0.906	9.	87	2
26212 GTWC16	RESIDUA	50.	1.00	0.227 0.22	39.1	2.89	1.23	1.77	25.93	0.	0.	31.82	0.939	11.	999	0
26212 GTWC16	RESIDUA	50.	2.19	0.315 0.22	48.6	3.60	1.53	2.05	36.25	0.	-11.55	31.89	0.941	6.	999	0
26212 CC1626	RESIDUA	50.	1.00	0.224 0.22	42.9	3.26	1.38	1.98	26.02	0.	0.	32.64	0.963	6.	999	0
26212 CC1626	RESIDUA	50.	3.46	0.354 0.22	61.3	4.65	1.98	2.58	47.53	0.	-23.81	32.92	0.972	-3.	10	9
26212 CC1622	RESIDUA	50.	1.00	0.235 0.22	43.4	3.29	1.40	1.98	25.65	0.	0.	32.31	0.954	7.	999	0
26212 CC1622	RESIDUA	50.	3.11	0.362 0.22	62.5	4.74	2.02	2.55	43.34	0.	-20.45	32.21	0.951	-2.	12	7
26212 CC1222	RESIDUA	50.	1.00	0.238 0.22	42.3	3.21	1.37	1.96	25.57	0.	0.	32.12	0.948	8.	999	0
26212 CC1222	RESIDUA	50.	3.09	0.365 0.22	59.5	4.51	1.92	2.51	42.91	0.	-20.30	31.63	0.933	2.	17	6

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26212 CCO822	RESIDUA	50.	1.00	0.255 0.22	38.4	2.91	1.24	1.56	25.01	0.	0.	31.02	0.916	14.	999	0
26212 CCO822	RESIDUA	50.	2.46	0.367 0.22	51.0	3.87	1.65	2.26	36.32	0.	-14.17	29.93	0.884	11.	66	2
26212 STIG15	RESIDUA	50.	1.00	0.084 0.22	43.7	3.24	1.38	2.32	30.73	0.	0.	37.67	1.112	-9.	-42	0
26212 STIG15	RESIDUA	50.	82.46	0.171 0.22	1012.1	74.97	31.87	62.10	1128.33	0.	-790.16	507.10	14.968	-1939.	0	58
26212 STIG10	RESIDUA	50.	1.00	0.120 0.22	42.2	3.13	1.33	2.14	29.51	0.	0.	36.11	1.066	-4.	-24	0
26212 STIG10	RESIDUA	50.	7.63	0.218 0.22	115.5	8.56	3.64	6.13	110.70	0.	-64.27	64.76	1.912	-128.	0	58
26212 STIG1S	RESIDUA	50.	1.00	0.137 0.22	41.5	3.07	1.31	2.15	28.95	0.	0.	35.47	1.047	-1.	-18	0
26212 STIG1S	RESIDUA	50.	4.47	0.228 0.22	75.4	5.58	2.37	4.21	69.58	0.	-33.70	48.05	1.418	-57.	0	58
26212 DEADV3	RESIDUA	50.	1.00	0.168 0.22	60.4	4.47	1.90	2.38	27.92	0.	0.	36.67	1.082	-14.	0	60
26212 DEADV3	RESIDUA	50.	5.09	0.286 0.22	175.2	12.98	5.52	5.48	71.56	0.	-39.70	55.84	1.648	-128.	0	65
26212 DEHTPM	RESIDUA	50.	1.00	0.250 0.22	59.3	4.39	1.87	2.41	25.16	0.	0.	33.83	0.999	-5.	5	13
26212 DEHTPM	RESIDUA	50.	2.15	0.345 0.22	92.8	6.88	2.92	3.34	34.23	0.	-11.13	36.25	1.070	-28.	0	999
26212 DESOA3	DISTILL	50.	1.00	0.142 0.22	68.6	5.08	2.16	2.59	35.29	0.	0.	45.12	1.332	-44.	0	57
26212 DESOA3	DISTILL	50.	5.94	0.248 0.22	248.5	18.41	7.83	7.37	105.16	0.	-47.92	90.84	2.681	-272.	0	60
26212 DESOA3	RESIDUA	50.	1.00	0.142 0.22	68.6	5.08	2.16	2.59	28.79	0.	0.	38.62	1.140	-24.	0	61
26212 DESOA3	RESIDUA	50.	5.94	0.248 0.22	248.5	18.41	7.83	7.37	85.79	0.	-47.92	71.46	2.109	-211.	0	64
26212 GTSOAD	DISTILL	50.	1.00	0.242 0.22	36.4	2.70	1.15	1.70	31.18	0.	0.	36.72	1.084	-3.	-19	0
26212 GTSOAD	DISTILL	50.	1.78	0.312 0.22	41.6	3.08	1.31	1.85	39.04	0.	-7.60	37.68	1.112	-8.	-32	0
26212 GTRA08	DISTILL	50.	1.00	0.223 0.22	44.7	3.31	1.41	1.90	31.97	0.	0.	38.59	1.139	-13.	-58	0
26212 GTRA08	DISTILL	50.	2.99	0.338 0.22	69.7	5.16	2.20	2.61	53.47	0.	-19.28	44.17	1.304	-42.	0	58
26212 GTRA12	DISTILL	50.	1.00	0.228 0.22	45.2	3.34	1.42	1.91	31.73	0.	0.	38.41	1.134	-12.	-62	0
26212 GTRA12	DISTILL	50.	2.91	0.345 0.22	68.2	5.05	2.15	2.57	51.94	0.	-18.52	43.18	1.275	-38.	0	58
26212 GTRA16	DISTILL	50.	1.00	0.230 0.22	46.2	3.43	1.46	1.94	31.66	0.	0.	38.48	1.136	-13.	-83	0
26212 GTRA1S	DISTILL	50.	2.71	0.341 0.22	68.5	5.07	2.16	2.57	49.62	0.	-16.59	42.83	1.264	-37.	0	58
26212 GTR208	DISTILL	50.	1.00	0.230 0.22	39.9	2.95	1.26	1.79	31.68	0.	0.	37.67	1.112	-8.	-28	0
26212 GTR208	DISTILL	50.	2.24	0.321 0.22	51.6	3.82	1.63	2.13	44.72	0.	-12.02	40.27	1.189	-21.	0	56
26212 GTR212	DISTILL	50.	1.00	0.229 0.22	40.7	3.01	1.28	1.81	31.71	0.	0.	37.81	1.116	-8.	-30	0
26212 GTR212	DISTILL	50.	2.40	0.327 0.22	54.8	4.06	1.72	2.21	46.51	0.	-13.59	40.91	1.207	-25.	0	56
26212 GTR216	DISTILL	50.	1.00	0.233 0.22	41.8	3.10	1.32	1.83	31.53	0.	0.	37.77	1.115	-9.	-34	0
26212 GTR216	DISTILL	50.	2.46	0.336 0.22	58.1	4.30	1.83	2.30	46.70	0.	-14.19	40.94	1.208	-26.	0	57
26212 GTRW08	DISTILL	50.	1.00	0.187 0.22	44.2	3.27	1.39	1.90	33.42	0.	0.	39.98	1.180	-17.	-66	0
26212 GTRW08	DISTILL	50.	3.56	0.297 0.22	71.3	5.28	2.24	2.69	64.83	0.	-24.84	50.21	1.482	-62.	0	57
26212 GTRW12	DISTILL	50.	1.00	0.201 0.22	44.2	3.27	1.39	1.89	32.85	0.	0.	39.41	1.163	-15.	-61	0
26212 GTRW12	DISTILL	50.	3.61	0.320 0.22	71.7	5.31	2.26	2.70	63.42	0.	-25.34	48.35	1.427	-56.	0	57
26212 GTRW16	DISTILL	50.	1.00	0.204 0.22	44.9	3.33	1.41	1.91	32.72	0.	0.	39.38	1.162	-15.	-69	0
26212 GTRW16	DISTILL	50.	3.34	0.319 0.22	63.7	4.72	2.01	2.49	59.82	0.	-22.71	46.32	1.367	-46.	0	57
26212 GTR308	DISTILL	50.	1.00	0.174 0.22	43.0	3.19	1.36	1.88	33.99	0.	0.	40.41	1.193	-18.	-58	0
26212 GTR308	DISTILL	50.	2.72	0.257 0.22	54.9	4.07	1.73	2.25	56.05	0.	-16.67	47.42	1.400	-45.	0	56
26212 GTR312	DISTILL	50.	1.00	0.208 0.22	42.9	3.18	1.35	1.86	32.55	0.	0.	38.95	1.150	-13.	-47	0
26212 GTR312	DISTILL	50.	2.90	0.314 0.22	56.0	4.15	1.76	2.27	54.25	0.	-18.46	43.97	1.298	-35.	0	56
26212 GTR316	DISTILL	50.	1.00	0.207 0.22	43.8	3.24	1.38	1.89	32.60	0.	0.	39.11	1.154	-14.	-54	0
26212 GTR316	DISTILL	50.	2.86	0.311 0.22	57.3	4.24	1.80	2.31	53.88	0.	-18.02	44.21	1.305	-36.	0	56
26212 FCPADS	DISTILL	50.	1.00	0.158 0.22	57.1	4.23	1.80	6.71	34.61	0.	0.	47.34	1.397	-47.	0	57
26212 FCPADS	DISTILL	50.	6.29	0.279 0.22	189.6	14.04	5.97	34.74	105.77	0.	-51.31	109.21	3.224	-306.	0	59

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26212	FCMCDS	DISTILL	50.	1.00	0.212 0.22	59.1	4.38	1.86	6.39	32.41	0.	0.	45.05	1.330	-40.	0	58
26212	FCMCDS	DISTILL	50.	4.98	0.360 0.22	164.2	12.16	5.17	26.14	77.17	0.	-38.56	82.08	2.423	-208.	0	60
26214	ONOCON	COAL-FG	29.	0.	0. 0.16	40.7	3.09	1.31	2.15	8.14	9.38	0.	24.08	1.000	0.	0	0
26214	STM141	RESIDUA	29.	1.00	0.251 0.16	24.4	1.85	0.79	1.40	17.58	0.	0.	21.62	0.898	16.	999	0
26214	STM141	RESIDUA	29.	1.35	0.296 0.16	24.2	1.84	0.78	1.17	18.81	0.	-1.94	20.65	0.858	19.	999	0
26214	STM141	COAL-FG	29.	1.00	0.251 0.16	48.8	3.70	1.57	3.00	10.21	0.	0.	18.48	0.767	14.	40	3
26214	STM141	COAL-FG	29.	1.35	0.296 0.16	52.2	3.96	1.69	2.75	10.92	0.	-1.94	17.38	0.722	15.	35	3
26214	STM141	COAL-AF	29.	1.00	0.251 0.16	43.6	3.31	1.41	2.94	10.21	0.	0.	17.86	0.742	18.	104	1
26214	STM141	COAL-AF	29.	1.35	0.296 0.16	37.0	2.81	1.20	2.50	10.92	0.	-1.94	15.49	0.643	29.	999	0
26214	STM088	RESIDUA	29.	0.99	0.249 0.16	21.9	1.66	0.71	1.10	17.55	0.07	0.	21.10	0.876	18.	999	0
26214	STM088	COAL-FG	29.	0.99	0.249 0.16	48.8	3.71	1.58	2.58	10.19	0.07	0.	18.13	0.753	15.	42	3
26214	STM088	COAL-AF	29.	0.99	0.249 0.16	35.6	2.70	1.15	2.42	10.19	0.07	0.	16.54	0.687	26.	999	0
26214	PFBSTM	COAL-PF	29.	1.00	0.246 0.16	51.1	3.88	1.65	3.70	10.27	0.	0.	19.49	0.810	9.	28	4
26214	PFBSTM	COAL-PF	29.	2.14	0.362 0.16	52.2	3.96	1.68	3.26	12.71	0.	-6.44	16.18	0.672	19.	39	3
26214	TISTMT	RESIDUA	29.	1.00	0.247 0.16	73.7	5.59	2.38	2.67	17.67	0.	0.	28.31	1.176	-29.	0	75
26214	TISTMT	RESIDUA	29.	1.82	0.338 0.16	101.2	7.68	3.26	3.39	20.67	0.	-4.62	30.39	1.262	-49.	0	101
26214	TISTMT	COAL	29.	1.00	0.247 0.16	99.7	7.57	3.22	4.27	10.26	0.	0.	25.32	1.052	-32.	3	17
26214	TISTMT	COAL	29.	2.85	0.403 0.16	169.3	12.85	5.46	5.79	14.18	0.	-10.40	27.88	1.158	-74.	2	20
26214	TIHRSG	RESIDUA	29.	1.00	0.084 0.16	98.0	7.26	3.09	3.14	21.49	0.	0.	34.98	1.453	-60.	0	63
26214	TIHRSG	RESIDUA	29.	0.86	0.157 0.16	88.9	6.58	2.80	2.92	18.46	1.32	0.	32.08	1.333	-47.	0	65
26214	TIHRSG	COAL	29.	1.00	0.183 0.16	131.9	10.01	4.25	4.97	11.14	0.	0.	30.37	1.261	-63.	0	999
26214	TIHRSG	COAL	29.	1.34	0.215 0.16	149.5	11.35	4.82	5.07	12.17	0.	-1.93	31.48	1.308	-75.	0	999
26214	STIRL	DISTILL	29.	1.00	0.178 0.16	38.4	2.84	1.21	1.74	23.64	0.	0.	29.43	1.223	-15.	-82	0
26214	STIRL	DISTILL	29.	2.08	0.259 0.16	50.5	3.74	1.59	2.09	30.62	0.	-6.08	31.97	1.328	-29.	0	57
26214	STIRL	RESIDUA	29.	1.00	0.178 0.16	38.4	2.85	1.21	1.74	19.29	0.	0.	25.08	1.042	-2.	-22	0
26214	STIRL	RESIDUA	29.	2.08	0.259 0.16	50.6	3.75	1.59	2.09	24.98	0.	-6.08	26.33	1.094	-11.	0	60
26214	STIRL	COAL	29.	1.00	0.178 0.16	64.1	4.74	2.02	3.38	11.20	0.	0.	21.34	0.886	-2.	13	7
26214	STIRL	COAL	29.	3.26	0.304 0.16	117.4	8.70	3.70	4.67	18.09	0.	-12.69	22.46	0.933	-30.	6	11
26214	HEGT85	COAL-AF	29.	1.00	0.057 0.16	82.1	6.23	2.65	3.79	12.85	0.	0.	25.52	1.060	-24.	2	22
26214	HEGT85	COAL-AF	29.	16.74	0.130 0.16	487.4	36.98	15.72	18.23	86.96	0.	-88.54	69.35	2.881	-357.	0	121
26214	HEGT60	COAL-AF	29.	1.00	0.075 0.16	79.3	6.02	2.56	3.73	12.60	0.	0.	24.92	1.035	-21.	3	18
26214	HEGT60	COAL-AF	29.	5.49	0.147 0.16	179.2	13.60	5.78	7.23	32.65	0.	-25.28	33.98	1.411	-98.	0	999
26214	HEGT00	COAL-AF	29.	1.00	0.091 0.16	75.6	5.73	2.44	3.67	12.38	0.	0.	24.23	1.006	-17.	4	14
26214	HEGT00	COAL-AF	29.	2.22	0.136 0.16	98.3	7.46	3.17	4.25	17.57	0.	-6.87	25.58	1.062	-32.	2	19
26214	FCMCCL	COAL	29.	1.00	-0.122 0.16	73.4	5.71	2.43	4.02	15.29	0.	0.	27.45	1.140	-27.	0	184
26214	FCMCCL	COAL	29.	3.96	0.234 0.16	119.0	9.25	3.93	6.89	22.87	0.	-16.65	26.29	1.092	-46.	2	19
26214	FCSTCL	COAL	29.	1.00	-0.114 0.16	71.2	5.54	2.35	3.92	15.18	0.	0.	26.99	1.121	-25.	0	***
26214	FCSTCL	COAL	29.	6.13	0.337 0.16	145.3	11.30	4.80	8.45	27.71	0.	-28.87	23.39	0.972	-50.	5	13
26214	IGGTST	COAL	29.	1.00	-0.159 0.16	68.4	5.31	2.26	3.32	15.79	0.	0.	26.69	1.108	-22.	0	743
26214	IGGTST	COAL	29.	4.28	0.183 0.16	115.4	8.97	3.81	3.87	25.83	0.	-18.46	24.02	0.998	-37.	5	13
26214	GTSOAR	RESIDUA	29.	1.00	0.180 0.16	31.4	2.33	0.99	1.49	19.25	0.	0.	24.06	0.999	5.	-5	0
26214	GTSOAR	RESIDUA	29.	2.70	0.288 0.16	40.0	2.96	1.26	1.76	28.11	0.	-9.54	24.55	1.020	-1.	-20	0
26214	GTAC08	RESIDUA	29.	1.00	0.214 0.16	29.5	2.19	0.93	1.44	18.44	0.	0.	23.00	0.955	9.	999	0
26214	GTAC08	RESIDUA	29.	2.07	0.310 0.16	30.8	2.28	0.97	1.50	23.16	0.	-6.01	21.90	0.910	12.	999	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10=*6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26214 GTAC12	RESIDUA	29.	1.00	0.211 0.16	30.2	2.24	0.95	1.46	18.52	0.	0.	23.17	0.962	8.	999	0
26214 GTAC12	RESIDUA	29.	2.59	0.333 0.16	35.6	2.64	1.12	1.64	25.67	0.	-8.94	22.12	0.919	9.	999	0
26214 GTAC16	RESIDUA	29.	1.00	0.207 0.16	31.1	2.30	0.98	1.48	18.62	0.	0.	23.37	0.971	7.	999	0
26214 GTAC16	RESIDUA	29.	2.94	0.341 0.16	39.8	2.95	1.25	1.75	27.56	0.	-10.94	22.58	0.938	6.	999	0
26214 GTWC16	RESIDUA	29.	1.00	0.188 0.16	30.9	2.29	0.97	1.48	19.05	0.	0.	23.79	0.988	5.	-2	0
26214 GTWC16	RESIDUA	29.	3.07	0.315 0.16	38.2	2.83	1.20	1.73	29.45	0.	-11.64	23.58	0.979	3.	999	0
26214 CC1626	RESIDUA	29.	1.00	0.187 0.16	31.1	2.36	1.00	1.58	19.09	0.	0.	24.04	0.999	5.	-5	0
26214 CC1626	RESIDUA	29.	4.93	0.356 0.16	51.7	3.92	1.67	2.26	39.00	0.	-22.09	24.76	1.029	-7.	0	999
26214 CC1622	RESIDUA	29.	1.00	0.196 0.16	31.1	2.36	1.00	1.58	18.88	0.	0.	23.82	0.989	5.	-2	0
26214 CC1622	RESIDUA	29.	4.43	0.364 0.16	52.3	3.97	1.69	2.23	35.55	0.	-19.32	24.13	1.002	-6.	4	14
26214 CC1222	RESIDUA	29.	1.00	0.198 0.16	30.5	2.31	0.98	1.57	18.83	0.	0.	23.70	0.984	6.	-1	0
26214 CC1222	RESIDUA	29.	4.41	0.367 0.16	49.7	3.77	1.60	2.19	35.27	0.	-19.21	23.63	0.982	-3.	9	10
26214 CC0822	RESIDUA	29.	1.00	0.212 0.16	30.3	2.30	0.98	1.56	18.50	0.	0.	23.34	0.970	7.	999	0
26214 CC0822	RESIDUA	29.	3.52	0.370 0.16	40.3	3.06	1.30	1.92	29.80	0.	-14.18	21.91	0.910	7.	999	0
26214 STIG15	RESIDUA	29.	1.00	0.070 0.16	34.5	2.55	1.09	1.82	21.84	0.	0.	27.30	1.134	-7.	-29	0
26214 STIG15	RESIDUA	29.	115.52	0.171 0.16	826.8	61.24	26.04	50.80	916.77	0.	-644.26	410.57	17.054	-1583.	0	58
26214 STIG10	RESIDUA	29.	1.00	0.100 0.16	30.3	2.25	0.96	1.63	21.13	0.	0.	25.97	1.079	-1.	-15	0
26214 STIG10	RESIDUA	29.	10.68	0.218 0.16	97.2	7.20	3.06	5.18	89.95	0.	-54.47	50.92	2.115	-110.	0	58
26214 STIG1S	RESIDUA	29.	1.00	0.114 0.16	29.9	2.22	0.94	1.64	20.80	0.	0.	25.60	1.063	1.	-13	0
26214 STIG1S	RESIDUA	29.	6.27	0.228 0.16	59.4	4.40	1.87	3.48	56.54	0.	-29.63	36.65	1.522	-48.	0	57
26214 DEADV3	RESIDUA	29.	1.00	0.139 0.16	40.5	3.00	1.27	1.77	20.21	0.	0.	26.25	1.090	-6.	-37	0
26214 DEADV3	RESIDUA	29.	7.13	0.286 0.16	141.9	10.51	4.47	4.56	58.14	0.	-34.51	43.18	1.793	-107.	0	64
26214 DEHTPM	RESIDUA	29.	1.00	0.207 0.16	41.8	3.10	1.32	1.87	18.61	0.	0.	24.89	1.034	-3.	0	55
26214 DEHTPM	RESIDUA	29.	3.01	0.345 0.16	74.7	5.53	2.35	2.81	27.82	0.	-11.30	27.21	1.130	-25.	0	125
26214 DESOA3	DISTILL	29.	1.00	0.118 0.16	45.2	3.35	1.42	1.90	25.39	0.	0.	32.06	1.332	-27.	0	56
26214 DESOA3	DISTILL	29.	8.32	0.248 0.16	201.6	14.93	6.35	6.10	85.44	0.	-41.19	71.63	2.975	-224.	0	60
26214 DESOA3	RESIDUA	29.	1.00	0.118 0.16	45.2	3.35	1.42	1.90	20.71	0.	0.	27.38	1.137	-12.	0	56
26214 DESOA3	RESIDUA	29.	8.32	0.248 0.16	201.6	14.93	6.35	6.10	69.70	0.	-41.19	55.89	2.322	-174.	0	63
26214 GTSOAD	DISTILL	29.	1.00	0.200 0.16	29.0	2.15	0.91	1.43	23.00	0.	0.	27.49	1.142	-5.	-21	0
26214 GTSOAD	DISTILL	29.	2.50	0.312 0.16	32.0	2.37	1.01	1.55	31.72	0.	-8.43	28.22	1.172	-8.	-29	0
26214 GTRA08	DISTILL	29.	1.00	0.184 0.16	32.3	2.39	1.02	1.51	23.46	0.	0.	28.38	1.179	-9.	-30	0
26214 GTRA08	DISTILL	29.	4.18	0.338 0.16	51.8	3.84	1.63	2.10	43.45	0.	-17.92	33.10	1.375	-33.	0	57
26214 GTRA12	DISTILL	29.	1.00	0.189 0.16	32.5	2.41	1.02	1.51	23.32	0.	0.	28.27	1.174	-9.	-30	0
26214 GTRA12	DISTILL	29.	4.08	0.345 0.16	52.3	3.87	1.65	2.10	42.20	0.	-17.30	32.51	1.351	-31.	0	57
26214 GTRA16	DISTILL	29.	1.00	0.191 0.16	33.3	2.47	1.05	1.53	23.28	0.	0.	28.33	1.177	-9.	-32	0
26214 GTRA16	DISTILL	29.	3.80	0.341 0.16	52.4	3.88	1.65	2.10	40.32	0.	-15.73	32.21	1.338	-30.	0	57
26214 GTR208	DISTILL	29.	1.00	0.190 0.16	31.3	2.32	0.98	1.48	23.29	0.	0.	28.08	1.166	-8.	-26	0
26214 GTR208	DISTILL	29.	3.14	0.321 0.16	42.7	3.17	1.35	1.84	36.33	0.	-12.02	30.66	1.274	-21.	0	56
26214 GTR212	DISTILL	29.	1.00	0.190 0.16	31.8	2.36	1.00	1.50	23.31	0.	0.	28.17	1.170	-8.	-28	0
26214 GTR212	DISTILL	29.	3.36	0.327 0.16	45.4	3.36	1.43	1.91	37.79	0.	-13.30	31.19	1.296	-24.	0	56
26214 GTR216	DISTILL	29.	1.00	0.193 0.16	32.5	2.41	1.02	1.51	23.20	0.	0.	28.14	1.169	-8.	-29	0
26214 GTR216	DISTILL	29.	3.45	0.336 0.16	48.2	3.57	1.52	1.98	37.94	0.	-13.78	31.22	1.297	-25.	0	56
26214 GTRW08	DISTILL	29.	1.00	0.155 0.16	32.2	2.38	1.01	1.51	24.30	0.	0.	29.21	1.213	-12.	-34	0
26214 GTRW08	DISTILL	29.	4.99	0.297 0.16	53.7	3.98	1.69	2.18	52.67	0.	-22.44	38.09	1.582	-49.	0	56

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********																	
26214 GTRW12	DISTILL	29.	1.00	0.167	0.16	32.2	2.38	1.01	1.50	23.97	0.	0.	28.87	1.199	-10.	-32	0
26214 GTRW12	DISTILL	29.	5.06	0.320	0.16	54.0	4.00	1.70	2.18	51.53	0.	-22.85	36.57	1.519	-45.	0	56
26214 GTRW16	DISTILL	29.	1.00	0.169	0.16	32.7	2.42	1.03	1.52	23.90	0.	0.	28.87	1.199	-11.	-33	0
26214 GTRW16	DISTILL	29.	4.68	0.319	0.16	53.5	3.96	1.68	2.16	48.60	0.	-20.71	35.69	1.483	-42.	0	56
26214 GTR308	DISTILL	29.	1.00	0.144	0.16	31.4	2.32	0.99	1.38	24.63	0.	0.	29.44	1.223	-12.	-33	0
26214 GTR308	DISTILL	29.	3.81	0.257	0.16	43.6	3.23	1.37	1.90	45.54	0.	-15.80	36.24	1.505	-39.	0	56
26214 GTR312	DISTILL	29.	1.00	0.173	0.16	31.3	2.32	0.99	1.49	20.80	0.	0.	28.59	1.188	-9.	-29	0
26214 GTR312	DISTILL	29.	4.07	0.314	0.16	46.7	3.46	1.47	1.97	44.08	0.	-17.25	33.73	1.401	-33.	0	56
26214 GTR316	DISTILL	29.	1.00	0.172	0.16	32.0	2.37	1.01	1.50	23.83	0.	0.	28.70	1.192	-10.	-31	0
26214 GTR316	DISTILL	29.	4.00	0.311	0.16	47.9	3.55	1.51	2.00	43.77	0.	-16.90	33.93	1.409	-34.	0	56
26214 FCPADS	DISTILL	29.	1.00	0.131	0.16	38.6	2.86	1.21	4.23	24.99	0.	0.	33.29	1.383	-28.	144	0
26214 FCPADS	DISTILL	29.	8.81	0.279	0.16	153.7	11.39	4.84	28.29	85.94	0.	-43.94	86.51	3.593	-252.	0	59
26214 FCMCDS	DISTILL	29.	1.00	0.176	0.16	39.8	2.95	1.25	4.04	23.72	0.	0.	31.96	1.328	-24.	196	0
26214 FCMCDS	DISTILL	29.	6.97	0.360	0.16	133.2	9.87	4.19	21.30	62.70	0.	-33.58	64.46	2.678	-172.	0	60
26216 ONOCGN	COAL-FG	20.	0.	0.	0.22	20.8	1.58	0.67	1.30	6.41	6.47	0.	16.43	1.000	0.	0	0
26216 STM141	RESIDUA	20.	0.91	0.210	0.22	13.1	0.99	0.42	0.79	13.26	0.61	0.	16.07	0.978	5.	0	0
26216 STM141	COAL-FG	20.	0.91	0.210	0.22	27.1	2.06	0.87	1.66	7.70	0.61	0.	12.89	0.785	8.	34	3
26216 STM141	COAL-AF	20.	0.91	0.210	0.22	19.5	1.48	0.63	1.49	7.70	0.61	0.	11.91	0.725	15.	999	0
26216 STM068	RESIDUA	20.	0.65	0.151	0.22	13.1	0.99	0.42	0.78	12.64	2.24	0.	17.07	1.039	2.	-10	0
26216 STM088	COAL-FG	20.	0.65	0.151	0.22	25.1	1.90	0.81	1.56	7.34	2.24	0.	13.85	0.843	6.	36	3
26216 STM068	COAL-AF	20.	0.65	0.151	0.22	18.5	1.40	0.60	1.44	7.34	2.24	0.	13.02	0.792	12.	999	0
26216 PFBSTM	COAL-PF	20.	1.00	0.227	0.22	34.3	2.60	1.11	2.59	7.88	0.	0.	14.18	0.863	0.	15	6
26216 PFBSTM	COAL-PF	20.	1.48	0.285	0.22	32.6	2.48	1.05	2.51	8.60	0.	-1.88	12.76	0.777	6.	22	5
26216 TISTMT	RESIDUA	20.	1.00	0.228	0.22	51.7	3.92	1.67	1.97	13.56	0.	0.	21.12	1.286	-30.	0	69
26216 TISTMT	RESIDUA	20.	1.99	0.331	0.22	79.2	6.01	2.56	2.49	16.05	0.	-3.83	23.27	1.417	-49.	0	83
26216 TISTMT	COAL	20.	1.00	0.228	0.22	72.2	5.48	2.33	3.11	7.87	0.	0.	18.79	1.144	-32.	0	27
26216 TISTMT	COAL	20.	1.99	0.331	0.22	100.3	7.61	3.24	3.56	9.32	0.	-3.83	19.90	1.211	-49.	0	26
26216 TIHRSG	RESIDUA	20.	0.98	0.165	0.22	69.9	5.18	2.20	2.11	14.53	0.13	0.	24.14	1.470	-47.	0	67
26216 TIHRSG	COAL	20.	0.98	0.165	0.22	89.6	6.80	2.89	3.12	8.44	0.13	0.	21.37	1.301	-48.	0	999
26216 STIRL	DISTILL	20.	1.00	0.164	0.22	21.6	1.60	0.68	1.18	17.98	0.	0.	21.43	1.305	-16.	0	56
26216 STIRL	DISTILL	20.	2.38	0.259	0.22	34.4	2.54	1.08	1.34	24.10	0.	-5.34	23.73	1.445	-29.	0	57
26216 STIRL	RESIDUA	20.	1.00	0.164	0.22	21.6	1.60	0.68	1.18	14.67	0.	0.	18.12	1.103	-5.	0	55
26216 STIRL	RESIDUA	20.	2.38	0.259	0.22	34.4	2.55	1.08	1.34	19.66	0.	-5.34	19.30	1.175	-15.	0	61
26216 STIRL	COAL	20.	1.00	0.164	0.22	41.0	3.04	1.29	2.32	8.52	0.	0.	15.17	0.923	-5.	9	9
26216 STIRL	COAL	20.	2.38	0.259	0.22	60.5	4.48	1.91	2.64	11.42	0.	-5.34	15.11	0.920	-14.	7	11
26216 HEGT85	COAL-AF	20.	1.00	0.003	0.22	59.3	4.50	1.91	2.73	9.66	0.	0.	18.79	1.144	-26.	0	999
26216 HEGT85	COAL-AF	20.	12.21	0.125	0.22	245.2	18.61	7.91	9.43	46.07	0.	-43.51	38.51	2.344	-177.	0	139
26216 HEGT60	COAL-AF	20.	1.00	0.069	0.22	56.9	4.32	1.84	2.67	9.49	0.	0.	18.31	1.115	-23.	0	999
26216 HEGT60	COAL-AF	20.	4.01	0.131	0.22	110.3	8.37	3.56	4.33	18.74	0.	-11.68	23.32	1.420	-65.	0	999
26216 HEGT00	COAL-AF	20.	1.00	0.084	0.22	53.0	4.02	1.71	2.56	9.34	0.	0.	17.62	1.073	-19.	1	23
26216 HEGT00	COAL-AF	20.	1.62	0.111	0.22	60.5	4.59	1.95	2.57	11.15	0.	-2.41	17.85	1.087	-23.	1	22
26216 FCMCCL	COAL	20.	1.00	0.198	0.22	50.4	3.92	1.67	2.81	8.17	0.	0.	16.57	1.009	-15.	4	14
26216 FCMCCL	COAL	20.	2.89	0.336	0.22	72.2	5.61	2.39	3.96	11.51	0.	-7.33	16.13	0.982	-25.	5	13
26216 FCSTCL	COAL	20.	1.00	0.206	0.22	49.1	3.82	1.62	2.78	8.10	0.	0.	16.32	0.993	-14.	5	13

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL ********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26216 FCSTCL	COAL	20.	4.35	0.399	0.22	87.0	6.76	2.88	4.82	13.76	0.	-13.01	15.21	0.926	-29.	6	12
26216 IGGTST	COAL	20.	1.00	0.163	0.22	47.9	3.73	1.58	2.40	8.53	0.	0.	16.25	0.989	-13.	5	13
26216 IGGTST	COAL	20.	3.02	0.281	0.22	67.5	5.25	2.23	2.48	12.82	0.	-7.84	14.95	0.910	-19.	7	11
26216 GTSOAR	RESIDUA	20.	1.00	0.166	0.22	18.0	1.33	0.57	1.03	14.64	0.	0.	17.57	1.070	-2.	-24	0
26216 GTSOAR	RESIDUA	20.	3.08	0.288	0.22	26.1	1.93	0.82	1.07	22.12	0.	-8.06	17.89	1.089	-7.	0	58
26216 GTAC08	RESIDUA	20.	1.00	0.198	0.22	16.6	1.23	0.52	0.99	14.09	0.	0.	16.82	1.024	1.	-10	0
26216 GTAC08	RESIDUA	20.	2.36	0.310	0.22	20.3	1.50	0.64	0.90	18.23	0.	-5.28	15.99	0.973	2.	999	0
26216 GTAC12	RESIDUA	20.	1.00	0.194	0.22	17.0	1.26	0.53	1.00	14.14	0.	0.	16.93	1.030	1.	-12	0
26216 GTAC12	RESIDUA	20.	2.96	0.333	0.22	24.1	1.79	0.76	1.01	20.21	0.	-7.59	16.18	0.985	-0.	11	8
26216 GTAC16	RESIDUA	20.	1.00	0.191	0.22	17.6	1.30	0.55	1.01	14.21	0.	0.	17.07	1.039	-0.	-15	0
26216 GTAC16	RESIDUA	20.	3.36	0.341	0.22	27.6	2.05	0.87	1.11	21.69	0.	-9.16	16.56	1.008	-3.	3	17
26216 GTWC16	RESIDUA	20.	1.00	0.174	0.22	17.7	1.31	0.56	1.02	14.51	0.	0.	17.39	1.058	-1.	-20	0
26216 GTWC16	RESIDUA	20.	3.50	0.315	0.22	26.7	1.98	0.84	1.09	23.18	0.	-9.71	17.39	1.058	-5.	0	62
26216 CC1626	RESIDUA	20.	1.00	0.171	0.22	17.8	1.35	0.57	1.12	14.55	0.	0.	17.59	1.071	-2.	-26	0
26216 CC1626	RESIDUA	20.	5.48	0.353	0.22	35.7	2.71	1.15	1.50	30.28	0.	-17.40	18.24	1.111	-13.	0	76
26216 CC1622	RESIDUA	20.	1.00	0.180	0.22	17.7	1.34	0.57	1.11	14.40	0.	0.	17.42	1.060	-2.	-22	0
26216 CC1622	RESIDUA	20.	4.93	0.361	0.22	35.6	2.70	1.15	1.46	27.61	0.	-15.25	17.66	1.075	-11.	0	***
26216 CC1222	RESIDUA	20.	1.00	0.182	0.22	17.2	1.30	0.55	1.10	14.37	0.	0.	17.33	1.055	-1.	-19	0
26216 CC1222	RESIDUA	20.	4.91	0.364	0.22	33.7	2.56	1.09	1.43	27.38	0.	-15.16	17.30	1.053	-9.	0	999
26216 CC0822	RESIDUA	20.	1.00	0.195	0.22	17.2	1.30	0.55	1.10	14.14	0.	0.	17.10	1.041	-0.	-16	0
26216 CC0822	RESIDUA	20.	3.90	0.365	0.22	27.9	2.12	0.90	1.26	23.14	0.	-11.25	16.17	0.984	-3.	8	10
26216 STIG15	RESIDUA	20.	1.00	0.064	0.22	22.1	1.64	0.70	1.31	16.43	0.	0.	20.07	1.222	-12.	0	56
26216 STIG15	RESIDUA	20.	131.85	0.171	0.22	651.1	48.23	20.50	39.96	721.66	0.	-507.70	322.65	19.642	-1258.	0	58
26216 STIG10	RESIDUA	20.	1.00	0.092	0.22	18.4	1.37	0.58	1.16	15.94	0.	0.	19.05	1.160	-7.	-50	0
26216 STIG10	RESIDUA	20.	12.19	0.218	0.22	72.6	5.38	2.29	3.83	70.80	0.	-43.43	38.87	2.367	-95.	0	58
26216 STIG1S	RESIDUA	20.	1.00	0.105	0.22	18.1	1.34	0.57	1.16	15.72	0.	0.	18.80	1.144	-6.	-43	0
26216 STIG1S	RESIDUA	20.	7.15	0.223	0.22	44.3	3.28	1.40	2.51	44.50	0.	-23.88	27.82	1.694	-47.	0	58
26216 DEADV3	RESIDUA	20.	1.00	0.128	0.22	24.3	1.80	0.77	1.24	15.30	0.	0.	19.11	1.164	-10.	0	56
26216 DEADV3	RESIDUA	20.	8.14	0.286	0.22	106.9	7.91	3.37	3.32	45.77	0.	-27.71	32.66	1.988	-91.	0	64
26216 DEHTPM	RESIDUA	20.	1.00	0.191	0.22	23.9	1.77	0.75	1.28	14.20	0.	0.	18.00	1.096	-6.	0	57
26216 DEHTPM	RESIDUA	20.	3.43	0.345	0.22	53.4	3.96	1.68	1.92	21.90	0.	-9.44	20.01	1.218	-26.	0	85
26216 DESOA3	DISTILL	20.	1.00	0.108	0.22	27.6	2.05	0.87	1.33	19.19	0.	0.	23.43	1.426	-25.	0	56
26216 DESOA3	DISTILL	20.	9.50	0.248	0.22	154.0	11.40	4.85	4.54	67.26	0.	-32.97	55.08	3.353	-183.	0	60
26216 DESOA3	RESIDUA	20.	1.00	0.108	0.22	27.6	2.05	0.87	1.33	15.65	0.	0.	19.90	1.211	-14.	0	57
26216 DESOA3	RESIDUA	20.	9.50	0.248	0.22	154.0	11.40	4.85	4.54	54.87	0.	-32.97	42.69	2.599	-144.	0	63
26216 GTSOAD	DISTILL	20.	1.00	0.185	0.22	16.1	1.19	0.51	0.98	17.54	0.	0.	20.22	1.231	-9.	-42	0
26216 GTSOAD	DISTILL	20.	2.85	0.312	0.22	21.3	1.58	0.67	0.94	24.97	0.	-7.19	20.97	1.276	-14.	999	0
26216 GTRA08	DISTILL	20.	1.00	0.170	0.22	18.6	1.38	0.59	1.04	17.86	0.	0.	20.86	1.270	-13.	-82	0
26216 GTRA08	DISTILL	20.	4.78	0.338	0.22	38.1	2.82	1.20	1.41	34.20	0.	-14.65	24.97	1.520	-35.	0	57
26216 GTRA12	DISTILL	20.	1.00	0.175	0.22	18.7	1.39	0.59	1.04	17.76	0.	0.	20.78	1.265	-12.	-84	0
26216 GTRA12	DISTILL	20.	4.65	0.345	0.22	36.2	2.68	1.14	1.36	33.22	0.	-14.17	24.23	1.475	-31.	0	57
26216 GTRA16	DISTILL	20.	1.00	0.176	0.22	19.3	1.43	0.61	1.06	17.73	0.	0.	20.83	1.268	-13.	107	0
26216 GTRA16	DISTILL	20.	4.33	0.341	0.22	36.4	2.69	1.15	1.35	31.74	0.	-12.93	24.00	1.461	-31.	0	57
26216 GTR208	DISTILL	20.	1.00	0.176	0.22	17.8	1.32	0.56	1.02	17.74	0.	0.	20.64	1.257	-12.	-64	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26218 GTR208	DISTILL	20.	3.58	0.321	0.22	28.3	2.10	0.89	1.13	28.60	0.	-10.01	22.71	1.383	-23.	0	56
26216 GTR212	DISTILL	20.	1.00	0.175	0.22	18.2	1.35	0.57	1.03	17.75	0.	0.	20.71	1.261	-12.	-72	0
26216 GTR212	DISTILL	20.	3.84	0.327	0.22	30.6	2.27	0.96	1.20	29.74	0.	-11.02	23.15	1.409	-25.	0	57
26216 GTR216	DISTILL	20.	1.00	0.178	0.22	18.7	1.38	0.59	1.04	17.68	0.	0.	20.69	1.260	-12.	-82	0
26216 GTR216	DISTILL	20.	3.94	0.336	0.22	32.8	2.43	1.03	1.25	29.87	0.	-11.40	23.18	1.411	-26.	0	57
26216 GTRW08	DISTILL	20.	1.00	0.143	0.22	18.6	1.38	0.59	1.05	18.44	0.	0.	21.45	1.306	-14.	-92	0
26216 GTRW08	DISTILL	20.	5.69	0.297	0.22	37.9	2.81	1.19	1.43	41.46	0.	-18.21	28.69	1.746	-46.	0	57
26216 GTRW12	DISTILL	20.	1.00	0.154	0.22	18.6	1.38	0.59	1.04	18.21	0.	0.	21.21	1.291	-14.	-87	0
26216 GTRW12	DISTILL	20.	5.78	0.320	0.22	38.1	2.82	1.20	1.44	40.57	0.	-18.53	27.49	1.674	-42.	0	57
26216 GTRW16	DISTILL	20.	1.00	0.156	0.22	19.0	1.41	0.60	1.05	18.16	0.	0.	21.22	1.292	-14.	102	0
26216 GTRW16	DISTILL	20.	5.34	0.319	0.22	37.7	2.79	1.19	1.41	38.26	0.	-16.85	26.80	1.631	-40.	0	57
26216 GTR308	DISTILL	20.	1.00	0.133	0.22	17.9	1.33	0.57	1.03	18.66	0.	0.	21.59	1.314	-15.	-78	0
26216 GTR308	DISTILL	20.	4.35	0.257	0.22	31.2	2.31	0.98	1.24	35.85	0.	-12.99	27.39	1.668	-39.	0	56
26216 GTR312	DISTILL	20.	1.00	0.159	0.22	18.0	1.33	0.57	1.03	18.09	0.	0.	21.01	1.279	-13.	-70	0
26216 GTR312	DISTILL	20.	4.64	0.314	0.22	31.9	2.36	1.01	1.25	34.70	0.	-14.13	25.19	1.534	-32.	0	57
26216 GTR316	DISTILL	20.	1.00	0.158	0.22	18.4	1.37	0.58	1.04	18.11	0.	0.	21.10	1.284	-13.	-82	0
26216 GTR316	DISTILL	20.	4.57	0.311	0.22	32.9	2.44	1.04	1.28	34.46	0.	-13.85	25.36	1.544	-33.	0	57
26216 FCPADS	DISTILL	20.	1.00	0.121	0.22	23.0	1.70	0.72	2.90	18.91	0.	0.	24.24	1.476	-25.	0	56
26216 FCPADS	DISTILL	20.	10.06	0.279	0.22	116.5	8.63	3.67	21.96	67.65	0.	-35.14	66.76	4.064	-205.	0	59
26216 FCMCDS	DISTILL	20.	1.00	0.162	0.22	23.8	1.76	0.75	2.77	18.03	0.	0.	23.31	1.419	-23.	0	57
26216 FCMCDS	DISTILL	20.	7.96	0.360	0.22	99.9	7.40	3.15	16.44	49.36	0.	-26.99	49.36	3.005	-142.	0	60
26217 ONOCGN	COAL-FG	31.	0.	0.	0.58	14.8	1.13	0.48	0.97	3.82	10.12	0.	16.52	1.000	0.	0	0
26217 STM141	RESIDUA	31.	0.31	0.119	0.58	9.2	0.70	0.30	0.62	7.78	6.94	0.	16.35	0.990	3.	-2	0
26217 STM141	COAL-FG	31.	0.31	0.119	0.58	18.6	1.41	0.60	1.22	4.52	6.94	0.	14.70	0.890	4.	30	4
26217 STM141	COAL-AF	31.	0.31	0.119	0.58	13.9	1.06	0.45	1.09	4.52	6.94	0.	14.06	0.851	8.	999	0
26217 STM088	RESIDUA	31.	0.22	0.083	0.58	8.2	0.62	0.26	0.59	7.42	7.89	0.	16.79	1.017	2.	-8	0
26217 STM088	COAL-FG	31.	0.22	0.083	0.58	17.1	1.30	0.55	1.16	4.31	7.89	0.	15.21	0.921	3.	34	3
26217 STM088	COAL-AF	31.	0.22	0.083	0.58	13.1	1.00	0.42	1.05	4.31	7.89	0.	14.68	0.889	7.	999	0
26217 PFBSTM	COAL-PF	31.	0.53	0.197	0.58	22.9	1.74	0.74	1.73	5.05	4.74	0.	13.99	0.847	4.	22	5
26217 TISTMT	RESIDUA	31.	0.72	0.268	0.58	53.1	4.03	1.71	1.76	9.42	2.84	0.	19.76	1.196	-28.	0	***
26217 TISTMT	COAL	31.	0.72	0.268	0.58	67.5	5.12	2.18	2.50	5.47	2.84	0.	18.11	1.096	-30.	2	20
26217 TIHRSG	RESIDUA	31.	0.37	0.103	0.58	47.5	3.52	1.49	1.48	8.66	6.34	0.	21.50	1.301	-31.	0	67
26217 TIHRSG	COAL	31.	0.37	0.103	0.58	61.0	4.63	1.97	2.19	5.03	6.34	0.	20.16	1.220	-34.	0	999
26217 STIRL	DISTILL	31.	0.90	0.244	0.58	20.9	1.55	0.66	0.92	14.37	0.96	0.	18.46	1.118	-9.	0	59
26217 STIRL	RESIDUA	31.	0.90	0.244	0.58	21.0	1.55	0.66	0.92	11.72	0.96	0.	15.82	0.958	-0.	13	7
26217 STIRL	COAL	31.	0.90	0.244	0.58	36.2	2.68	1.14	1.75	6.81	0.96	0.	13.34	0.808	0.	15	7
26217 HEGT85	COAL-AF	31.	1.00	0.086	0.58	68.5	5.20	2.21	2.92	8.90	0.	0.	19.24	1.165	-34.	0	30
26217 HEGT85	COAL-AF	31.	4.65	0.125	0.58	169.9	12.89	5.48	6.38	27.46	0.	-22.18	30.03	1.818	-117.	0	***
26217 HEGT60	COAL-AF	31.	1.00	0.114	0.58	63.5	4.82	2.05	2.75	8.63	0.	0.	18.25	1.105	-29.	1	22
26217 HEGT60	COAL-AF	31.	1.53	0.131	0.58	76.6	5.81	2.47	2.97	11.17	0.	-3.20	19.22	1.164	-38.	0	26
26217 HEGT00	COAL-AF	31.	0.62	0.085	0.58	41.9	3.18	1.35	1.78	6.65	3.87	0.	16.83	1.019	-14.	4	15
26217 FCMCCL	COAL	31.	1.00	0.324	0.58	49.4	3.84	1.63	2.77	6.58	0.	0.	14.83	0.898	-12.	8	10
26217 FCMCCL	COAL	31.	1.10	0.336	0.58	49.7	3.86	1.64	2.65	6.86	0.	-0.61	14.40	0.872	-11.	9	9
26217 FCSTCL	COAL	31.	1.00	0.336	0.58	50.0	3.89	1.65	2.85	6.47	0.	0.	14.86	0.899	-12.	8	10

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
		********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********														
26217 FCSTCL	COAL	31.	1.61	0.394 0.58	59.0	4.59	1.95	3.20	8.08	0.	-3.69	14.13	0.856	-15.	9	10
26217 IGGTST	COAL	31.	1.00	0.264 0.58	46.9	3.64	1.55	2.06	7.17	0.	0.	14.42	0.873	-9.	9	9
26217 IGGTST	COAL	31.	1.11	0.274 0.58	46.9	3.64	1.55	1.85	7.53	0.	-0.65	13.92	0.843	-8.	10	9
26217 GTSOAR	RESIDUA	31.	1.00	0.272 0.58	17.5	1.30	0.55	0.92	12.22	0.	0.	14.99	0.907	4.	40	3
26217 GTSOAR	RESIDUA	31.	1.17	0.288 0.58	17.8	1.32	0.56	0.79	13.19	0.	-1.04	14.82	0.897	4.	39	3
26217 GTAC08	RESIDUA	31.	0.90	0.291 0.58	13.8	1.02	0.43	0.67	10.87	1.02	0.	14.01	0.848	9.	999	0
26217 GTAC12	RESIDUA	31.	1.00	0.318 0.58	16.1	1.20	0.51	0.87	11.44	0.	0.	14.01	0.848	7.	131	1
26217 GTAC12	RESIDUA	31.	1.13	0.333 0.58	16.2	1.20	0.51	0.74	12.05	0.	-0.76	13.73	0.831	8.	136	1
26217 GTAC16	RESIDUA	31.	1.00	0.312 0.58	17.4	1.29	0.55	0.93	11.54	0.	0.	14.30	0.866	6.	56	2
26217 GTAC16	RESIDUA	31.	1.28	0.341 0.58	18.5	1.37	0.58	0.81	12.93	0.	-1.70	13.99	0.847	6.	45	3
26217 GTWC16	RESIDUA	31.	1.00	0.284 0.58	17.2	1.28	0.54	0.93	12.01	0.	0.	14.76	0.894	5.	49	2
26217 GTWC16	RESIDUA	31.	1.33	0.315 0.58	18.4	1.36	0.58	0.81	13.82	0.	-2.03	14.54	0.881	5.	38	3
26217 CC1626	RESIDUA	31.	1.00	0.279 0.58	18.1	1.38	0.59	1.10	12.09	0.	0.	15.15	0.917	3.	27	4
26217 CC1626	RESIDUA	31.	2.03	0.349 0.58	24.1	1.83	0.78	1.12	17.77	0.	-6.26	15.24	0.923	-0.	14	7
26217 CC1622	RESIDUA	31.	1.00	0.293 0.58	18.1	1.38	0.58	1.08	11.86	0.	0.	14.90	0.902	3.	31	4
26217 CC1622	RESIDUA	31.	1.63	0.356 0.58	23.4	1.78	0.75	1.07	16.21	0.	-5.01	14.80	0.896	1.	17	6
26217 CC1222	RESIDUA	31.	1.00	0.296 0.58	17.4	1.32	0.56	1.07	11.81	0.	0.	14.77	0.894	4.	39	3
26217 CC1222	RESIDUA	31.	1.81	0.359 0.58	22.2	1.68	0.72	1.05	16.07	0.	-4.95	14.58	0.883	3.	20	5
26217 CC0822	RESIDUA	31.	1.00	0.317 0.58	16.9	1.29	0.55	1.04	11.45	0.	0.	14.33	0.867	6.	56	2
26217 CC0822	RESIDUA	31.	1.44	0.360 0.58	18.7	1.42	0.60	0.94	13.58	0.	-2.65	13.89	0.841	6.	40	3
26217 STIG15	RESIDUA	31.	1.00	0.105 0.58	18.8	1.39	0.59	1.32	15.01	0.	0.	18.31	1.109	-7.	0	58
26217 STIG15	RESIDUA	31.	50.22	0.171 0.58	396.0	29.33	12.47	24.36	430.17	0.	-298.87	197.46	11.955	-747.	0	58
26217 STIG10	RESIDUA	31.	1.00	0.151 0.58	17.7	1.31	0.56	1.19	14.25	0.	0.	17.30	1.048	-4.	0	60
26217 STIG10	RESIDUA	31.	4.64	0.218 0.58	44.5	3.30	1.40	2.46	42.21	0.	-22.13	27.24	1.649	-47.	0	59
26217 STIG1S	RESIDUA	31.	1.00	0.171 0.58	17.1	1.27	0.54	1.18	13.90	0.	0.	16.88	1.022	-2.	0	68.
26217 STIG1S	RESIDUA	31.	2.72	0.228 0.58	27.0	2.00	0.85	1.64	26.53	0.	-10.47	20.55	1.244	-18.	0	59
26217 DEADV3	RESIDUA	31.	1.00	0.210 0.58	26.7	1.97	0.84	1.28	13.25	0.	0.	17.35	1.050	-8.	0	999
26217 DEADV3	RESIDUA	31.	3.10	0.286 0.58	64.6	4.79	2.04	2.16	27.28	0.	-12.76	23.50	1.423	-45.	0	71
26217 DEHTPM	RESIDUA	31.	1.00	0.313 0.58	27.4	2.03	0.86	1.31	11.53	0.	0.	15.73	0.952	-3.	10	9
26217 DEHTPM	RESIDUA	31.	1.31	0.345 0.58	32.4	2.40	1.02	1.29	13.05	0.	-1.87	15.90	0.962	-6.	8	10
26217 DESOA3	DISTILL	31.	1.00	0.177 0.58	31.8	2.36	1.00	1.42	16.92	0.	0.	21.70	1.314	-24.	0	59
26217 DESOA3	DISTILL	31.	3.62	0.248 0.58	92.8	6.88	2.92	2.90	40.09	0.	-15.90	36.89	2.234	-100.	0	61
26217 DESOA3	RESIDUA	31.	1.00	0.177 0.58	31.8	2.36	1.00	1.42	13.80	0.	0.	18.58	1.125	-14.	0	78
26217 DESOA3	RESIDUA	31.	3.62	0.248 0.58	92.8	6.88	2.92	2.90	32.71	0.	-15.90	29.51	1.786	-77.	0	66
26217 GTSOAD	DISTILL	31.	1.00	0.303 0.58	14.7	1.09	0.46	0.82	14.34	0.	0.	16.71	1.012	-0.	-24	0
26217 GTSOAD	DISTILL	31.	1.09	0.312 0.58	14.4	1.07	0.45	0.70	14.88	0.	-0.52	16.58	1.004	0.	-10	0
26217 GTRA08	DISTILL	31.	1.00	0.279 0.58	19.1	1.41	0.60	1.00	14.84	0.	0.	17.86	1.081	-6.	0	59
26217 GTRA08	DISTILL	31.	1.82	0.338 0.58	24.3	1.80	0.77	0.98	20.39	0.	-4.98	18.96	1.148	-12.	0	60
26217 GTRA12	DISTILL	31.	1.00	0.286 0.58	19.3	1.43	0.61	1.01	14.69	0.	0.	17.73	1.074	-6.	0	59
26217 GTRA12	DISTILL	31.	1.77	0.345 0.58	24.5	1.81	0.77	0.99	19.80	0.	-4.69	18.68	1.131	-11.	0	61
26217 GTRA16	DISTILL	31.	1.00	0.288 0.58	20.1	1.49	0.63	1.02	14.64	0.	0.	17.78	1.077	-6.	0	60
26217 GTRA16	DISTILL	31.	1.65	0.341 0.58	24.6	1.82	0.78	0.98	18.92	0.	-3.95	18.55	1.123	-11.	0	62
26217 GTR208	DISTILL	31.	1.00	0.288 0.58	17.7	1.31	0.56	0.95	14.65	0.	0.	17.46	1.057	-4.	0	58
26217 GTR208	DISTILL	31.	1.36	0.321 0.58	19.2	1.42	0.61	0.83	17.05	0.	-2.21	17.70	1.072	-6.	0	59

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26217 GTR212	DISTILL	31.	1.00	0.287 0.58	18.3	1.36	0.58	0.97	14.67	0.	0.	17.58	1.064	-5.	0	59
26217 GTR212	DISTILL	31.	1.46	0.327 0.58	20.8	1.54	0.65	0.88	17.73	0.	-2.81	17.99	1.089	-7.	0	60
26217 GTR216	DISTILL	31.	1.00	0.292 0.58	19.1	1.41	0.60	0.99	14.56	0.	0.	17.56	1.063	-5.	0	60
26217 GTR216	DISTILL	31.	1.50	0.336 0.58	22.1	1.64	0.70	0.91	17.80	0.	-3.03	18.01	1.091	-8.	0	61
26217 GTRW08	DISTILL	31.	1.00	0.235 0.58	19.0	1.41	0.60	1.02	15.74	0.	0.	18.77	1.136	-9.	0	57
26217 GTRW08	DISTILL	31.	2.17	0.297 0.58	26.2	1.94	0.82	1.06	24.71	0.	-7.10	21.44	1.298	-21.	0	58
26217 GTRW12	DISTILL	31.	1.00	0.252 0.58	19.0	1.41	0.60	1.01	15.39	0.	0.	18.41	1.115	-8.	0	58
26217 GTRW12	DISTILL	31.	2.20	0.320 0.58	26.3	1.95	0.83	1.06	24.18	0.	-7.29	20.73	1.255	-18.	0	58
26217 GTRW16	DISTILL	31.	1.00	0.256 0.58	19.5	1.45	0.61	1.02	15.31	0.	0.	18.39	1.114	-8.	0	58
26217 GTRW16	DISTILL	31.	2.04	0.319 0.58	26.1	1.93	0.82	1.04	22.81	0.	-6.29	20.32	1.230	-17.	0	59
26217 GTR308	DISTILL	31.	1.00	0.217 0.58	18.0	1.33	0.57	0.98	16.10	0.	0.	18.98	1.149	-9.	0	57
26217 GTR308	DISTILL	31.	1.66	0.257 0.58	21.4	1.58	0.67	0.92	21.37	0.	-3.95	20.56	1.245	-16.	0	57
26217 GTR312	DISTILL	31.	1.00	0.261 0.58	18.0	1.33	0.57	0.98	15.20	0.	0.	18.08	1.095	-8.	0	57
26217 GTR312	DISTILL	31.	1.77	0.314 0.58	22.0	1.63	0.69	0.93	20.68	0.	-4.66	19.27	1.167	-12.	0	58
26217 GTR316	DISTILL	31.	1.00	0.259 0.58	18.6	1.38	0.59	0.99	15.23	0.	0.	18.19	1.102	-7.	0	58
26217 GTR316	DISTILL	31.	1.74	0.311 0.58	22.7	1.68	0.72	0.95	20.54	0.	-4.50	19.39	1.174	-12.	0	58
26217 FCPADS	DISTILL	31.	1.00	0.198 0.58	24.9	1.84	0.78	3.95	16.49	0.	0.	23.07	1.396	-25.	0	59
26217 FCPADS	DISTILL	31.	3.83	0.279 0.58	70.3	5.21	2.22	13.18	40.32	0.	-17.19	43.74	2.648	-113.	0	60
26217 FCMCDS	DISTILL	31.	1.00	0.265 0.58	25.8	1.91	0.81	3.74	15.11	0.	0.	21.58	1.306	-21.	0	60
26217 FCMCDS	DISTILL	31.	3.03	0.360 0.58	60.4	4.47	1.90	9.88	29.42	0.	-12.33	33.35	2.019	-75.	0	61
26218 ONOCGN	COAL-FG	15.	0.	0. 0.21	17.9	1.36	0.58	1.14	5.09	4.85	0.	13.02	1.000	0.	0	0
26218 STM141	RESIDUA	15.	0.91	0.204 0.21	11.2	0.85	0.36	0.71	10.45	0.41	0.	12.78	0.982	4.	-2	0
26218 STM141	COAL-FG	15.	0.91	0.204 0.21	22.9	1.74	0.74	1.44	6.07	0.41	0.	10.41	0.799	6.	32	3
26218 STM141	COAL-AF	15.	0.91	0.204 0.21	16.8	1.27	0.54	1.29	6.07	0.41	0.	9.59	0.737	11.	999	0
26218 STM088	RESIDUA	15.	0.65	0.145 0.21	10.0	0.76	0.32	0.67	9.97	1.70	0.	13.41	1.030	3.	-9	0
26218 STM088	COAL-FG	15.	0.65	0.145 0.21	21.1	1.60	0.68	1.36	5.79	1.70	0.	11.13	0.855	4.	35	3
26218 STM088	COAL-AF	15.	0.65	0.145 0.21	15.8	1.20	0.51	1.25	5.79	1.70	0.	10.45	0.802	9.	999	0
26218 PFBSTM	COAL-PF	15.	1.00	0.218 0.21	29.3	2.22	0.94	2.21	6.20	0.	0.	11.58	0.890	-1.	13	7
26218 PFBSTM	COAL-PF	15.	1.52	0.280 0.21	27.8	2.11	0.90	2.12	6.78	0.	-1.52	10.39	0.798	3.	20	5
26218 TISTMT	RESIDUA	15.	1.00	0.219 0.21	42.6	3.23	1.37	1.69	10.66	0.	0.	16.97	1.303	-24.	0	68
26218 TISTMT	RESIDUA	15.	2.05	0.327 0.21	66.2	5.03	2.14	2.13	12.65	0.	-3.06	18.89	1.450	-42.	0	80
26218 TISTMT	COAL	15.	1.00	0.219 0.21	59.9	4.54	1.93	2.67	6.19	0.	0.	15.34	1.178	-27.	0	999
26218 TISTMT	COAL	15.	2.05	0.327 0.21	84.0	6.38	2.71	3.04	7.34	0.	-3.06	16.41	1.260	-42.	0	999
26218 TIHRSG	RESIDUA	15.	1.00	0.162 0.21	57.9	4.29	1.82	1.88	11.44	0.	0.	19.44	1.493	-39.	0	66
26218 TIHRSG	RESIDUA	15.	1.04	0.166 0.21	58.8	4.36	1.85	1.80	11.55	0.	-0.11	19.45	1.494	-39.	0	67
26218 TIHRSG	COAL	15.	1.00	0.162 0.21	75.3	5.72	2.43	2.83	6.64	0.	0.	17.62	1.353	-42.	0	999
26218 TIHRSG	COAL	15.	1.04	0.166 0.21	75.5	5.73	2.44	2.66	6.70	0.	-0.11	17.42	1.338	-41.	0	999
26218 STIRL	DISTILL	15.	1.00	0.158 0.21	17.2	1.27	0.54	1.02	14.09	0.	0.	16.92	1.300	-12.	159	0
26218 STIRL	DISTILL	15.	2.52	0.259 0.21	27.6	2.04	0.87	1.13	19.16	0.	-4.42	18.78	1.442	-22.	0	57
26218 STIRL	RESIDUA	15.	1.00	0.158 0.21	17.2	1.28	0.54	1.02	11.50	0.	0.	14.33	1.101	-4.	-61	0
26218 STIRL	RESIDUA	15.	2.52	0.259 0.21	27.6	2.04	0.87	1.13	15.63	0.	-4.42	15.26	1.172	-11.	0	60
26218 STIRL	COAL	15.	1.00	0.158 0.21	33.8	2.51	1.07	2.00	6.67	0.	0.	12.24	0.940	-5.	8	10
26218 STIRL	COAL	15.	2.52	0.259 0.21	48.9	3.62	1.54	2.21	9.07	0.	-4.42	12.04	0.924	-11.	7	11
26218 HEGT85	COAL-AF	15.	1.00	0.051 0.21	49.2	3.73	1.59	2.32	7.53	0.	0.	15.17	1.165	-22.	0	999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY SYSTEM	CONV SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********																
26218	HEGT85 COAL-AF	15.	12.94	0.125 0.21	208.3	15.81	6.72	7.92	36.62	0.	-34.76	32.31	2.481	-152.	0	121
26218	HEGT60 COAL-AF	15.	1.00	0.067 0.21	47.3	3.59	1.53	2.27	7.40	0.	0.	14.79	1.136	-20.	0	999
26218	HEGT60 COAL-AF	15.	4.25	0.131 0.21	93.8	7.12	3.03	3.66	14.90	0.	-9.45	19.25	1.478	-56.	0	999
26218	HEGT00 COAL-AF	15.	1.00	0.081 0.21	44.2	3.35	1.43	2.18	7.29	0.	0.	14.25	1.094	-16.	0	28
26218	HEGT00 COAL-AF	15.	1.72	0.111 0.21	51.4	3.90	1.66	2.18	8.86	0.	-2.09	14.51	1.115	-21.	0	27
26218	FCMCCL COAL	15.	1.00	0.191 0.21	42.1	3.27	1.39	2.37	6.42	0.	0.	13.45	1.033	-13.	3	16
26218	FCMCCL COAL	15.	3.06	0.336 0.21	61.1	4.75	2.02	3.31	9.15	0.	-6.00	13.23	1.016	-22.	4	14
26218	FCSTCL COAL	15.	1.00	0.198 0.21	41.0	3.19	1.36	2.37	6.36	0.	0.	13.28	1.020	-12.	4	15
26218	FCSTCL COAL	15.	4.54	0.396 0.21	73.1	5.69	2.42	4.01	10.85	0.	-10.30	12.66	0.972	-26.	5	13
26218	IGGTST COAL	15.	1.00	0.156 0.21	40.4	3.14	1.34	2.11	6.69	0.	0.	13.28	1.020	-12.	4	15
26218	IGGTST COAL	15.	3.14	0.278 0.21	57.3	4.46	1.89	2.17	10.11	0.	-6.22	12.42	0.954	-18.	6	12
26218	GTSOAR RESIDUA	15.	1.00	0.160 0.21	15.1	1.12	0.47	0.91	11.47	0.	0.	13.98	1.073	-1.	-22	0
26218	GTSOAR RESIDUA	15.	3.26	0.288 0.21	22.0	1.63	0.69	0.94	17.58	0.	-6.58	14.27	1.096	-6.	0	58
26218	GTAC08 RESIDUA	15.	1.00	0.190 0.21	13.9	1.03	0.44	0.87	11.06	0.	0.	13.39	1.029	1.	-11	0
26218	GTAC08 RESIDUA	15.	2.50	0.310 0.21	17.1	1.26	0.54	0.79	14.49	0.	-4.37	12.71	0.976	2.	999	0
26218	GTAC12 RESIDUA	15.	1.00	0.187 0.21	14.1	1.05	0.44	0.88	11.10	0.	0.	13.47	1.035	1.	-12	0
26218	GTAC12 RESIDUA	15.	3.13	0.333 0.21	20.2	1.50	0.64	0.88	16.06	0.	-6.21	12.87	0.988	-0.	11	8
26218	GTAC16 RESIDUA	15.	1.00	0.184 0.21	14.6	1.08	0.46	0.89	11.15	0.	0.	13.58	1.043	0.	-14	0
26218	GTAC16 RESIDUA	15.	3.56	0.341 0.21	23.1	1.71	0.73	0.96	17.24	0.	-7.45	13.19	1.013	-3.	1	22
26218	GTWC16 RESIDUA	15.	1.00	0.167 0.21	14.8	1.10	0.47	0.90	11.37	0.	0.	13.83	1.063	-1.	-19	0
26218	GTWC16 RESIDUA	15.	3.71	0.315 0.21	22.6	1.67	0.71	0.96	18.43	0.	-7.89	13.88	1.066	-5.	0	61
26218	CC1626 RESIDUA	15.	1.00	0.165 0.21	14.9	1.13	0.48	1.00	11.41	0.	0.	14.02	1.077	-2.	-24	0
26218	CC1626 RESIDUA	15.	5.73	0.351 0.21	29.9	2.27	0.97	1.31	23.87	0.	-13.75	14.67	1.127	-11.	0	72
26218	CC1622 RESIDUA	15.	1.00	0.173 0.21	14.7	1.11	0.47	0.99	11.30	0.	0.	13.87	1.065	-1.	-20	0
26218	CC1622 RESIDUA	15.	5.15	0.358 0.21	29.5	2.24	0.95	1.27	21.77	0.	-12.07	14.16	1.087	-9.	0	112
26218	CC1222 RESIDUA	15.	1.00	0.175 0.21	14.3	1.08	0.46	0.98	11.27	0.	0.	13.80	1.060	-1.	-18	0
26218	CC1222 RESIDUA	15.	5.12	0.361 0.21	27.9	2.12	0.90	1.25	21.59	0.	-11.99	13.86	1.065	-7.	0	717
26218	CC0822 RESIDUA	15.	1.00	0.187 0.21	14.4	1.09	0.46	0.98	11.10	0.	0.	13.64	1.048	-0.	-16	0
26218	CC0822 RESIDUA	15.	4.06	0.363 0.21	23.3	1.77	0.75	1.10	18.24	0.	-9.91	12.96	0.995	-2.	6	12
26218	STIG15 RESIDUA	15.	1.00	0.062 0.21	14.9	1.10	0.47	1.04	12.81	0.	0.	15.43	1.185	-6.	-41	0
26218	STIG15 RESIDUA	15.	139.72	0.171 0.21	520.8	38.57	16.40	32.03	573.57	0.	-403.69	256.88	19.729	-1002.	0	58
26218	STIG10 RESIDUA	15.	1.00	0.089 0.21	14.3	1.06	0.45	0.98	12.45	0.	0.	14.95	1.148	-4.	-31	0
26218	STIG10 RESIDUA	15.	12.92	0.218 0.21	55.3	4.10	1.74	3.07	56.27	0.	-34.69	30.49	2.342	-72.	0	58
26218	STIG1S RESIDUA	15.	1.00	0.101 0.21	14.1	1.04	0.44	0.98	12.28	0.	0.	14.75	1.133	-3.	-27	0
26218	STIG1S RESIDUA	15.	7.58	0.228 0.21	37.3	2.76	1.17	2.12	35.37	0.	-19.15	22.28	1.711	-38.	0	58
26218	DEADV3 RESIDUA	15.	1.00	0.124 0.21	21.1	1.56	0.67	1.11	11.97	0.	0.	15.31	1.176	-8.	0	57
26218	DEADV3 RESIDUA	15.	8.63	0.286 0.21	85.5	6.33	2.69	2.74	36.38	0.	-22.20	25.93	1.992	-72.	0	64
26218	DEHTPM RESIDUA	15.	1.00	0.184 0.21	19.0	1.41	0.60	1.10	11.14	0.	0.	14.25	1.094	-4.	0	56
26218	DEHTPM RESIDUA	15.	3.64	0.345 0.21	42.8	3.17	1.35	1.61	17.40	0.	-7.68	15.85	1.218	-20.	0	82
26218	DESOA3 DISTILL	15.	1.00	0.104 0.21	20.9	1.55	0.66	1.11	15.00	0.	0.	18.30	1.406	-18.	0	56
26218	DESOA3 DISTILL	15.	10.07	0.248 0.21	123.0	9.11	3.87	3.71	53.46	0.	-26.38	43.77	3.362	-145.	0	60
26218	DESOA3 RESIDUA	15.	1.00	0.104 0.21	20.9	1.55	0.66	1.11	12.23	0.	0.	15.54	1.194	-9.	0	56
26218	DESOA3 RESIDUA	15.	10.07	0.248 0.21	123.0	9.11	3.87	3.71	43.61	0.	-26.38	33.92	2.605	-114.	0	63
26218	GTSOAD DISTILL	15.	1.00	0.178 0.21	13.5	1.00	0.42	0.87	13.76	0.	0.	16.05	1.233	-7.	-37	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
26218 GTSOAD	DISTILL	15.	3.02	0.312	0.21	17.9	1.33	0.56	0.82	19.84	0.	-5.89	16.67	1.280	-11.	999	0
26218 GTRA08	DISTILL	15.	1.00	0.164	0.21	15.5	1.15	0.49	0.92	14.00	0.	0.	16.56	1.272	-10.	-66	0
26218 GTRA08	DISTILL	15.	5.06	0.338	0.21	32.2	2.38	1.01	1.22	27.18	0.	-11.82	19.98	1.535	-28.	0	58
26218 GTRA12	DISTILL	15.	1.00	0.168	0.21	15.6	1.16	0.49	0.92	13.93	0.	0.	16.49	1.267	-10.	-66	0
26218 GTRA12	DISTILL	15.	4.93	0.345	0.21	30.4	2.25	0.96	1.17	26.40	0.	-11.44	19.35	1.486	-25.	0	57
26218 GTRA16	DISTILL	15.	1.00	0.170	0.21	16.1	1.19	0.51	0.93	13.90	0.	0.	16.53	1.270	-10.	-79	0
26218 GTRA16	DISTILL	15.	4.59	0.341	0.21	30.6	2.26	0.96	1.17	25.22	0.	-10.45	19.17	1.472	-25.	0	57
26218 GTR208	DISTILL	15.	1.00	0.169	0.21	14.9	1.10	0.47	0.90	13.91	0.	0.	16.38	1.258	-9.	-53	0
26218 GTR208	DISTILL	15.	3.79	0.321	0.21	23.8	1.77	0.75	0.99	22.73	0.	-8.13	18.10	1.390	-18.	0	56
26218 GTR212	DISTILL	15.	1.00	0.169	0.21	15.2	1.13	0.48	0.91	13.92	0.	0.	16.44	1.262	-9.	-59	0
26218 GTR212	DISTILL	15.	4.07	0.327	0.21	25.7	1.91	0.81	1.04	23.64	0.	-8.93	18.47	1.418	-20.	0	57
26218 GTR216	DISTILL	15.	1.00	0.172	0.21	15.6	1.15	0.49	0.92	13.86	0.	0.	16.42	1.261	-9.	-64	0
26218 GTR216	DISTILL	15.	4.17	0.336	0.21	27.5	2.04	0.87	1.09	23.74	0.	-9.23	18.49	1.420	-21.	0	57
26218 GTRW08	DISTILL	15.	1.00	0.138	0.21	15.6	1.16	0.49	0.92	14.43	0.	0.	17.00	1.306	-11.	-75	0
26218 GTRW08	DISTILL	15.	6.03	0.297	0.21	32.1	2.38	1.01	1.25	32.95	0.	-14.65	22.95	1.763	-38.	0	57
26218 GTRW12	DISTILL	15.	1.00	0.148	0.21	15.6	1.15	0.49	0.92	14.26	0.	0.	16.83	1.293	-11.	-72	0
26218 GTRW12	DISTILL	15.	6.12	0.320	0.21	32.3	2.40	1.02	1.25	32.24	0.	-14.90	22.01	1.690	-35.	0	57
26218 GTRW16	DISTILL	15.	1.00	0.151	0.21	16.0	1.18	0.50	0.93	14.22	0.	0.	16.84	1.293	-11.	-81	0
26218 GTRW16	DISTILL	15.	5.66	0.319	0.21	32.0	2.37	1.01	1.23	30.41	0.	-13.57	21.45	1.647	-33.	0	57
26218 GTR308	DISTILL	15.	1.00	0.128	0.21	15.0	1.11	0.47	0.91	14.60	0.	0.	17.10	1.313	-11.	-65	0
26218 GTR308	DISTILL	15.	4.61	0.257	0.21	26.4	1.95	0.83	1.08	28.49	0.	-10.50	21.86	1.679	-31.	0	56
26218 GTR312	DISTILL	15.	1.00	0.154	0.21	15.1	1.12	0.47	0.91	14.17	0.	0.	16.67	1.280	-10.	-59	0
26218 GTR312	DISTILL	15.	4.92	0.314	0.21	27.0	2.00	0.85	1.10	27.58	0.	-11.41	20.12	1.545	-26.	0	57
26218 GTR316	DISTILL	15.	1.00	0.153	0.21	15.5	1.15	0.49	0.92	14.19	0.	0.	16.74	1.286	-10.	-68	0
26218 GTR316	DISTILL	15.	4.84	0.311	0.21	27.9	2.07	0.88	1.12	27.39	0.	-11.18	20.27	1.557	-27.	0	57
26218 FCPADS	DISTILL	15.	1.00	0.117	0.21	17.6	1.30	0.55	2.26	14.79	0.	0.	18.90	1.452	-18.	999	0
26218 FCPADS	DISTILL	15.	10.66	0.279	0.21	93.0	6.89	2.93	17.50	53.76	0.	-28.10	52.97	4.069	-162.	0	59
26218 FCMCDS	DISTILL	15.	1.00	0.156	0.21	18.1	1.34	0.57	2.16	14.13	0.	0.	18.20	1.398	-16.	999	0
26218 FCMCDS	DISTILL	15.	8.43	0.360	0.21	80.0	5.93	2.52	13.12	39.23	0.	-21.62	39.17	3.008	-112.	0	60
28001 ONOCON	COAL-FG	33.	0.	0.	0.10	60.1	4.56	1.94	3.18	23.95	10.96	0.	44.58	1.000	0.	0	0
28001 STM141	RESIDUA	33.	1.00	0.132	0.10	38.4	2.91	1.24	1.92	45.40	0.	0.	51.47	1.154	-11.	-23	0
28001 STM141	RESIDUA	33.	1.80	0.203	0.10	39.8	3.02	1.29	1.66	48.72	0.	-5.25	49.44	1.109	-5.	-19	0
28001 STM141	COAL-FG	33.	1.00	0.132	0.10	77.7	5.90	2.51	4.40	26.36	0.	0.	39.17	0.879	8.	22	5
28001 STM141	COAL-FG	33.	1.80	0.203	0.10	76.0	5.77	2.45	4.00	28.29	0.	-5.25	35.26	0.791	22.	35	3
28001 STM141	COAL-AF	33.	1.00	0.132	0.10	62.9	4.77	2.03	4.17	26.36	0.	0.	37.33	0.837	21.	122	1
28001 STM141	COAL-AF	33.	1.80	0.203	0.10	58.1	4.41	1.87	3.88	28.29	0.	-5.25	33.19	0.745	37.	999	0
28001 STM088	RESIDUA	33.	1.00	0.132	0.10	36.8	2.79	1.19	1.84	45.40	0.	0.	51.22	1.149	-10.	-21	0
28001 STM088	RESIDUA	33.	1.26	0.157	0.10	36.2	2.75	1.17	1.56	46.46	0.	-1.68	50.26	1.127	-6.	-19	0
28001 STM088	COAL-FG	33.	1.00	0.132	0.10	76.3	5.82	2.47	4.27	26.36	0.	0.	38.92	0.873	10.	24	4
28001 STM088	COAL-FG	33.	1.26	0.157	0.10	71.1	5.40	2.29	3.72	26.98	0.	-1.68	36.71	0.823	19.	41	3
28001 STM088	COAL-AF	33.	1.00	0.132	0.10	58.9	4.47	1.90	4.12	26.36	0.	0.	36.85	0.827	25.	999	0
28001 STM088	COAL-AF	33.	1.26	0.157	0.10	56.1	4.26	1.81	3.74	26.98	0.	-1.68	35.10	0.787	32.	999	0
28001 PFBSTM	COAL-PF	33.	1.00	0.128	0.10	78.2	5.93	2.52	5.20	26.46	0.	0.	40.11	0.900	5.	19	5
28001 PFBSTM	COAL-PF	33.	3.06	0.274	0.10	75.2	5.70	2.43	6.81	31.64	0.	-13.54	33.04	0.741	28.	43	3

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST 'PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM		SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
						********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********											
28001	TISTMT	RESIDUA	33.	1.00	0.129 0.10	92.1	6.99	2.97	3.26	45.52	0.	0.	58.73	1.317	-60.	0	58
28001	TISTMT	RESIDUA	33.	4.14	0.322 0.10	205.8	15.62	6.64	5.95	58.94	0.	-20.65	66.50	1.492	-138.	0	69
28001	TISTMT	COAL	33.	1.00	0.129 0.10	134.1	10.18	4.33	5.74	26.43	0.	0.	46.67	1.047	-42.	2	19
28001	TISTMT	COAL	33.	4.14	0.322 0.10	258.9	19.65	8.35	8.74	34.22	0.	-20.65	50.32	1.129	-113.	2	20
28001	TIHRSG	RESIDUA	33.	1.00	0.096 0.10	117.4	8.69	3.70	3.79	47.28	0.	0.	63.45	1.423	-85.	0	59
28001	TIHRSG	RESIDUA	33.	2.16	0.166 0.10	184.9	13.69	5.82	5.19	54.28	0.	-7.64	71.35	1.601	-141.	0	62
28001	TIHRSG	COAL	33.	1.00	0.096 0.10	166.7	12.65	5.38	6.52	27.45	0.	0.	52.00	1.166	-74	0	999
28001	TIHRSG	COAL	33.	2.16	0.166 0.10	234.8	17.81	7.57	7.90	31.52	0.	-7.64	57.17	1.282	-123.	0	999
28001	STIRL	DISTILL	33.	1.00	0.094 0.10	55.1	4.08	1.74	2.28	58.10	0.	0.	66.19	1.485	-65.	158	0
28001	STIRL	DISTILL	33.	5.24	0.259 0.10	117.8	8.73	3.71	3.71	90.07	0.	-27.87	78.34	1.757	-132.	0	57
28001	STIRL	RESIDUA	33.	1.00	0.094 0.10	55.1	4.08	1.74	2.28	47.39	0.	0.	55.49	1.245	-31.	-86	0
28001	STIRL	RESIDUA	33.	5.24	0.259 0.10	118.0	8.74	3.71	3.71	73.48	0.	-27.87	61.77	1.386	-80.	0	59
28001	STIRL	COAL	33.	1.00	0.094 0.10	97.7	7.24	3.08	4.82	27.52	0.	0.	42.66	0.957	-11.	9	10
28001	STIRL	COAL	33.	5.24	0.259 0.10	210.4	15.58	6.62	7.92	42.66	0.	-27.87	44.92	1.008	-71.	5	14
28001	HEGT85	COAL-AF	33.	1.00	0.030 0.10	111.6	8.47	3.60	5.13	29.45	0.	0.	46.65	1.046	-31.	1	24
28001	HEGT85	COAL-AF	33.	26.93	0.125 0.10	833.7	63.27	26.90	31.64	172.16	0.	-170.51	123.45	2.769	-619.	0	120
28001	HEGT60	COAL-AF	33.	1.00	0.039 0.10	108.5	8.23	3.50	5.08	29.16	0.	0.	45.98	1.031	-28.	2	20
28001	HEGT60	COAL-AF	33.	8.64	0.131 0.10	272.1	20.64	8.78	11.55	70.04	0.	-51.55	59.45	1.334	-149.	0	999
28001	HEGT00	COAL-AF	33.	1.00	0.048 0.10	104.3	7.92	3.37	5.05	28.91	0.	0.	45.24	1.015	-23.	3	16
28001	HEGT00	COAL-AF	33.	3.57	0.111 0.10	149.4	11.33	4.82	6.75	41.68	0.	-16.93	47.65	1.069	-53.	2	22
28001	FCMCCL	COAL	33.	1.00	0.113 0.10	106.7	8.29	3.53	5.55	26.94	0.	0.	44.30	0.994	-23.	5	13
28001	FCMCCL	COAL	33.	6.37	0.336 0.10	183.4	14.26	6.06	11.53	43.00	0.	-35.31	39.54	0.887	-46.	8	10
28001	FCSTCL	COAL	33.	1.00	0.117 0.10	104.7	8.14	3.46	5.45	26.82	0.	0.	43.86	0.984	-21.	6	12
28001	FCSTCL	COAL	33.	9.28	0.394 0.10	217.9	16.94	7.20	13.72	50.56	0.	-54.42	34.00	0.763	-46.	9	9
28001	IGGTST	COAL	33.	1.00	0.092 0.10	99.6	7.74	3.29	4.65	27.58	0.	0.	43.27	0.971	-16.	7	11
28001	IGGTST	COAL	33.	6.38	0.274 0.10	178.8	13.90	5.91	5.63	47.11	0.	-35.38	37.17	0.834	-36.	9	9
28001	GTSOAR	RESIDUA	33.	1.00	0.094 0.10	48.8	3.62	1.54	2.04	47.35	0.	0.	54.54	1.223	-25.	-45	0
28001	GTSOAR	RESIDUA	33.	6.78	0.288 0.10	88.6	6.56	2.79	2.88	82.67	0.	-38.03	56.87	1.276	-51.	0	58
28001	GTAC08	RESIDUA	33.	1.00	0.112 0.10	43.5	3.22	1.37	1.91	46.41	0.	0.	52.90	1.187	-18.	-30	0
28001	GTAC08	RESIDUA	33.	5.20	0.310 0.10	64.0	4.74	2.02	2.22	68.13	0.	-27.65	49.45	1.109	-16.	0	55
28001	GTAC12	RESIDUA	33.	1.00	0.111 0.10	47.6	3.53	1.50	2.00	46.50	0.	0.	53.53	1.201	-21.	-38	0
28001	GTAC12	RESIDUA	33.	6.52	0.333 0.10	77.1	5.71	2.43	2.57	75.52	0.	-36.28	49.94	1.120	-24.	0	58
28001	GTAC16	RESIDUA	33.	1.00	0.108 0.10	48.5	3.60	1.53	2.02	46.62	0.	0.	53.76	1.206	-23.	-41	0
28001	GTAC16	RESIDUA	33.	7.41	0.341 0.10	88.3	6.54	2.78	2.86	81.06	0.	-42.14	51.10	1.146	-33.	0	60
28001	GTWC16	RESIDUA	33.	1.00	0.099 0.10	48.3	3.58	1.52	2.02	47.12	0.	0.	54.24	1.217	-24.	-42	0
28001	GTWC16	RESIDUA	33.	7.72	0.315 0.10	82.4	6.11	2.60	2.73	86.63	0.	-44.20	53.87	1.208	-39.	0	58
28001	CC1626	RESIDUA	33.	1.00	0.097 0.10	48.3	3.66	1.56	2.12	47.21	0.	0.	54.55	1.224	-25.	-47	0
28001	CC1626	RESIDUA	33.	11.72	0.348 0.10	108.3	8.22	3.49	3.66	111.24	0.	-70.51	56.10	1.258	-59.	0	61
28001	CC1622	RESIDUA	33.	1.00	0.102 0.10	48.3	3.67	1.56	2.12	46.96	0.	0.	54.30	1.218	-25.	-48	0
28001	CC1622	RESIDUA	33.	10.53	0.356 0.10	114.1	8.66	3.68	3.68	101.48	0.	-62.69	54.81	1.229	-58.	0	64
28001	CC1222	RESIDUA	33.	1.00	0.103 0.10	47.6	3.61	1.54	2.11	46.91	0.	0.	54.17	1.215	-24.	-44	0
28001	CC1222	RESIDUA	33.	10.47	0.359 0.10	106.4	8.08	3.43	3.57	100.60	0.	-62.28	53.39	1.198	-50.	0	64
28001	CC0822	RESIDUA	33.	1.00	0.110 0.10	47.3	3.59	1.53	2.10	46.52	0.	0.	53.74	1.206	-22.	-41	0
28001	CC0822	RESIDUA	33.	8.29	0.360 0.10	83.6	6.35	2.70	2.95	85.01	0.	-47.94	49.07	1.101	-25.	0	63

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
			********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********													
28001	STIG15	RESIDUA	33.	1.00	0.037 0.10	48.5	3.58	1.53	2.31	50.38	0.	0.	57.81	1.297	-35.	-55 0
28001	STIG15	RESIDUA	33.	290.72	0.171 0.10	2270.3	168.16	71.49	142.09	2696.57	0.	********	1173.32	26.319	-4583.	0 58
28001	STIG10	RESIDUA	33.	1.00	0.052 0.10	47.5	3.52	1.50	2.19	49.55	0.	0.	56.75	1.273	-31.	-49 0
28001	STIG10	RESIDUA	33.	26.88	0.218 0.10	222.1	16.45	6.99	11.72	264.57	0.	-170.19	129.54	2.906	-342.	0 58
28001	STIG1S	RESIDUA	33.	1.00	0.060 0.10	47.0	3.48	1.48	2.20	49.17	0.	0.	56.33	1.264	-30.	-46 0
28001	STIG1S	RESIDUA	33.	15.77	0.228 0.10	136.2	10.09	4.29	7.50	166.30	0.	-97.14	91.03	2.042	-181.	0 57
28001	DEADV3	RESIDUA	33.	1.00	0.073 0.10	60.7	4.50	1.91	2.[illegible]	48.47	0.	0.	57.26	1.284	-39.	999 0
28001	DEADV3	RESIDUA	33.	17.95	0.286 0.10	352.1	26.08	11.09	9.[illegible]	171.02	0.	-111.48	106.54	2.390	-330.	0 62
28001	DEHTPM	RESIDUA	33.	1.00	0.109 0.10	62.2	4.61	1.96	2.49	46.60	0.	0.	55.66	1.248	-35.	0 55
28001	DEHTPM	RESIDUA	33.	7.57	0.345 0.10	185.2	13.71	5.83	5.55	81.82	0.	-43.21	63.71	1.429	-118.	0 68
28001	DESOA3	DISTILL	33.	1.00	0.062 0.10	66.0	4.89	2.08	2.52	60.14	0.	0.	69.63	1.562	-80.	0 56
28001	DESOA3	DISTILL	33.	20.94	0.248 0.10	516.0	38.22	16.25	14.00	251.32	0.	-131.13	188.65	4.232	-664.	0 59
28001	DESOA3	RESIDUA	33.	1.00	0.062 0.10	66.0	4.89	2.08	2.52	49.06	0.	0.	58.55	1.313	-46.	0 56
28001	DESOA3	RESIDUA	33.	20.94	0.248 0.10	516.0	38.22	16.25	14.00	205.02	0.	-131.13	142.36	3.193	-519.	0 62
28001	GTSOAD	DISTILL	33.	1.00	0.105 0.10	46.2	3.42	1.45	1.97	57.35	0.	0.	64.20	1.440	-54.	-67 0
28001	GTSOAD	DISTILL	33.	6.29	0.312 0.10	67.3	4.99	2.12	2.33	93.30	0.	-34.77	67.95	1.524	-76.	0 56
28001	GTRA08	DISTILL	33.	1.00	0.097 0.10	49.8	3.69	1.57	2.05	57.89	0.	0.	65.20	1.463	-59.	-89 0
28001	GTRA08	DISTILL	33.	10.53	0.338 0.10	126.2	9.35	3.97	3.87	127.80	0.	-62.67	82.32	1.846	-148.	0 57
28001	GTRA12	DISTILL	33.	1.00	0.099 0.10	50.1	3.71	1.58	2.06	57.73	0.	0.	65.07	1.460	-59.	-90 0
28001	GTRA12	DISTILL	33.	10.26	0.345 0.10	123.2	9.12	3.88	3.79	124.12	0.	-60.87	80.04	1.795	-140.	0 57
28001	GTRA16	DISTILL	33.	1.00	0.100 0.10	51.0	3.77	1.60	2.08	57.67	0.	0.	65.13	1.461	-59.	-96 0
28001	GTRA16	DISTILL	33.	9.55	0.341 0.10	123.7	9.16	3.90	3.79	118.58	0.	-56.24	79.19	1.776	-137.	0 57
28001	GTR208	DISTILL	33.	1.00	0.100 0.10	48.7	3.61	1.53	2.03	57.69	0.	0.	64.86	1.455	-57.	-81 0
28001	GTR208	DISTILL	33.	7.89	0.321 0.10	96.3	7.14	3.03	3.08	106.87	0.	-45.33	74.79	1.678	-111.	0 57
28001	GTR212	DISTILL	33.	1.00	0.100 0.10	49.3	3.65	1.55	2.04	57.71	0.	0.	64.96	1.457	-58.	-84 0
28001	GTR212	DISTILL	33.	8.47	0.327 0.10	104.0	7.70	3.27	3.28	111.14	0.	-49.10	76.30	1.712	-119.	0 57
28001	GTR216	DISTILL	33.	1.00	0.102 0.10	50.1	3.71	1.58	2.06	57.59	0.	0.	64.93	1.456	-58.	-89 0
28001	GTR216	DISTILL	33.	8.68	0.336 0.10	111.7	8.27	3.52	3.48	111.60	0.	-50.51	76.35	1.713	-123.	0 57
28001	GTRW08	DISTILL	33.	1.00	0.081 0.10	49.7	3.68	1.56	2.05	58.87	0.	0.	66.16	1.484	-62.	-91 0
28001	GTRW08	DISTILL	33.	12.55	0.297 0.10	127.2	9.42	4.00	3.95	154.93	0.	-75.97	96.33	2.161	-193.	0 57
28001	GTRW12	DISTILL	33.	1.00	0.087 0.10	49.6	3.68	1.56	2.05	58.49	0.	0.	65.77	1.475	-61.	-89 0
28001	GTRW12	DISTILL	33.	12.74	0.320 0.10	128.0	9.48	4.03	3.97	151.58	0.	-77.17	91.89	2.061	-179.	0 57
28001	GTRW16	DISTILL	33.	1.00	0.089 0.10	50.2	3.72	1.58	2.06	58.40	0.	0.	65.76	1.475	-61.	-93 0
28001	GTRW16	DISTILL	33.	11.78	0.319 0.10	126.6	9.38	3.99	3.91	142.96	0.	-70.89	89.35	2.004	-171.	0 57
28001	GTR308	DISTILL	33.	1.00	0.075 0.10	48.8	3.61	1.54	2.04	59.25	0.	0.	66.44	1.490	-62.	-86 0
28001	GTR308	DISTILL	33.	9.59	0.257 0.10	96.1	7.12	3.03	3.13	133.95	0.	-56.45	90.78	2.036	-161.	0 56
28001	GTR312	DISTILL	33.	1.00	0.091 0.10	48.7	3.61	1.53	2.03	58.28	0.	0.	65.45	1.468	-59.	-83 0
28001	GTR312	DISTILL	33.	10.24	0.314 0.10	100.8	7.46	3.17	3.24	129.65	0.	-60.73	82.80	1.857	-138.	0 56
28001	GTR316	DISTILL	33.	1.00	0.090 0.10	49.4	3.66	1.56	2.04	58.32	0.	0.	65.57	1.471	-60.	-87 0
28001	GTR316	DISTILL	33.	10.08	0.311 0.10	103.5	7.67	3.26	3.31	128.76	0.	-59.68	83.32	1.869	-141.	0 57
28001	FCPADS	DISTILL	33.	1.00	0.069 0.10	58.8	4.35	1.85	5.29	59.67	0.	0.	71.16	1.596	-82.	999 0
28001	FCPADS	DISTILL	33.	22.17	0.279 0.10	379.9	28.14	11.96	80.02	252.77	0.	-139.22	233.68	5.242	-752.	0 59
28001	FCMCDS	DISTILL	33.	1.00	0.092 0.10	59.8	4.43	1.88	5.06	58.19	0.	0.	69.57	1.560	-78.	999 0
28001	FCMCDS	DISTILL	33.	17.54	0.360 0.10	340.4	25.21	10.72	60.04	184.43	0.	-108.76	171.64	3.850	-536.	0 60

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28002	ONOCGN	COAL-FG	77.	0.	0. 0.25	58.4	4.43	1.88	3.09	22.95	26.03	0.	58.38	1.000	0.	0	0
28002	STM141	RESIDUA	77.	0.73	0.181 0.25	38.7	2.93	1.25	1.63	46.68	7.14	0.	59.63	1.021	3.	-9	0
28002	STM141	COAL-FG	77.	0.73	0.181 0.25	73.8	5.60	2.38	3.88	27.11	7.14	0.	46.11	0.790	31.	45	3
28002	STM141	COAL-AF	77.	0.73	0.181 0.25	56.6	4.29	1.82	3.76	27.11	7.14	0.	44.13	0.756	45.	999	0
28002	STM088	RESIDUA	77.	0.51	0.126 0.25	35.1	2.67	1.13	1.53	44.52	12.84	0.	62.69	1.074	-2.	-16	0
28002	STM088	COAL-FG	77.	0.51	0.126 0.25	69.0	5.24	2.23	3.61	25.85	12.84	0.	49.77	0.853	22.	45	3
28002	STM088	COAL-AF	77.	0.51	0.126 0.25	54.6	4.14	1.76	3.63	25.85	12.84	0.	48.23	0.826	34.	999	0
28002	PFBSTM	COAL-PF	77.	1.00	0.243 0.25	77.6	5.89	2.50	6.53	28.92	0.	0.	43.84	0.751	36.	43	3
28002	PFBSTM	COAL-PF	77.	1.23	0.274 0.25	73.0	5.54	2.36	6.58	30.32	0.	-3.66	41.14	0.705	47.	61	2
28002	TISTMT	RESIDUA	77.	1.00	0.245 0.25	146.6	11.13	4.73	4.70	49.67	0.	0.	70.22	1.203	-79.	0	73
28002	TISTMT	RESIDUA	77.	1.67	0.322 0.25	199.1	15.11	6.42	5.77	56.48	0.	-10.47	73.30	1.256	-114.	0	96
28002	TISTMT	COAL	77.	1.00	0.245 0.25	191.8	14.56	6.19	7.32	28.84	0.	0.	56.91	0.975	-59.	8	12
28002	TISTMT	COAL	77.	1.67	0.322 0.25	250.4	19.01	8.08	8.47	32.79	0.	-10.47	57.88	0.991	-91.	5	13
28002	TIHRSG	RESIDUA	77.	0.87	0.158 0.25	178.8	13.24	5.63	5.03	52.01	3.34	0.	79.25	1.357	-121.	0	65
28002	TIHRSG	COAL	77.	0.87	0.158 0.25	227.1	17.23	7.33	7.65	30.20	3.34	0.	65.74	1.126	-104.	0	26
28002	STIRL	DISTILL	77.	1.00	0.177 0.25	74.4	5.51	2.34	2.84	66.36	0.	0.	77.06	1.320	-65.	0	56
28002	STIRL	DISTILL	77.	2.11	0.259 0.25	113.0	8.37	3.56	3.57	86.30	0.	-17.39	84.42	1.446	-106.	0	58
28002	STIRL	RESIDUA	77.	1.00	0.177 0.25	74.5	5.52	2.35	2.85	54.13	0.	0.	64.84	1.111	-27.	0	58
28002	STIRL	RESIDUA	77.	2.11	0.259 0.25	113.2	8.38	3.56	3.58	70.40	0.	-17.39	68.54	1.174	-57.	0	63
28002	STIRL	COAL	77.	1.00	0.177 0.25	129.1	9.56	4.07	5.87	31.43	0.	0.	50.93	0.872	-9.	12	8
28002	STIRL	COAL	77.	2.11	0.259 0.25	201.7	14.94	6.35	7.62	40.88	0.	-17.39	52.41	0.898	-48.	8	10
28002	HEGT85	COAL-AF	77.	1.00	0.057 0.25	157.8	11.97	5.09	6.80	36.02	0.	0.	59.87	1.026	-52.	3	16
28002	HEGT85	COAL-AF	77.	10.86	0.125 0.25	808.8	61.38	26.09	30.59	164.96	0.	-154.06	128.96	2.209	-582.	0	192
28002	HEGT60	COAL-AF	77.	1.00	0.075 0.25	149.9	11.38	4.84	6.63	35.33	0.	0.	58.17	0.996	-43.	5	13
28002	HEGT60	COAL-AF	77.	3.57	0.131 0.25	263.9	20.03	8.52	11.17	67.11	0.	-40.08	66.74	1.143	-125.	1	24
28002	HEGT00	COAL-AF	77.	1.00	0.090 0.25	130.9	9.93	4.22	6.22	34.73	0.	0.	55.10	0.944	-25.	8	10
28002	HEGT00	COAL-AF	77.	1.44	0.111 0.25	144.9	11.00	4.68	6.53	39.93	0.	-6.90	55.23	0.946	-32.	7	10
28002	FCMCCL	COAL	77.	1.00	0.213 0.25	134.2	10.43	4.43	7.40	30.05	0.	0.	52.32	0.896	-19.	10	9
28002	FCMCCL	COAL	77.	2.57	0.336 0.25	177.5	13.82	5.88	11.12	41.20	0.	-24.52	47.50	0.814	-26.	11	8
28002	FCSTCL	COAL	77.	1.00	0.220 0.25	131.8	10.25	4.36	7.14	29.76	0.	0.	51.50	0.882	-15.	11	8
28002	FCSTCL	COAL	77.	3.74	0.394 0.25	211.2	16.42	6.98	13.23	48.45	0.	-42.83	42.25	0.724	-26.	12	8
28002	IGGTST	COAL	77.	1.00	0.173 0.25	125.3	9.74	4.14	5.19	31.57	0.	0.	50.65	0.867	-9.	12	8
28002	IGGTST	COAL	77.	2.57	0.274 0.25	169.7	13.19	5.61	5.39	45.14	0.	-24.59	44.75	0.766	-13.	13	7
28002	GTSOAR	RESIDUA	77.	1.00	0.178 0.25	56.5	4.19	1.78	2.30	54.02	0.	0.	62.29	1.067	-11.	-62	0
28002	GTSOAR	RESIDUA	77.	2.74	0.288 0.25	85.9	6.36	2.70	2.80	79.21	0.	-27.12	63.96	1.095	-30.	0	61
28002	GTAC08	RESIDUA	77.	1.00	0.212 0.25	49.5	3.67	1.56	2.11	51.79	0.	0.	59.13	1.013	3.	-10	0
28002	GTAC08	RESIDUA	77.	2.10	0.310 0.25	62.0	4.59	1.95	2.16	65.28	0.	-17.17	56.81	0.973	4.	44	3
28002	GTAC12	RESIDUA	77.	1.00	0.209 0.25	52.8	3.91	1.66	2.20	52.01	0.	0.	59.78	1.024	-1.	-17	0
28002	GTAC12	RESIDUA	77.	2.63	0.333 0.25	74.6	5.52	2.35	2.49	72.36	0.	-25.45	57.28	0.981	-3.	10	8
28002	GTAC16	RESIDUA	77.	1.00	0.205 0.25	54.9	4.06	1.73	2.25	52.28	0.	0.	60.33	1.033	-4.	-26	0
28002	GTAC16	RESIDUA	77.	2.99	0.341 0.25	85.4	6.32	2.69	2.78	77.67	0.	-31.06	58.40	1.000	-12.	5	13
28002	GTWC16	RESIDUA	77.	1.00	0.187 0.25	53.0	3.93	1.67	2.21	53.48	0.	0.	61.29	1.050	-6.	-28	0
28002	GTWC16	RESIDUA	77.	3.11	0.315 0.25	79.9	5.92	2.52	2.66	83.01	0.	-33.03	61.07	1.046	-18.	0	68
28002	CC1626	RESIDUA	77.	1.00	0.183 0.25	54.0	4.10	1.74	2.37	53.70	0.	0.	61.91	1.060	-9.	-44	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE- FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28002 CC1626	RESIDUA	77.	4.73	0.348 0.25	102.7	7.79	3.31	3.50	106.58	0.	-58.24	62.94	1.078	-35.	0	98
28002 CC1622	RESIDUA	77.	1.00	0.192 0.25	55.3	4.20	1.78	2.38	53.10	0.	0.	61.46	1.053	-8.	-52	0
28002 CC1622	RESIDUA	77.	4.25	0.356 0.25	110.3	8.37	3.56	3.58	97.24	0.	-50.75	61.99	1.062	-36.	0	999
28002 CC1222	RESIDUA	77.	1.00	0.194 0.25	53.8	4.09	1.74	2.36	52.98	0.	0.	61.16	1.048	-6.	-36	0
28002 CC1222	RESIDUA	77.	4.22	0.359 0.25	99.2	7.53	3.20	3.38	96.39	0.	-50.37	60.14	1.030	-25.	0	26
28002 CC0822	RESIDUA	77.	1.00	0.208 0.25	52.3	3.97	1.69	2.32	52.06	0.	0.	60.04	1.028	-2.	-20	0
28002 CC0822	RESIDUA	77.	3.34	0.360 0.25	81.0	6.15	2.61	2.87	81.46	0.	-36.61	56.48	0.967	-5.	11	3
28002 STIG15	RESIDUA	77.	1.00	0.069 0.25	59.0	4.37	1.86	3.07	61.21	0.	0.	70.51	1.208	-38.	999	1
28002 STIG15	RESIDUA	77.	117.27	0.171 0.25	2177.7	161.30	68.58	136.27	2583.80	0.	*******	1133.93	19.423	-4373.	0	56
28002 STIG10	RESIDUA	77.	1.00	0.099 0.25	56.8	4.21	1.79	2.79	59.25	0.	0.	68.03	1.165	-29.	151	0
28002 STIG10	RESIDUA	77.	10.84	0.218 0.25	214.0	15.85	6.74	11.29	253.50	0.	-153.76	133.62	2.289	-309.	0	58
28002 STIG1S	RESIDUA	77.	1.00	0.113 0.25	52.4	3.88	1.65	2.71	58.35	0.	0.	66.58	1.140	-22.	-59	0
28002 STIG1S	RESIDUA	77.	6.36	0.228 0.25	137.7	10.20	4.34	7.39	159.34	0.	-83.76	97.51	1.670	-159.	0	58
28002 DEADV3	RESIDUA	77.	1.00	0.138 0.25	86.3	6.39	2.72	3.14	56.69	0.	0.	68.93	1.181	-45.	0	58
28002 DEADV3	RESIDUA	77.	7.24	0.286 0.25	337.6	25.01	10.63	9.46	163.87	0.	-97.49	111.46	1.909	-296.	0	64
28002 DEHTPM	RESIDUA	77.	1.00	0.205 0.25	86.4	6.40	2.72	3.21	52.25	0.	0.	64.58	1.106	-32.	0	61
28002 DEHTPM	RESIDUA	77.	3.05	0.345 0.25	177.5	13.15	5.59	5.35	78.40	0.	-32.08	70.40	1.206	-93.	0	100
28002 DESOA3	DISTILL	77.	1.00	0.116 0.25	98.9	7.32	3.11	3.46	71.21	0.	0.	85.10	1.458	-102.	0	57
28002 DESOA3	DISTILL	77.	8.45	0.248 0.25	494.7	36.64	15.58	13.45	240.81	0.	-116.33	190.15	3.257	-616.	0	60
28002 DESOA3	RESIDUA	77.	1.00	0.116 0.25	98.9	7.32	3.11	3.46	58.09	0.	0.	71.99	1.233	-61.	0	59
28002 DESOA3	RESIDUA	77.	8.45	0.248 0.25	494.7	36.64	15.58	13.45	196.45	0.	-116.33	145.79	2.497	-477.	0	63
28002 GTSOAD	DISTILL	77.	1.00	0.199 0.25	49.5	3.67	1.56	2.12	64.58	0.	0.	71.93	1.232	-38.	-69	0
28002 GTSOAD	DISTILL	77.	2.54	0.312 0.25	65.2	4.83	2.05	2.26	89.39	0.	-24.00	74.53	1.277	-53.	0	56
28002 GTRA08	DISTILL	77.	1.00	0.183 0.25	58.8	4.35	1.85	2.35	65.86	0.	0.	74.42	1.275	-50.	999	0
28002 GTRA08	DISTILL	77.	4.25	0.338 0.25	122.3	9.06	3.85	3.77	122.45	0.	-50.74	88.39	1.514	-123.	0	58
28002 GTRA12	DISTILL	77.	1.00	0.188 0.25	57.5	4.26	1.81	2.32	65.48	0.	0.	73.87	1.265	-47.	999	0
28002 GTRA12	DISTILL	77.	4.14	0.345 0.25	119.3	8.83	3.76	3.68	118.93	0.	-49.01	86.19	1.476	-115.	0	58
28002 GTRA16	DISTILL	77.	1.00	0.189 0.25	59.0	4.37	1.86	2.36	65.35	0.	0.	73.94	1.267	-48.	999	0
28002 GTRA16	DISTILL	77.	3.85	0.341 0.25	119.8	8.87	3.77	3.68	113.63	0.	-44.57	85.38	1.462	-113.	0	58
28002 GTR208	DISTILL	77.	1.00	0.189 0.25	54.5	4.04	1.72	2.25	65.38	0.	0.	73.38	1.257	-44.	134	0
28002 GTR208	DISTILL	77.	3.18	0.321 0.25	88.8	6.58	2.80	2.88	102.40	0.	-34.12	80.54	1.379	-83.	0	57
28002 GTR212	DISTILL	77.	1.00	0.188 0.25	55.7	4.12	1.75	2.28	65.44	0.	0.	73.59	1.261	-46.	171	0
28002 GTR212	DISTILL	77.	3.42	0.327 0.25	100.7	7.46	3.17	3.19	106.50	0.	-37.72	82.59	1.415	-95.	0	57
28002 GTR216	DISTILL	77.	1.00	0.192 0.25	57.4	4.25	1.81	2.32	65.14	0.	0.	73.52	1.259	-46.	999	0
28002 GTR216	DISTILL	77.	3.50	0.336 0.25	108.1	8.01	3.40	3.38	106.93	0.	-39.08	82.64	1.415	-98.	0	58
28002 GTRW08	DISTILL	77.	1.00	0.154 0.25	55.7	4.12	1.75	2.29	68.19	0.	0.	76.35	1.308	-54.	199	0
28002 GTRW08	DISTILL	77.	5.06	0.297 0.25	123.3	9.13	3.88	3.84	148.45	0.	-63.47	101.84	1.744	-166.	0	57
28002 GTRW12	DISTILL	77.	1.00	0.165 0.25	55.6	4.12	1.75	2.28	67.28	0.	0.	75.43	1.292	-51.	188	0
28002 GTRW12	DISTILL	77.	5.14	0.320 0.25	124.2	9.20	3.91	3.86	145.24	0.	-64.63	97.58	1.671	-153.	0	57
28002 GTRW16	DISTILL	77.	1.00	0.168 0.25	56.6	4.19	1.78	2.30	67.07	0.	0.	75.35	1.291	-52.	999	0
28002 GTRW16	DISTILL	77.	4.75	0.319 0.25	122.8	9.10	3.87	3.81	136.98	0.	-58.61	95.14	1.630	-145.	0	57
28002 GTR308	DISTILL	77.	1.00	0.143 0.25	54.3	4.02	1.71	2.26	69.11	0.	0.	77.09	1.320	-56.	158	0
28002 GTR308	DISTILL	77.	3.87	0.257 0.25	93.1	6.90	2.93	3.05	128.35	0.	-44.77	96.46	1.652	-135.	0	56
28002 GTR312	DISTILL	77.	1.00	0.171 0.25	54.0	4.00	1.70	2.24	66.80	0.	0.	74.73	1.280	-48.	134	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28002 GTR312	DISTILL	77.	4.13	0.314 0.25	97.7	7.24	3.08	3.15	124.23	0.	-48.87	88.83	1.521	-113.	0	57
28002 GTR316	DISTILL	77.	1.00	0.170 0.25	55.1	4.08	1.74	2.27	66.88	0.	0.	74.96	1.284	-50.	165	0
28002 GTR316	DISTILL	77.	4.06	0.311 0.25	100.4	7.44	3.16	3.22	123.37	0.	-47.86	89.33	1.530	-116.	0	57
28002 FCPADS	DISTILL	77.	1.00	0.130 0.25	81.2	6.02	2.56	10.23	70.10	0.	0.	88.91	1.523	-107.	0	57
28002 FCPADS	DISTILL	77.	8.94	0.279 0.25	364.3	26.98	11.47	76.70	242.20	0.	-124.08	233.27	3.996	-700.	0	59
28002 FCMCDS	DISTILL	77.	1.00	0.174 0.25	84.3	6.24	2.65	9.71	66.57	0.	0.	85.18	1.459	-96.	0	57
28002 FCMCDS	DISTILL	77.	7.08	0.360 0.25	326.4	24.18	10.28	57.55	176.71	0.	-94.89	173.83	2.977	-494.	0	60
28003 ONOCGN	COAL-FG	97.	0.	0. 0.35	54.4	4.13	1.76	2.88	20.62	32.77	0.	62.16	1.000	0.	0	0
28003 STM141	RESIDUA	97.	0.52	0.156 0.35	35.9	2.72	1.16	1.54	41.94	15.80	0.	63.16	1.016	6.	-9	0
28003 STM141	COAL-FG	97.	0.52	0.156 0.35	68.5	5.20	2.21	3.61	24.35	15.80	0.	51.18	0.823	28.	44	3
28003 STM141	COAL-AF	97.	0.52	0.156 0.35	53.0	4.02	1.71	3.49	24.35	15.80	0.	49.38	0.794	41.	999	0
28003 STM088	RESIDUA	97.	0.36	0.109 0.35	32.6	2.47	1.05	1.44	40.00	20.93	0.	65.89	1.060	-1.	-15	0
28003 STM088	COAL-FG	97.	0.36	0.109 0.35	64.0	4.86	2.07	3.37	23.23	20.93	0.	54.44	0.876	20.	45	3
28003 STM088	COAL-AF	97.	0.36	0.109 0.35	51.1	3.88	1.65	3.37	23.23	20.93	0.	53.05	0.854	30.	999	0
28003 PFBSTM	COAL-PF	97.	0.88	0.258 0.35	68.0	5.16	2.19	6.03	27.24	3.91	0.	44.53	0.716	48.	66	2
28003 TISTMT	RESIDUA	97.	1.00	0.295 0.35	163.8	12.43	5.29	5.08	48.29	0.	0.	71.09	1.144	-80.	0	999
28003 TISTMT	RESIDUA	97.	1.19	0.322 0.35	183.1	13.89	5.91	5.34	50.74	0.	-3.77	72.11	1.160	-93.	0	999
28003 TISTMT	COAL	97.	1.00	0.295 0.35	212.9	16.16	6.87	7.72	28.04	0.	0.	58.78	0.946	-66.	6	11
28003 TISTMT	COAL	97.	1.19	0.322 0.35	230.5	17.49	7.44	7.82	29.46	0.	-3.77	58.43	0.940	-73.	6	11
28003 TIHRSG	RESIDUA	97.	0.62	0.136 0.35	164.4	12.17	5.18	4.65	46.73	12.38	0.	81.12	1.305	-110.	0	65
28003 TIHRSG	COAL	97.	0.62	0.136 0.35	208.9	15.85	6.74	7.05	27.14	12.38	0.	69.16	1.113	-96.	0	27
28003 STIRL	DISTILL	97.	1.00	0.213 0.35	82.2	6.09	2.59	3.02	66.08	0.	0.	77.78	1.251	-61.	0	57
28003 STIRL	DISTILL	97.	1.51	0.259 0.35	101.9	7.55	3.21	3.27	77.54	0.	-9.99	81.57	1.312	-82.	0	58
28003 STIRL	RESIDUA	97.	1.00	0.213 0.35	82.3	6.10	2.59	3.02	53.91	0.	0.	65.62	1.056	-23.	0	72
28003 STIRL	RESIDUA	97.	1.51	0.259 0.35	102.0	7.56	3.21	3.27	63.26	0.	-9.99	67.31	1.083	-38.	0	83
28003 STIRL	COAL	97.	1.00	0.213 0.35	143.5	10.63	4.52	6.19	31.30	0.	0.	52.64	0.847	-11.	12	8
28003 STIRL	COAL	97.	1.51	0.259 0.35	180.6	13.38	5.69	6.91	36.73	0.	-9.99	52.71	0.848	-29.	10	9
28003 HEGT85	COAL-AF	97.	1.00	0.068 0.35	172.4	13.08	5.56	7.28	37.07	0.	0.	63.00	1.014	-59.	4	14
28003 HEGT85	COAL-AF	97.	7.75	0.125 0.35	749.6	56.88	24.18	28.13	148.21	0.	-132.79	124.62	2.005	-530.	0	397
28003 HEGT60	COAL-AF	97.	1.00	0.090 0.35	154.2	11.70	4.98	6.95	35.21	0.	0.	59.74	0.961	-40.	7	11
28003 HEGT60	COAL-AF	97.	2.54	0.131 0.35	244.7	18.57	7.89	10.27	60.29	0.	-30.38	66.65	1.072	-106.	3	18
28003 HEGT00	COAL-AF	97.	1.00	0.109 0.35	135.4	10.28	4.37	6.25	35.45	0.	0.	56.34	0.907	-21.	10	9
28003 HEGT00	COAL-AF	97.	1.03	0.111 0.35	134.3	10.19	4.33	6.01	35.88	0.	-0.57	55.85	0.898	-19.	10	9
28003 FCMCCL	COAL	97.	1.00	0.257 0.35	133.0	10.34	4.40	7.76	29.56	0.	0.	52.06	0.838	-8.	13	7
28003 FCMCCL	COAL	97.	1.83	0.336 0.35	164.3	12.77	5.43	10.16	37.02	0.	-16.40	48.98	0.788	-14.	12	7
28003 FCSTCL	COAL	97.	1.00	0.266 0.35	137.6	10.70	4.55	7.61	29.20	0.	0.	52.06	0.838	-10.	12	7
28003 FCSTCL	COAL	97.	2.67	0.394 0.35	195.1	15.17	6.45	12.09	43.53	0.	-32.85	44.39	0.714	-15.	13	7
28003 IGGTST	COAL	97.	1.00	0.209 0.35	120.0	9.56	4.07	4.95	31.47	0.	0.	50.05	0.805	4.	15	6
28003 IGGTST	COAL	97.	1.84	0.274 0.35	155.7	12.11	5.15	5.00	40.56	0.	-16.46	46.36	0.746	-1.	14	7
28003 GTSOAR	RESIDUA	97.	1.00	0.215 0.35	55.1	4.08	1.74	2.26	53.77	0.	0.	61.84	0.995	1.	999	0
28003 GTSOAR	RESIDUA	97.	1.95	0.288 0.35	73.1	5.41	2.30	2.45	71.17	0.	-18.74	62.60	1.007	-9.	2	18
28003 GTAC08	RESIDUA	97.	1.00	0.257 0.35	50.3	3.73	1.58	2.11	50.95	0.	0.	58.37	0.939	15.	999	0
28003 GTAC08	RESIDUA	97.	1.50	0.310 0.35	57.3	4.24	1.80	2.02	58.65	0.	-9.80	56.91	0.916	16.	167	1
28003 GTAC12	RESIDUA	97.	1.00	0.252 0.35	53.5	3.96	1.68	2.20	51.23	0.	0.	59.08	0.951	11.	999	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST x10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28003	GTAC12	RESIDUA	97.	1.88	0.333	0.35	68.6	5.08	2.16	2.32	65.02	0.	-17.23	57.35	0.923	9.	26	4
28003	GTAC16	RESIDUA	97.	1.00	0.247	0.35	53.6	3.97	1.69	2.21	51.58	0.	0.	59.45	0.957	10.	999	0
28003	GTAC16	RESIDUA	97.	2.13	0.341	0.35	78.5	5.81	2.47	2.58	69.79	0.	-22.28	58.38	0.939	1.	16	6
28003	GTWC16	RESIDUA	97.	1.00	0.225	0.35	51.0	3.77	1.60	2.16	53.08	0.	0.	60.62	0.975	7.	999	0
28003	GTWC16	RESIDUA	97.	2.22	0.315	0.35	74.0	5.48	2.33	2.49	74.58	0.	-24.05	60.83	0.979	-4.	10	9
28003	CC1626	RESIDUA	97.	1.00	0.221	0.35	55.7	4.23	1.80	2.42	53.36	0.	0.	61.81	0.994	1.	22	5
28003	CC1626	RESIDUA	97.	3.37	0.348	0.35	95.0	7.21	3.06	3.27	95.76	0.	-46.70	62.61	1.007	-21.	4	15
28003	CC1622	RESIDUA	97.	1.00	0.232	0.35	57.6	4.37	1.86	2.44	52.61	0.	0.	61.28	0.986	1.	21	5
28003	CC1622	RESIDUA	97.	3.03	0.356	0.35	97.5	7.40	3.15	3.23	87.37	0.	-39.97	61.18	0.984	-17.	7	11
28003	CC1222	RESIDUA	97.	1.00	0.235	0.35	55.8	4.24	1.80	2.42	52.45	0.	0.	60.91	0.980	3.	51	2
28003	CC1222	RESIDUA	97.	3.01	0.359	0.35	91.3	6.93	2.95	3.15	86.60	0.	-39.62	60.00	0.965	-11.	9	9
28003	CC0822	RESIDUA	97.	1.00	0.252	0.35	50.5	3.83	1.63	2.28	51.29	0.	0.	59.03	0.950	12.	999	0
28003	CC0822	RESIDUA	97.	2.39	0.360	0.35	71.9	5.46	2.32	2.61	73.19	0.	-27.27	56.32	0.906	10.	24	4
28003	STIG15	RESIDUA	97.	1.00	0.083	0.35	61.5	4.55	1.94	3.32	62.82	0.	0.	72.63	1.169	-36.	0	56
28003	STIG15	RESIDUA	97.	83.69	0.171	0.35	1960.1	145.18	61.73	122.67	2321.50	0.	*******	1025.05	16.492	-3919.	0	58
28003	STIG10	RESIDUA	97.	1.00	0.119	0.35	55.5	4.11	1.75	2.89	60.35	0.	0.	69.10	1.112	-22.	999	0
28003	STIG10	RESIDUA	97.	7.74	0.218	0.35	193.4	14.32	6.09	10.23	227.77	0.	-132.52	125.90	2.026	-265.	0	58
28003	STIG1S	RESIDUA	97.	1.00	0.136	0.35	54.1	4.01	1.71	2.89	59.22	0.	0.	67.82	1.091	-17.	166	0
28003	STIG1S	RESIDUA	97.	4.54	0.228	0.35	124.6	9.23	3.92	6.71	143.17	0.	-69.62	93.40	1.503	-130.	0	58
28003	DEADV3	RESIDUA	97.	1.00	0.166	0.35	92.4	6.85	2.91	3.31	57.12	0.	0.	70.19	1.129	-42.	0	62
28003	DEADV3	RESIDUA	97.	5.17	0.286	0.35	315.2	23.34	9.92	8.86	147.23	0.	-81.97	107.39	1.728	-263.	0	65
28003	DEHTPM	RESIDUA	97.	1.00	0.248	0.35	93.4	6.92	2.94	3.40	51.53	0.	0.	64.79	1.042	-26.	0	999
28003	DEHTPM	RESIDUA	97.	2.18	0.345	0.35	160.0	11.85	5.04	4.87	70.44	0.	-23.19	69.01	1.110	-70.	0	999
28003	DESOA3	DISTILL	97.	1.00	0.141	0.35	108.3	8.02	3.41	3.71	72.19	0.	0.	87.34	1.405	-103.	0	58
28003	DESOA3	DISTILL	97.	6.03	0.248	0.35	445.1	32.96	14.02	12.17	216.36	0.	-98.89	176.62	2.842	-541.	0	60
28003	DESOA3	RESIDUA	97.	1.00	0.141	0.35	108.3	8.02	3.41	3.71	58.80	0.	0.	74.04	1.191	-62.	0	62
28003	DESOA3	RESIDUA	97.	6.03	0.248	0.35	445.1	32.96	14.02	12.17	176.51	0.	-98.89	136.77	2.200	-416.	0	64
28003	GTSOAD	DISTILL	97.	1.00	0.240	0.35	49.5	3.66	1.56	2.11	63.85	0.	0.	71.18	1.145	-25.	-74	0
28003	GTSOAD	DISTILL	97.	1.81	0.312	0.35	60.1	4.45	1.89	2.11	80.32	0.	-15.93	72.84	1.172	-35.	0	56
28003	GTRA08	DISTILL	97.	1.00	0.221	0.35	61.2	4.53	1.93	2.42	65.46	0.	0.	74.33	1.196	-41.	0	56
28003	GTRA08	DISTILL	97.	3.03	0.338	0.35	111.0	8.22	3.49	3.46	110.02	0.	-39.95	85.24	1.371	-98.	0	58
28003	GTRA12	DISTILL	97.	1.00	0.227	0.35	59.9	4.44	1.89	2.38	64.97	0.	0.	73.68	1.185	-38.	0	56
28003	GTRA12	DISTILL	97.	2.95	0.345	0.35	107.7	7.97	3.39	3.37	106.86	0.	-38.40	83.19	1.338	-90.	0	58
28003	GTRA16	DISTILL	97.	1.00	0.228	0.35	63.8	4.72	2.01	2.48	64.82	0.	0.	74.03	1.191	-41.	0	56
28003	GTRA16	DISTILL	97.	2.75	0.341	0.35	108.2	8.01	3.41	3.37	102.09	0.	-34.42	82.46	1.327	-88.	0	58
28003	GTR208	DISTILL	97.	1.00	0.228	0.35	55.4	4.10	1.74	2.26	64.86	0.	0.	72.97	1.174	-34.	999	0
28003	GTR208	DISTILL	97.	2.27	0.321	0.35	79.6	5.90	2.51	2.63	92.00	0.	-25.02	78.02	1.255	-61.	0	57
28003	GTR212	DISTILL	97.	1.00	0.227	0.35	56.7	4.20	1.78	2.30	64.92	0.	0.	73.21	1.178	-35.	0	55
28003	GTR212	DISTILL	97.	2.44	0.327	0.35	85.8	6.36	2.70	2.79	95.68	0.	-28.26	79.27	1.275	-68.	0	57
28003	GTR216	DISTILL	97.	1.00	0.232	0.35	58.8	4.36	1.85	2.35	64.55	0.	0.	73.11	1.176	-36.	0	56
28003	GTR216	DISTILL	97.	2.50	0.336	0.35	92.3	6.84	2.91	2.96	96.08	0.	-29.48	79.30	1.276	-71.	0	58
28003	GTRW08	DISTILL	97.	1.00	0.186	0.35	57.5	4.26	1.8	2.34	68.39	0.	0.	76.79	1.236	-47.	0	56
28003	GTRW08	DISTILL	97.	3.61	0.297	0.35	111.9	8.29	3.	3.53	133.38	0.	-51.39	97.33	1.566	-136.	0	57
28003	GTRW12	DISTILL	97.	1.00	0.200	0.35	57.4	4.25	1.8	2.33	67.24	0.	0.	75.64	1.217	-43.	0	56

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********																
28003 GTRW12	DISTILL	97.	3.67	0.320 0.35	112.7	8.35	3.55	3.54	130.49	0.	-52.43	93.50	1.504	-125.	0	57
28003 GTRW16	DISTILL	97.	1.00	0.203 0.35	58.5	4.33	1.84	2.36	66.98	0.	0.	75.51	1.215	-43.	0	56
28003 GTRW16	DISTILL	97.	3.39	0.319 0.35	103.3	7.65	3.25	3.29	123.07	0.	-47.03	90.25	1.452	-110.	0	57
28003 GTR308	DISTILL	97.	1.00	0.172 0.35	55.7	4.13	1.75	2.30	69.54	0.	0.	77.72	1.250	-49.	999	0
28003 GTR308	DISTILL	97.	2.76	0.257 0.35	86.1	6.38	2.71	2.85	115.32	0.	-34.60	92.66	1.491	-110.	0	56
28003 GTR312	DISTILL	97.	1.00	0.207 0.35	55.4	4.10	1.74	2.28	66.63	0.	0.	74.76	1.203	-39.	999	0
28003 GTR312	DISTILL	97.	2.95	0.314 0.35	88.2	6.53	2.79	2.89	111.62	0.	-38.28	85.54	1.376	-88.	0	57
28003 GTR316	DISTILL	97.	1.00	0.206 0.35	56.7	4.20	1.79	2.31	66.73	0.	0.	75.03	1.207	-41.	0	55
28003 GTR316	DISTILL	97.	2.90	0.311 0.35	90.7	6.72	2.86	2.95	110.85	0.	-37.37	86.00	1.384	-91.	0	57
28003 FCPADS	DISTILL	97.	1.00	0.157 0.35	86.0	6.37	2.71	12.29	70.80	0.	0.	92.17	1.483	-110.	0	58
28003 FCPADS	DISTILL	97.	6.38	0.279 0.35	327.9	24.29	10.33	68.95	217.61	0.	-105.85	215.33	3.464	-616.	0	59
28003 FCMCDS	DISTILL	97.	1.00	0.210 0.35	89.5	6.63	2.82	11.63	66.35	0.	0.	87.42	1.407	-96.	0	58
28003 FCMCDS	DISTILL	97.	5.05	0.360 0.35	299.7	22.20	9.44	51.89	158.77	0.	-79.63	162.68	2.617	-436.	0	60
28121 ONOCGN	COAL-FG	120.	0.	0. 1.55	78.9	1.44	0.61	1.20	5.60	39.26	0.	48.10	1.000	0.	0	0
28121 STM141	RESIDUA	120.	0.15	0.076 1.55	12.5	0.95	0.40	0.75	11.91	33.28	0.	47.29	0.983	6.	999	0
28121 STM141	COAL-FG	120.	0.15	0.076 1.55	25.3	1.92	0.82	1.56	6.92	33.28	0.	44.49	0.925	8.	35	3
28121 STM141	COAL-AF	120.	0.15	0.076 1.55	18.5	1.40	0.60	1.40	6.92	33.28	0.	43.60	0.906	14.	999	0
28121 STM088	RESIDUA	120.	0.11	0.057 1.55	11.2	0.85	0.36	0.72	11.35	34.77	0.	48.05	0.999	4.	-4	0
28121 STM088	COAL-FG	120.	0.11	0.057 1.55	23.4	1.78	0.76	1.47	6.59	34.77	0.	45.36	0.943	6.	36	3
28121 STM088	COAL-AF	120.	0.11	0.057 1.55	17.5	1.33	0.57	1.35	6.59	34.77	0.	44.60	0.927	12.	999	0
28121 PFBSTM	COAL-PF	120.	0.24	0.117 1.55	30.4	2.31	0.98	2.32	7.70	29.96	0.	43.27	0.900	9.	27	4
28121 TISTMT	RESIDUA	120.	0.31	0.154 1.55	72.8	5.52	2.35	2.31	14.41	27.00	0.	51.59	1.073	-37.	0	999
28121 TISTMT	COAL	120.	0.31	0.154 1.55	92.2	7.00	2.97	3.30	8.37	27.00	0.	48.63	1.011	-37.	4	14
28121 TIHRSG	RESIDUA	120.	0.14	0.053 1.55	61.9	4.59	1.95	1.89	12.51	33.80	0.	54.74	1.138	-41.	0	67
28121 TIHRSG	COAL	120.	0.14	0.053 1.55	79.5	6.03	2.56	2.80	7.27	33.80	0.	52.46	1.091	-43.	0	999
28121 STIRL	DISTILL	120.	0.36	0.128 1.55	30.3	2.24	0.95	1.21	21.35	25.31	0.	51.06	1.062	-14.	0	60
28121 STIRL	RESIDUA	120.	0.36	0.128 1.55	30.3	2.25	0.95	1.22	17.41	25.31	0.	47.13	0.980	-2.	11	8
28121 STIRL	COAL	120.	0.36	0.128 1.55	53.0	3.92	1.67	2.37	10.11	25.31	0.	43.38	0.902	-1.	14	7
28121 HEGT65	COAL-AF	120.	1.00	0.153 1.55	154.6	11.73	4.99	6.08	24.20	0.	0.	47.00	0.977	-62.	5	13
28121 HEGT85	COAL-AF	120.	1.30	0.160 1.55	178.6	13.55	5.76	6.74	29.83	0.	-7.13	48.76	1.014	-79.	4	14
28121 HEGT60	COAL-AF	120.	0.53	0.095 1.55	93.7	7.11	3.02	3.66	15.06	18.44	0.	47.29	0.983	-33.	6	12
28121 HEGT00	COAL-AF	120.	0.23	0.045 1.55	54.0	4.10	1.74	2.29	9.61	30.23	0.	47.97	0.997	-16.	5	13
28121 FCMCCL	COAL	120.	0.42	0.178 1.55	64.8	5.04	2.14	3.54	10.04	22.96	0.	43.72	0.909	-9.	11	8
28121 FCSTCL	COAL	120.	0.66	0.296 1.55	80.2	6.24	2.65	4.42	12.35	13.29	0.	38.95	0.810	-2.	14	7
28121 IGGTST	COAL	120.	0.46	0.167 1.55	62.6	4.87	2.07	2.33	11.52	21.01	0.	41.80	0.869	-2.	14	7
28121 GTSOAR	RESIDUA	120.	0.43	0.160 1.55	23.2	1.72	0.73	0.97	18.96	22.21	0.	44.59	0.927	9.	52	2
28121 GTAC08	RESIDUA	120.	0.34	0.145 1.55	18.2	1.35	0.57	0.82	15.96	25.90	0.	44.60	0.927	12.	999	0
28121 GTAC12	RESIDUA	120.	0.42	0.179 1.55	21.5	1.59	0.68	0.92	17.60	22.61	0.	43.40	0.902	14.	110	1
28121 GTAC16	RESIDUA	120.	0.48	0.200 1.55	24.5	1.81	0.77	1.00	18.80	20.43	0.	42.82	0.890	14.	57	2
28121 GTWC16	RESIDUA	120.	0.50	0.189 1.55	24.0	1.78	0.76	1.00	20.26	19.47	0.	43.27	0.900	13.	57	2
28121 CC1626	RESIDUA	120.	0.83	0.310 1.55	33.1	2.51	1.07	1.42	27.19	6.70	0.	38.88	0.808	22.	38	3
28121 CC1622	RESIDUA	120.	0.75	0.293 1.55	32.8	2.49	1.06	1.37	24.78	9.94	0.	39.63	0.824	20.	37	3
28121 CC1222	RESIDUA	120.	0.74	0.295 1.55	31.1	2.36	1.00	1.35	24.59	10.05	0.	39.34	0.818	22.	42	3
28121 CC0822	RESIDUA	120.	0.60	0.252 1.55	25.9	1.97	0.84	1.19	20.78	15.89	0.	40.67	0.845	20.	57	2

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	TAXES + INSNC	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28121 STIG15	RESIDUA	120.	1.00	0.139	1.55	45.9	3.40	1.45	2.97	42.36	0.	0.	50.19	1.043	-19.	0	999
28121 STIG15	RESIDUA	120.	18.97	0.171	1.55	565.4	41.88	17.81	34.93	630.35	0.	-423.29	301.68	6.272	-1053.	0	58
28121 STIG10	RESIDUA	120.	1.00	0.199	1.55	42.5	3.15	1.34	2.49	39.40	0.	0.	46.38	0.964	-6.	10	9
28121 STIG10	RESIDUA	120.	1.75	0.218	1.55	62.8	4.66	1.98	3.38	61.85	0.	-17.76	54.10	1.125	-39.	0	75
28121 STIG1S	RESIDUA	120.	1.00	0.227	1.55	39.5	2.93	1.24	2.33	38.04	0.	0.	44.55	0.926	2.	16	6
28121 STIG1S	RESIDUA	120.	1.03	0.228	1.55	39.7	2.94	1.25	2.26	38.87	0.	-0.69	44.64	0.928	1.	16	6
28121 DEADV3	RESIDUA	120.	1.00	0.287	1.55	81.0	6.00	2.55	2.76	35.06	0.	0.	46.38	0.964	-23.	7	11
28121 DEADV3	RESIDUA	120.	1.11	0.293	1.55	87.7	6.49	2.76	2.80	37.79	0.	-2.53	47.32	0.984	-29.	6	12
28121 DEHTPM	RESIDUA	120.	0.51	0.217	1.55	46.1	3.41	1.45	1.70	19.06	19.32	0.	44.94	0.934	-3.	13	7
28121 DESOA3	DISTILL	120.	1.00	0.245	1.55	101.0	7.48	3.18	3.31	45.56	0.	0.	59.54	1.238	-74.	0	71
28121 DESOA3	DISTILL	120.	1.28	0.256	1.55	124.9	9.25	3.93	3.77	54.94	0.	-6.55	65.34	1.358	-103.	0	67
28121 DESOA3	RESIDUA	120.	1.00	0.245	1.55	101.0	7.48	3.18	3.31	37.17	0.	0.	51.15	1.063	-48.	1	23
28121 DESOA3	RESIDUA	120.	1.28	0.256	1.55	124.9	9.25	3.93	3.77	44.82	0.	-6.55	55.22	1.148	-72.	0	999
28121 GTSOAD	DISTILL	120.	0.41	0.164	1.55	19.0	1.41	0.60	0.86	21.67	23.26	0.	47.78	0.993	1.	999	0
28121 GTRA08	DISTILL	120.	0.66	0.251	1.55	33.4	2.48	1.05	1.26	28.90	13.16	0.	46.85	0.974	-3.	11	8
28121 GTRA12	DISTILL	120.	0.65	0.252	1.55	31.9	2.36	1.00	1.22	28.23	13.70	0.	46.51	0.967	-1.	13	7
28121 GTRA16	DISTILL	120.	0.61	0.237	1.55	32.1	2.38	1.01	1.22	27.09	15.34	0.	47.04	0.978	-3.	11	8
28121 GTR208	DISTILL	120.	0.51	0.196	1.55	25.1	1.86	0.79	1.03	24.57	19.37	0.	47.62	0.990	-1.	11	8
28121 GTR212	DISTILL	120.	0.54	0.209	1.55	27.1	2.01	0.85	1.09	25.56	17.92	0.	47.43	0.986	-1.	11	8
28121 GTR216	DISTILL	120.	0.56	0.219	1.55	29.0	2.15	0.91	1.13	25.64	17.40	0.	47.24	0.982	-2.	11	8
28121 GTRW08	DISTILL	120.	0.79	0.252	1.55	33.5	2.48	1.05	1.29	35.15	8.05	0.	48.03	0.999	-6.	5	13
28121 GTRW12	DISTILL	120.	0.81	0.275	1.55	33.8	2.51	1.07	1.30	34.58	7.42	0.	46.87	0.974	-3.	11	8
28121 GTRW16	DISTILL	120.	0.75	0.259	1.55	33.5	2.48	1.06	1.28	32.78	9.66	0.	47.26	0.983	-4.	9	9
28121 GTR308	DISTILL	120.	0.61	0.180	1.55	27.5	2.03	0.87	1.12	30.40	15.42	0.	49.84	1.036	-9.	0	61
28121 GTR312	DISTILL	120.	0.66	0.230	1.55	28.5	2.11	0.90	1.14	29.97	13.33	0.	47.46	0.987	-2.	10	9
28121 GTR316	DISTILL	120.	0.65	0.225	1.55	29.5	2.18	0.93	1.17	29.78	13.73	0.	47.78	0.993	-4.	7	10
28121 FCPADS	DISTILL	120.	1.00	0.262	1.55	74.0	5.48	2.33	13.64	44.49	0.	0.	65.93	1.371	-83.	0	63
28121 FCPADS	DISTILL	120.	1.45	0.279	1.55	100.9	7.48	3.18	19.18	59.09	0.	-10.52	78.40	1.630	-135.	0	62
28121 FCMCDS	DISTILL	120.	1.00	0.351	1.55	78.0	5.77	2.45	12.79	39.16	0.	0.	60.19	1.251	-67.	0	71
28121 FCMCDS	DISTILL	120.	1.14	0.360	1.55	86.6	6.41	2.73	14.36	43.11	0.	-3.40	63.21	1.314	-81.	0	68
28191 ONOCGN	COAL-FG	30.	0.	0.	0.11	55.7	4.22	1.80	2.89	19.81	9.49	0.	38.21	1.000	0.	0	0
28191 STM141	RESIDUA	30.	1.00	0.136	0.11	34.8	2.64	1.12	1.73	37.72	0.	0.	43.22	1.131	-6.	-19	0
28191 STM141	RESIDUA	30.	1.14	0.151	0.11	33.8	2.56	1.09	1.48	38.23	0.	-0.79	42.56	1.114	-3.	-17	0
28191 STM141	COAL-FG	30.	1.00	0.136	0.11	70.8	5.38	2.29	3.93	21.90	0.	0.	33.50	0.877	7.	22	5
28191 STM141	COAL-FG	30.	1.14	0.151	0.11	66.0	5.01	2.13	3.46	22.20	0.	-0.79	32.00	0.837	14.	36	3
28191 STM141	COAL-AF	30.	1.00	0.136	0.11	51.8	3.93	1.67	3.65	21.90	0.	0.	31.15	0.815	24.	999	0
28191 STM141	COAL-AF	30.	1.14	0.151	0.11	50.7	3.85	1.64	3.31	22.20	0.	-0.79	30.20	0.790	27.	999	0
28191 STM088	RESIDUA	30.	0.66	0.090	0.11	30.1	2.29	0.97	1.38	36.49	3.24	0.	44.37	1.161	-7.	-19	0
28191 STM088	COAL-FG	30.	0.66	0.090	0.11	61.2	4.65	1.98	3.22	21.19	3.24	0.	34.27	0.897	10.	41	3
28191 STM088	COAL-AF	30.	0.66	0.090	0.11	48.5	3.68	1.57	3.19	21.19	3.24	0.	32.87	0.860	20.	999	0
28191 PFBSTM	COAL-PF	30.	1.00	0.131	0.11	65.4	4.96	2.11	4.73	22.04	0.	0.	33.84	0.886	9.	28	4
28191 PFBSTM	COAL-PF	30.	2.31	0.235	0.11	65.7	4.99	2.12	5.68	24.96	0.	-7.43	30.31	0.793	20.	44	3
28191 TISTMT	RESIDUA	30.	1.00	0.134	0.11	92.9	7.05	3.00	3.26	37.84	0.	0.	51.14	1.338	-58.	0	59
28191 TISTMT	RESIDUA	30.	3.25	0.291	0.11	178.6	13.56	5.76	5.21	46.21	0.	-12.82	57.92	1.516	-121.	0	67

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST ×10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28191	TISTMT	COAL	30.	1.00	0.134 0.11	132.5	10.06	4.28	5.50	21.97	0.	0.	41.81	1.094	-48.	0	28
28191	TISTMT	COAL	30.	3.25	0.291 0.11	225.3	17.10	7.27	7.59	26.83	0.	-12.82	45.97	1.203	-106.	0	27
28191	TIHRSG	RESIDUA	30.	1.00	0.070 0.11	111.4	8.25	3.51	3.61	40.65	0.	0.	56.03	1.466	-81.	0	59
28191	TIHRSG	RESIDUA	30.	2.24	0.123 0.11	180.1	13.34	5.67	5.06	48.75	0.	-7.07	65.75	1.721	-144.	0	62
28191	TIHRSG	COAL	30.	1.00	0.070 0.11	150.8	11.44	4.86	5.95	23.60	0.	0.	45.85	1.200	-70.	0	999
28191	TIHRSG	COAL	30.	2.24	0.123 0.11	228.7	17.35	7.38	7.62	28.31	0.	-7.07	53.59	1.402	-131.	0	336
28191	STIRL	DISTILL	30.	1.00	0.090 0.11	53.2	3.94	1.68	2.21	48.71	0.	0.	56.54	1.480	-56.	999	0
28191	STIRL	DISTILL	30.	4.03	0.219 0.11	97.8	7.24	3.08	3.16	69.55	0.	-17.24	65.79	1.722	-105.	0	57
28191	STIRL	RESIDUA	30.	1.00	0.090 0.11	53.2	3.94	1.68	2.21	39.74	0.	0.	47.57	1.245	-27.	119	0
28191	STIRL	RESIDUA	30.	4.03	0.219 0.11	97.9	7.25	3.08	3.16	56.74	0.	-17.24	53.00	1.387	-65.	0	59
28191	STIRL	COAL	30.	1.00	0.090 0.11	93.4	6.92	2.94	4.53	23.07	0.	0.	37.46	0.980	-15.	8	11
28191	STIRL	COAL	30.	4.03	0.219 0.11	174.8	12.95	5.51	6.61	32.95	0.	-17.24	40.77	1.067	-63.	3	18
28191	HEGT60	COAL-AF	30.	1.00	-0.006 0.11	103.9	7.89	3.35	4.79	25.53	0.	0.	41.56	1.088	-34.	0	999
28191	HEGT60	COAL-AF	30.	17.29	-0.024 0.11	508.6	38.59	16.41	20.38	118.60	0.	-92.74	101.24	2.650	-416.	0	74
28191	HEGT00	COAL-AF	30.	1.00	0.037 0.11	98.4	7.46	3.17	4.67	24.42	0.	0.	39.73	1.040	-25.	1	22
28191	HEGT00	COAL-AF	30.	3.61	0.086 0.11	143.1	10.86	4.62	6.28	36.45	0.	-14.87	43.35	1.135	-58.	0	999
28191	FCMCCL	COAL	30.	1.00	0.116 0.11	99.5	7.74	3.29	5.07	22.43	0.	0.	38.52	1.008	-23.	4	14
28191	FCMCCL	COAL	30.	6.13	0.335 0.11	169.3	13.17	5.60	10.12	35.83	0.	-29.21	35.50	0.929	-49.	7	11
28191	FCSTCL	COAL	30.	1.00	0.120 0.11	98.3	7.64	3.25	5.04	22.32	0.	0.	38.25	1.001	-22.	5	14
28191	FCSTCL	COAL	30.	7.94	0.378 0.11	190.4	14.80	6.29	11.42	39.72	0.	-39.51	32.72	0.856	-50.	8	10
28191	IGGTST	COAL	30.	1.00	0.091 0.11	94.1	7.31	3.11	4.34	23.05	0.	0.	37.81	0.990	-18.	6	12
28191	IGGTST	COAL	30.	5.29	0.249 0.11	151.4	11.77	5.00	4.89	36.97	0.	-24.44	34.19	0.895	-35.	8	10
28191	GTSOAR	RESIDUA	30.	1.00	0.085 0.11	42.8	3.17	1.35	1.86	39.95	0.	0.	46.33	1.213	-19.	-35	0
28191	GTSOAR	RESIDUA	30.	7.23	0.261 0.11	87.7	6.50	2.76	2.85	76.28	0.	-35.47	52.93	1.385	-60.	0	58
28191	GTAC08	RESIDUA	30.	1.00	0.117 0.11	40.8	3.02	1.28	1.81	38.58	0.	0.	44.69	1.170	-13.	-27	0
28191	GTAC08	RESIDUA	30.	4.96	0.311 0.11	58.9	4.36	1.86	2.06	56.25	0.	-22.56	41.97	1.098	-13.	0	55
28191	GTAC12	RESIDUA	30.	1.00	0.114 0.11	41.5	3.07	1.31	1.82	38.68	0.	0.	44.88	1.175	-14.	-29	0
28191	GTAC12	RESIDUA	30.	6.24	0.333 0.11	70.8	5.24	2.23	2.38	62.56	0.	-29.81	42.61	1.115	-20.	0	58
28191	GTAC16	RESIDUA	30.	1.00	0.109 0.11	42.3	3.14	1.33	1.84	38.91	0.	0.	45.22	1.183	-15.	-31	0
28191	GTAC16	RESIDUA	30.	7.29	0.335 0.11	82.5	6.11	2.60	2.70	69.03	0.	-35.79	44.64	1.168	-32.	0	60
28191	GTWC16	RESIDUA	30.	1.00	0.103 0.11	42.1	3.12	1.33	1.84	39.20	0.	0.	45.49	1.190	-16.	-31	0
28191	GTWC16	RESIDUA	30.	7.36	0.316 0.11	76.0	5.63	2.39	2.54	71.51	0.	-36.22	45.85	1.200	-33.	0	58
28191	CC1626	RESIDUA	30.	1.00	0.099 0.11	41.9	3.18	1.35	1.94	39.37	0.	0.	45.84	1.200	-17.	-34	0
28191	CC1626	RESIDUA	30.	10.14	0.334 0.11	91.8	6.96	2.96	3.18	87.27	0.	-51.99	48.38	1.266	-49.	0	60
28191	CC1622	RESIDUA	30.	1.00	0.104 0.11	42.0	3.19	1.35	1.93	39.15	0.	0.	45.62	1.194	-17.	-33	0
28191	CC1622	RESIDUA	30.	9.08	0.341 0.11	94.1	7.14	3.04	3.14	79.71	0.	-45.98	47.05	1.231	-46.	0	61
28191	CC1222	RESIDUA	30.	1.00	0.105 0.11	41.3	3.13	1.33	1.92	39.10	0.	0.	45.49	1.191	-16.	-32	0
28191	CC1222	RESIDUA	30.	9.00	0.343 0.11	88.2	6.69	2.84	3.06	78.93	0.	-45.54	45.98	1.203	-40.	0	61
28191	CC0822	RESIDUA	30.	1.00	0.113 0.11	41.1	3.12	1.32	1.92	38.76	0.	0.	45.13	1.181	-15.	-30	0
28191	CC0822	RESIDUA	30.	7.02	0.341 0.11	69.1	5.24	2.23	2.53	66.70	0.	-34.28	42.42	1.110	-20.	0	59
28191	DEHTPM	RESIDUA	30	1.00	0.091 0.11	59.3	4.39	1.87	2.41	39.72	0.	0.	48.40	1.267	-33.	0	56
28191	DEHTPM	RESIDUA	30.	5.90	0.258 0.11	166.7	12.35	5.25	5.05	67.16	0.	-27.91	61.89	1.620	-125.	0	62
28191	GTSOAD	DISTILL	30.	1.00	0.107 0.11	40.2	2.98	1.26	1.79	47.82	0.	0.	53.86	1.409	-41.	-52	0
28191	GTSOAD	DISTILL	30.	6.11	0.308 0.11	62.6	4.64	1.97	2.18	78.45	0.	-29.08	58.16	1.522	-65.	0	56

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST ×10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28191	GTRA08	DISTILL	30.	1.00	0.085 0.11	46.9	3.47	1.48	1.95	48.99	0.	0.	55.89	1.463	-51.	-88	0
28191	GTRA08	DISTILL	30.	12.51	0.303 0.11	137.3	10.17	4.32	4.18	131.41	0.	-65.52	84.56	2.213	-183.	0	57
28191	GTRA12	DISTILL	30.	1.00	0.090 0.11	43.8	3.25	1.38	1.88	48.71	0.	0.	55.21	1.445	-47.	-68	0
28191	GTRA12	DISTILL	30.	11.64	0.316 0.11	127.5	9.44	4.01	3.91	121.89	0.	-60.54	78.72	2.060	-160.	0	57
28191	GTRA16	DISTILL	30.	1.00	0.093 0.11	44.6	3.31	1.41	1.90	48.58	0.	0.	55.19	1.444	-47.	-71	0
28191	GTRA16	DISTILL	30.	10.48	0.316 0.11	125.1	9.26	3.94	3.83	112.58	0.	-53.94	75.66	1.980	-149.	0	57
28191	GTR208	DISTILL	30.	1.00	0.095 0.11	42.6	3.15	1.34	1.85	48.47	0.	0.	54.81	1.434	-45.	-61	0
28191	GTR208	DISTILL	30.	8.24	0.302 0.11	94.1	6.97	2.96	3.02	96.52	0.	-41.19	68.28	1.787	-111.	0	57
28191	GTR212	DISTILL	30.	1.00	0.095 0.11	43.1	3.19	1.36	1.86	48.47	0.	0.	54.88	1.436	-46.	-64	0
28191	GTR212	DISTILL	30.	8.85	0.309 0.11	101.6	7.53	3.20	3.22	100.57	0.	-44.68	69.83	1.828	-120.	0	57
28191	GTR216	DISTILL	30.	1.00	0.097 0.11	43.8	3.24	1.38	1.88	48.38	0.	0.	54.88	1.436	-46.	-66	0
28191	GTR216	DISTILL	30.	9.13	0.317 0.11	109.7	8.12	3.45	3.42	101.63	0.	-46.29	70.33	1.841	-125.	0	57
28191	GTRW08	DISTILL	30.	1.00	0.073 0.11	46.7	3.46	1.47	1.95	49.63	0.	0.	56.51	1.479	-52.	-89	0
28191	GTRW08	DISTILL	30.	14.52	0.268 0.11	132.9	9.85	4.19	4.12	155.09	0.	-76.94	96.30	2.520	-217.	0	57
28191	GTRW12	DISTILL	30.	1.00	0.082 0.11	46.7	3.46	1.47	1.95	49.17	0.	0.	56.05	1.467	-51.	-87	0
28191	GTRW12	DISTILL	30.	14.13	0.298 0.11	130.3	9.65	4.10	4.03	145.55	0.	-74.72	88.61	2.319	-192.	0	57
28191	GTRW16	DISTILL	30.	1.00	0.085 0.11	47.2	3.50	1.49	1.96	49.01	0.	0.	55.96	1.464	-51.	-91	0
28191	GTRW16	DISTILL	30.	12.58	0.302 0.11	125.7	9.31	3.96	3.89	132.11	0.	-65.90	83.37	2.182	-174.	0	57
28191	GTR308	DISTILL	30.	1.00	0.066 0.11	42.6	3.15	1.34	1.86	49.99	0.	0.	56.35	1.475	-50.	-66	0
28191	GTR308	DISTILL	30.	10.63	0.227 0.11	104.0	7.70	3.28	3.34	128.59	0.	-54.81	88.10	2.305	-178.	0	56
28191	GTR312	DISTILL	30.	1.00	0.090 0.11	42.5	3.15	1.34	1.85	48.74	0.	0.	55.07	1.441	-46.	-62	0
28191	GTR312	DISTILL	30.	10.31	0.305 0.11	96.3	7.13	3.03	3.11	113.02	0.	-52.98	73.32	1.919	-128.	0	57
28191	GTR316	DISTILL	30.	1.00	0.089 0.11	43.1	3.20	1.36	1.86	48.76	0.	0.	55.17	1.444	-47.	-65	0
28191	GTR316	DISTILL	30.	10.12	0.302 0.11	98.8	7.32	3.11	3.17	111.94	0.	-51.91	73.64	1.927	-130.	0	57
28191	FCPADS	DISTILL	30.	1.00	0.071 0.11	54.8	4.06	1.73	4.74	49.73	0.	0.	60.25	1.577	-68.	999	0
28191	FCPADS	DISTILL	30.	21.20	0.279 0.11	339.4	25.14	10.69	66.90	209.15	0.	-114.95	196.94	5.154	-638.	0	59
28191	FCMCDS	DISTILL	30.	1.00	0.095 0.11	55.8	4.13	1.76	4.55	48.44	0.	0.	58.88	1.541	-64.	999	0
28191	FCMCDS	DISTILL	30.	16.77	0.360 0.11	304.0	22.52	9.57	50.30	152.60	0.	-89.74	145.25	3.801	-457.	0	60
28192	ONOCGH	COAL-FG	61.	0.	0. 0.11	110.4	8.38	3.56	5.16	39.65	18.97	0.	75.72	1.000	0.	0	0
28192	STM141	RESIDUA	61.	1.00	0.136 0.11	60.9	4.62	1.96	2.59	75.48	0.	0.	84.66	1.118	-4.	-16	0
28192	STM141	RESIDUA	61.	1.14	0.151 0.11	60.0	4.55	1.93	2.28	76.49	0.	-1.60	83.66	1.105	-0.	-15	0
28192	STM141	COAL-FG	61.	1.00	0.136 0.11	125.7	9.54	4.05	6.46	43.83	0.	0.	63.86	0.844	30.	44	3
28192	STM141	COAL-FG	61.	1.14	0.151 0.11	128.5	9.75	4.15	6.10	44.41	0.	-1.60	62.82	0.830	32.	41	3
28192	STM141	COAL-AF	61.	1.00	0.136 0.11	96.0	7.28	3.10	6.21	43.83	0.	0.	60.42	0.798	55.	999	0
28192	STM141	COAL-AF	61.	1.14	0.151 0.11	92.2	7.00	2.98	5.78	44.41	0.	-1.60	58.58	0.774	62.	999	0
28192	STM088	RESIDUA	61.	0.66	0.090 0.11	54.0	4.10	1.74	2.12	73.03	6.48	0.	87.47	1.155	-10.	-17	0
28192	STM088	COAL-FG	61.	0.66	0.090 0.11	120.1	9.11	3.88	5.66	42.40	6.48	0.	67.53	0.892	21.	47	3
28192	STM088	COAL-AF	61.	0.66	0.090 0.11	89.0	6.75	2.87	5.58	42.40	6.48	0.	64.08	0.846	47.	999	0
28192	PFBSTM	COAL-PF	61.	1.00	0.131 0.11	115.6	8.78	3.73	8.09	44.11	0.	0.	64.71	0.855	32.	99	1
28192	PFBSTM	COAL-PF	61.	2.31	0.235 0.11	117.2	8.89	3.78	10.37	49.94	0.	-14.87	58.11	0.767	51.	119	1
28192	TISTMT	RESIDUA	61.	1.00	0.134 0.11	159.1	12.07	5.13	5.15	75.72	0.	0.	98.07	1.295	-93.	0	58
28192	TISTMT	RESIDUA	61.	3.25	0.291 0.11	354.3	26.89	11.43	9.84	92.47	0.	-25.67	114.96	1.518	-240.	0	67
28192	TISTMT	COAL	61.	1.00	0.134 0.11	227.1	17.23	7.33	8.99	43.96	0.	0.	77.52	1.024	-62.	4	16
28192	TISTMT	COAL	61.	3.25	0.291 0.11	447.9	33.99	14.45	14.34	53.69	0.	-25.67	90.80	1.199	-209.	0	27

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST x10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28192 TIHRSG	RESIDUA	61.	1.00	0.069 0.11	193.4	14.32	6.09	5.88	81.33	0.	0.	107.63	1.421	-137.	0	58
28192 TIHRSG	RESIDUA	61.	2.24	0.123 0.11	359.6	26.63	11.32	9.71	97.55	0.	-14.15	131.06	1.731	-288.	0	62
28192 TIHRSG	COAL	61.	1.00	0.069 0.11	262.8	19.94	8.48	9.94	47.22	0.	0.	85.58	1.130	-104.	0	999
28192 TIHRSG	COAL	61.	2.24	0.123 0.11	457.0	34.68	14.74	14.58	56.64	0.	-14.15	106.49	1.406	-263.	0	342
28192 STIRL	DISTILL	61.	1.00	0.090 0.11	100.1	7.41	3.15	3.62	97.46	0.	0.	111.65	1.474	-106.	132	0
28192 STIRL	DISTILL	61.	4.03	0.219 0.11	191.9	14.21	6.04	5.71	139.18	0.	-34.51	130.63	1.725	-209.	0	57
28192 STIRL	RESIDUA	61.	1.00	0.090 0.11	100.1	7.42	3.15	3.62	79.51	0.	0.	93.70	1.237	-50.	-72	0
28192 STIRL	RESIDUA	61.	4.03	0.219 0.11	192.1	14.23	6.05	5.72	113.54	0.	-34.51	105.02	1.387	-129.	0	58
28192 STIRL	COAL	61.	1.00	0.090 0.11	176.1	13.04	5.54	7.78	46.17	0.	0.	72.53	0.958	-20.	9	10
28192 STIRL	COAL	61.	4.03	0.219 0.11	344.6	25.52	10.85	12.33	65.93	0.	-34.51	80.12	1.058	-122.	3	17
28192 HEGT60	COAL-AF	61.	1.00	-0.006 0.11	187.0	14.19	6.03	8.21	51.07	0.	0.	79.51	1.050	-49.	0	30
28192 HEGT60	COAL-AF	61.	17.30	-0.024 0.11	1017.5	77.21	32.83	40.06	237.33	0.	-185.58	201.85	2.666	-832.	0	74
28192 HEGT00	COAL-AF	61.	1.00	0.037 0.11	167.6	12.72	5.41	7.77	48.86	0.	0.	74.76	0.987	-25.	6	12
28192 HEGT00	COAL-AF	61.	3.61	0.086 0.11	234.2	17.78	7.56	10.80	72.94	0.	-29.76	79.32	1.048	-71.	2	20
28192 FCMCCL	COAL	61.	1.00	0.116 0.11	172.6	13.42	5.70	8.62	44.87	0.	0.	72.61	0.959	-22.	8	10
28192 FCMCCL	COAL	61.	6.14	0.335 0.11	283.0	22.00	9.35	18.31	71.70	0.	-58.46	62.90	0.831	-47.	10	9
28192 FCSTCL	COAL	61.	1.00	0.120 0.11	170.7	13.27	5.64	8.49	44.66	0.	0.	72.07	0.952	-20.	9	9
28192 FCSTCL	COAL	61.	7.95	0.378 0.11	318.2	24.74	10.52	20.58	79.48	0.	-79.06	56.26	0.743	-44.	11	8
28192 IGGTST	COAL	61.	1.00	0.091 0.11	160.6	12.49	5.31	6.91	46.13	0.	0.	70.84	0.935	-11.	11	8
28192 IGGTST	COAL	61.	5.30	0.249 0.11	279.1	21.70	9.23	8.34	73.97	0.	-48.91	64.32	0.849	-48.	9	9
28192 GTSOAR	RESIDUA	61.	1.00	0.085 0.11	79.2	5.87	2.49	2.98	79.94	0.	0.	91.29	1.206	-33.	-30	0
28192 GTSOAR	RESIDUA	61.	7.24	0.261 0.11	157.5	11.67	4.96	4.78	152.64	0.	-70.98	103.07	1.361	-106.	0	57
28192 GTAC08	RESIDUA	61.	1.00	0.117 0.11	75.6	5.60	2.38	2.89	77.20	0.	0.	88.07	1.163	-21.	-24	0
28192 GTAC08	RESIDUA	61.	4.97	0.311 0.11	109.6	8.12	3.45	3.50	112.55	0.	-45.16	82.46	1.089	-19.	-93	0
28192 GTAC12	RESIDUA	61.	1.00	0.114 0.11	77.4	5.73	2.44	2.93	77.40	0.	0.	88.50	1.169	-23.	-25	0
28192 GTAC12	RESIDUA	61.	6.24	0.333 0.11	132.6	9.82	4.18	4.10	125.18	0.	-59.66	83.63	1.104	-34.	0	57
28192 GTAC16	RESIDUA	61.	1.00	0.109 0.11	79.1	5.86	2.49	2.97	77.86	0.	0.	89.18	1.178	-26.	-27	0
28192 GTAC16	RESIDUA	61.	7.29	0.335 0.11	159.4	11.81	5.02	4.80	138.12	0.	-71.63	88.13	1.164	-60.	0	60
28192 GTWC16	RESIDUA	61.	1.00	0.103 0.11	77.8	5.76	2.45	2.94	78.44	0.	0.	89.58	1.183	-27.	-27	0
28192 GTWC16	RESIDUA	61.	7.37	0.316 0.11	140.0	10.37	4.41	4.33	143.09	0.	-72.48	89.72	1.185	-56.	0	57
28192 CC1626	RESIDUA	61.	1.00	0.099 0.11	77.6	5.89	2.50	3.05	78.77	0.	0.	90.21	1.191	-29.	-29	0
28192 CC1626	RESIDUA	61.	10.14	0.334 0.11	166.5	12.64	5.37	5.31	174.64	0.	-104.05	93.91	1.240	-84.	0	59
28192 CC1622	RESIDUA	61.	1.00	0.104 0.11	78.5	5.96	2.53	3.06	78.33	0.	0.	89.87	1.187	-29.	-29	0
28192 CC1622	RESIDUA	61.	9.08	0.341 0.11	170.1	12.91	5.49	5.23	159.50	0.	-92.01	91.12	1.203	-77.	0	60
28192 CC1222	RESIDUA	61.	1.00	0.105 0.11	77.3	5.86	2.49	3.04	78.24	0.	0.	89.64	1.184	-28.	-28	0
28192 CC1222	RESIDUA	61.	9.01	0.343 0.11	157.8	11.98	5.09	5.05	157.93	0.	-91.14	88.91	1.174	-64.	0	60
28192 CC0822	RESIDUA	61.	1.00	0.113 0.11	76.2	5.78	2.46	3.02	77.56	0.	0.	88.83	1.173	-24.	-26	0
28192 CC0822	RESIDUA	61.	7.03	0.341 0.11	129.4	9.82	4.18	4.27	133.47	0.	-68.61	83.12	1.098	-32.	0	58
28192 DEHTPM	RESIDUA	61.	1.00	0.091 0.11	115.4	8.55	3.63	4.06	79.47	0.	0.	95.72	1.264	-64.	0	55
28192 DEHTPM	RESIDUA	61.	5.91	0.258 0.11	328.7	24.35	10.35	9.35	134.38	0.	-55.86	122.57	1.619	-247.	0	62
28192 GTSOAD	DISTILL	61.	1.00	0.107 0.11	74.9	5.55	2.36	2.87	95.69	0.	0.	106.47	1.406	-78.	-46	0
28192 GTSOAD	DISTILL	61.	6.11	0.308 0.11	119.8	8.88	3.77	3.79	156.98	0.	-58.19	115.23	1.522	-127.	0	56
28192 GTRA08	DISTILL	61.	1.00	0.085 0.11	84.3	6.25	2.66	3.09	98.02	0.	0.	110.02	1.453	-94.	-64	0
28192 GTRA08	DISTILL	61.	12.52	0.303 0.11	249.4	18.47	7.85	7.19	262.95	0.	-131.11	165.37	2.184	-344.	0	57

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28192 GTRA12	DISTILL	61.	1.00	0.090 0.11	81.5	6.04	2.57	3.02	97.46	0.	0.	109.09	1.441	-90.	-57	0
28192 GTRA12	DISTILL	61.	11.64	0.316 0.11	234.0	17.33	7.37	6.78	243.91	0.	-121.16	154.24	2.037	-302.	0	57
28192 GTRA16	DISTILL	61.	1.00	0.093 0.11	82.8	6.13	2.61	3.06	97.21	0.	0.	109.00	1.440	-90.	-59	0
28192 GTRA16	DISTILL	61.	10.48	0.316 0.11	224.0	16.59	7.05	6.51	225.27	0.	-107.95	147.47	1.947	-276.	0	57
28192 GTR208	DISTILL	61.	1.00	0.095 0.11	79.1	5.86	2.49	2.97	96.98	0.	0.	108.30	1.430	-86.	-53	0
28192 GTR208	DISTILL	61.	8.24	0.302 0.11	169.7	12.57	5.34	5.10	193.14	0.	-82.43	133.73	1.766	-208.	0	56
28192 GTR212	DISTILL	61.	1.00	0.095 0.11	80.0	5.93	2.52	2.99	96.98	0.	0.	108.42	1.432	-87.	-54	0
28192 GTR212	DISTILL	61.	8.85	0.309 0.11	180.7	13.38	5.69	5.39	201.23	0.	-89.41	136.28	1.800	-221.	0	57
28192 GTR216	DISTILL	61.	1.00	0.097 0.11	81.4	6.03	2.56	3.02	96.80	0.	0.	108.41	1.432	-87.	-56	0
28192 GTR216	DISTILL	61.	9.14	0.317 0.11	196.2	14.53	6.18	5.78	203.36	0.	-92.64	137.21	1.812	-231.	0	57
28192 GTRW08	DISTILL	61.	1.00	0.073 0.11	83.5	6.19	2.63	3.08	99.31	0.	0.	111.20	1.469	-97.	-64	0
28192 GTRW08	DISTILL	61.	14.53	0.268 0.11	241.9	17.92	7.62	7.06	310.34	0.	-153.96	188.98	2.496	-415.	0	57
28192 GTRW12	DISTILL	61.	1.00	0.082 0.11	83.5	6.18	2.63	3.07	98.39	0.	0.	110.27	1.456	-94.	-62	0
28192 GTRW12	DISTILL	61.	14.14	0.298 0.11	229.0	16.96	7.21	6.72	291.24	0.	-149.53	172.60	2.279	-358.	0	57
28192 GTRW16	DISTILL	61.	1.00	0.085 0.11	84.3	6.24	2.65	3.09	98.06	0.	0.	110.05	1.453	-94.	-64	0
28192 GTRW16	DISTILL	61.	12.58	0.302 0.11	220.7	16.34	6.95	6.48	264.36	0.	-131.87	162.26	2.143	-321.	0	57
28192 GTR308	DISTILL	61.	1.00	0.066 0.11	78.9	5.84	2.48	2.98	100.03	0.	0.	111.33	1.470	-95.	-57	0
28192 GTR308	DISTILL	61.	10.64	0.227 0.11	180.5	13.37	5.68	5.46	257.31	0.	-109.69	172.13	2.273	-333.	0	56
28192 GTR312	DISTILL	61.	1.00	0.090 0.11	78.6	5.82	2.47	2.95	97.52	0.	0.	108.77	1.436	-87.	-53	0
28192 GTR312	DISTILL	61.	10.31	0.305 0.11	173.0	12.82	5.45	5.23	226.15	0.	-106.01	143.63	1.897	-241.	0	56
28192 GTR316	DISTILL	61.	1.00	0.089 0.11	79.6	5.89	2.51	2.98	97.56	0.	0.	108.94	1.439	-88.	-54	0
28192 GTR316	DISTILL	61.	10.12	0.302 0.11	178.2	13.20	5.61	5.36	223.99	0.	-103.87	144.29	1.906	-245.	0	56
28192 FCPADS	DISTILL	61.	1.00	0.071 0.11	103.0	7.63	3.24	8.84	99.49	0.	0.	119.21	1.574	-132.	202	0
28192 FCPADS	DISTILL	61.	21.21	0.279 0.11	659.3	48.83	20.76	133.06	418.52	0.	-230.02	391.16	5.166	-1261.	0	59
28192 FCMCDS	DISTILL	61.	1.00	0.095 0.11	105.2	7.79	3.31	8.47	96.92	0.	0.	116.49	1.538	-125.	999	0
28192 FCMCDS	DISTILL	61.	16.78	0.360 0.11	578.8	42.87	18.23	99.62	305.36	0.	-179.58	286.50	3.784	-891.	0	60
28212 ONOCGN	COAL-FG	4.	0.	0. 0.07	16.1	1.22	0.52	1.04	4.27	1.28	0.	8.33	1.000	0.	0	0
28212 STM141	RESIDUA	4.	1.00	0.093 0.07	9.7	0.74	0.31	0.80	7.84	0.	0.	9.69	1.164	-1.	-18	0
28212 STM141	RESIDUA	4.	2.65	0.198 0.07	9.8	0.75	0.32	0.65	8.64	0.	-1.27	9.09	1.092	1.	-13	0
28212 STM141	COAL-FG	4.	1.00	0.093 0.07	21.7	1.65	0.70	1.58	4.55	0.	0.	8.47	1.018	-3.	2	19
28212 STM141	COAL-FG	4.	2.65	0.198 0.07	20.1	1.52	0.65	1.30	5.02	0.	-1.27	7.22	0.868	2.	21	5
28212 STM141	COAL-AF	4.	1.00	0.093 0.07	19.7	1.49	0.63	1.48	4.55	0.	0.	8.16	0.980	-1.	8	10
28212 STM141	COAL-AF	4.	2.65	0.198 0.07	14.9	1.13	0.48	1.16	5.02	0.	-1.27	6.52	0.783	6.	999	0
28212 STM086	RESIDUA	4.	1.00	0.093 0.07	9.4	0.72	0.30	0.80	7.84	0.	0.	9.66	1.160	-1.	-17	0
28212 STM088	RESIDUA	4.	1.83	0.151 0.07	8.7	0.66	0.28	0.62	8.24	0.	-0.63	9.17	1.101	1.	-12	0
28212 STM088	COAL-FG	4.	1.00	0.093 0.07	21.4	1.62	0.69	1.57	4.55	0.	0.	8.43	1.012	-3.	3	17
28212 STM028	COAL-FG	4.	1.83	0.151 0.07	18.5	1.40	0.60	1.23	4.78	0.	-0.63	7.38	0.886	2.	26	4
28212 STM088	COAL-AF	4.	1.00	0.093 0.07	18.9	1.43	0.61	1.48	4.55	0.	0.	8.07	0.969	-1.	11	8
28212 STM088	COAL-AF	4.	1.83	0.151 0.07	14.0	1.06	0.45	1.12	4.78	0.	-0.63	6.78	0.815	6.	999	0
28212 PFBSTM	COAL-PF	4.	1.00	0.090 0.07	21.9	1.66	0.71	1.60	4.56	0.	0.	8.53	1.025	-3.	2	22
28212 PFBSTM	COAL-PF	4.	4.57	0.270 0.07	24.6	1.87	0.79	1.86	5.61	0.	-2.74	7.40	0.889	-1.	12	8
28212 TISTMT	RESIDUA	4.	1.00	0.091 0.07	19.7	1.50	0.64	1.03	7.85	0.	0.	11.01	1.323	-10.	0	57
28212 TISTMT	RESIDUA	4.	6.21	0.319 0.07	57.8	4.39	1.87	1.89	10.45	0.	-4.00	14.60	1.754	-40.	0	69
28212 TISTMT	COAL	4.	1.00	0.091 0.07	32.1	2.44	1.04	1.79	4.56	0.	0.	9.83	1.181	-12.	0	262

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28212 TISTMT	COAL	4.	6.21	0.319 0.07	73.5	5.58	2.37	2.69	6.07	0.	-4.00	12.71	1.527	-41.	0	999
28212 TIHRSG	RESIDUA	4.	1.00	0.060 0.07	25.6	1.90	0.81	1.11	8.13	0.	0.	11.94	1.434	-16.	0	58
28212 TIHRSG	RESIDUA	4.	3.41	0.149 0.07	53.3	3.95	1.68	1.65	9.99	0.	-1.85	15.41	1.851	-39.	0	63
28212 TIHRSG	COAL	4.	1.00	0.060 0.07	39.2	2.98	1.26	1.92	4.72	0.	0.	10.87	1.306	-19.	0	97
28212 TIHRSG	COAL	4.	3.41	0.149 0.07	68.4	5.19	2.21	2.43	5.80	0.	-1.85	13.78	1.655	-42.	0	104
28212 STIRL	DISTILL	4.	1.00	0.064 0.07	10.4	0.77	0.33	0.75	9.91	0.	0.	11.76	1.413	-8.	-35	0
28212 STIRL	DISTILL	4.	7.35	0.243 0.07	22.8	1.69	0.72	0.98	15.60	0.	-4.87	14.13	1.697	-21.	0	56
28212 STIRL	RESIDUA	4.	1.00	0.064 0.07	10.4	0.77	0.33	0.75	8.08	0.	0.	9.93	1.193	-2.	-21	0
28212 STIRL	RESIDUA	4.	7.35	0.243 0.07	22.9	1.69	0.72	0.98	12.73	0.	-4.87	11.26	1.352	-12.	0	58
28212 STIRL	COAL	4.	1.00	0.064 0.07	21.6	1.60	0.68	1.47	4.69	0.	0.	8.44	1.014	-3.	3	18
28212 STIRL	COAL	4.	7.35	0.243 0.07	40.5	3.00	1.27	1.90	7.39	0.	-4.87	8.69	1.044	-12.	4	16
28212 HEGT60	COAL-AF	4.	1.00	0.015 0.07	27.3	2.07	0.88	1.53	4.94	0.	0.	9.42	1.132	-9.	0	156
28212 HEGT60	COAL-AF	4.	16.90	0.077 0.07	97.8	7.42	3.15	3.81	15.61	0.	-12.19	17.80	2.138	-69.	0	88
28212 HEGT00	COAL-AF	4.	1.00	0.030 0.07	26.5	2.01	0.86	1.52	4.87	0.	0.	9.26	1.113	-8.	0	***
28212 HEGT00	COAL-AF	4.	5.61	0.099 0.07	46.6	3.54	1.50	1.97	7.62	0.	-3.53	11.10	1.333	-23.	0	249
28212 FCMCCL	COAL	4.	1.00	0.079 0.07	27.1	2.10	0.89	1.60	4.62	0.	0.	9.21	1.107	-8.	0	999
28212 FCMCCL	COAL	4.	9.77	0.336 0.07	54.4	4.23	1.80	2.90	7.69	0.	-6.72	9.90	1.189	-24.	1	24
28212 FCSTCL	COAL	4.	1.00	0.082 0.07	26.5	2.06	0.88	1.63	4.60	0.	0.	9.17	1.102	-8.	0	999
28212 FCSTCL	COAL	4.	14.02	0.392 0.07	64.1	4.98	2.12	3.48	8.97	0.	-9.99	9.56	1.148	-28.	3	18
28212 IGGTST	COAL	4.	1.00	0.064 0.07	26.3	2.05	0.87	1.62	4.69	0.	0.	9.23	1.109	-8.	0	999
28212 IGGTST	COAL	4.	9.62	0.271 0.07	50.6	3.94	1.67	1.97	8.35	0.	-6.61	9.32	1.120	-20.	2	19
28212 GTSOAR	RESIDUA	4.	1.00	0.063 0.07	10.0	0.74	0.32	0.70	8.10	0.	0.	9.85	1.184	-2.	-19	0
28212 GTSOAR	RESIDUA	4.	10.83	0.278 0.07	20.1	1.49	0.63	0.87	15.39	0.	-7.53	10.84	1.302	-10.	0	57
28212 GTAC08	RESIDUA	4.	1.00	0.080 0.07	9.6	0.71	0.30	0.69	7.95	0.	0.	9.65	1.159	-1.	-17	0
28212 GTAC08	RESIDUA	4.	7.94	0.311 0.07	15.1	1.12	0.48	0.72	12.12	0.	-5.32	9.11	1.094	-2.	-34	0
28212 GTAC12	RESIDUA	4.	1.00	0.078 0.07	9.5	0.71	0.30	0.68	7.97	0.	0.	9.66	1.160	-1.	-17	0
28212 GTAC12	RESIDUA	4.	10.00	0.332 0.07	17.8	1.32	0.56	0.80	13.50	0.	-6.90	9.29	1.116	-4.	0	56
28212 GTAC16	RESIDUA	4.	1.00	0.075 0.07	9.6	0.71	0.30	0.68	7.99	0.	0.	9.69	1.164	-1.	-17	0
28212 GTAC16	RESIDUA	4.	11.49	0.338 0.07	20.5	1.52	0.65	0.87	14.66	0.	-8.04	9.66	1.160	-6.	0	58
28212 GTWC16	RESIDUA	4.	1.00	0.070 0.07	9.9	0.73	0.31	0.69	8.04	0.	0.	9.78	1.174	-1.	-18	0
28212 GTWC16	RESIDUA	4.	11.79	0.316 0.07	20.1	1.49	0.63	0.87	15.43	0.	-8.28	10.14	1.218	-7.	0	57
28212 CC1626	RESIDUA	4.	1.00	0.068 0.07	9.8	0.74	0.32	0.76	8.05	0.	0.	9.87	1.185	-2.	-19	0
28212 CC1626	RESIDUA	4.	17.74	0.347 0.07	26.1	1.98	0.84	1.19	19.72	0.	-12.84	10.90	1.309	-13.	0	61
28212 CC1622	RESIDUA	4.	1.00	0.072 0.07	9.6	0.73	0.31	0.75	8.02	0.	0.	9.81	1.178	-1.	-18	0
28212 CC1622	RESIDUA	4.	15.94	0.354 0.07	25.5	1.94	0.82	1.14	18.00	0.	-11.45	10.44	1.254	-11.	0	62
28212 CC1222	RESIDUA	4.	1.00	0.072 0.07	9.4	0.71	0.30	0.75	8.02	0.	0.	9.78	1.175	-1.	-18	0
28212 CC1222	RESIDUA	4.	15.84	0.357 0.07	24.2	1.83	0.78	1.12	17.84	0.	-11.38	10.19	1.224	-10.	0	61
28212 CC0822	RESIDUA	4.	1.00	0.078 0.07	9.6	0.73	0.31	0.76	7.97	0.	0.	9.76	1.173	-1.	-18	0
28212 CC0822	RESIDUA	4.	12.52	0.358 0.07	20.3	1.54	0.66	1.00	15.07	0.	-8.83	9.43	1.133	-5.	0	60
28212 STIG15	RESIDUA	4.	1.00	0.026 0.07	9.7	0.72	0.31	0.72	8.42	0.	0.	10.16	1.221	-3.	-21	0
28212 STIG15	RESIDUA	4.	444.51	0.171 0.07	442.5	32.77	13.93	27.14	480.80	0.	-340.07	214.58	25.774	-848.	0	58
28212 STIG10	RESIDUA	4.	1.00	0.037 0.07	9.5	0.70	0.30	0.70	8.32	0.	0.	10.03	1.205	-2.	-19	0
28212 STIG10	RESIDUA	4.	41.11	0.218 0.07	48.8	3.62	1.54	2.69	47.17	0.	-30.75	24.27	2.915	-65.	0	58
28212 STIG1S	RESIDUA	4.	1.00	0.042 0.07	9.4	0.70	0.30	0.70	8.28	0.	0.	9.98	1.199	-2.	-19	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28212	STIG1S	RESIDUA	4.	24.12	0.228 0.07	29.7	2.20	0.93	1.79	29.65	0.	-17.73	16.84	2.023	-33.	0	57
28212	DEADV3	RESIDUA	4.	1.00	0.048 0.07	12.3	0.91	0.39	0.78	8.23	0.	0.	10.30	1.237	-4.	-30	0
28212	DEADV3	RESIDUA	4.	31.04	0.271 0.07	82.1	6.08	2.58	2.64	34.48	0.	-23.03	22.75	2.733	-76.	0	62
28212	DEHTPM	RESIDUA	4.	1.00	0.071 0.07	12.7	0.94	0.40	0.82	8.03	0.	0.	10.19	1.224	-4.	-31	0
28212	DEHTPM	RESIDUA	4.	10.77	0.312 0.07	36.7	2.72	1.16	1.42	14.61	0.	-7.49	12.42	1.491	-22.	0	63
28212	DES0A3	DISTILL	4.	1.00	0.040 0.07	11.3	0.84	0.36	0.75	10.17	0.	0.	12.12	1.456	-9.	-43	0
28212	DES0A3	DISTILL	4.	37.17	0.232 0.07	121.1	8.97	3.81	3.66	52.02	0.	-27.74	40.73	4.893	-151.	0	59
28212	DES0A3	RESIDUA	4.	1.00	0.040 0.07	11.3	0.84	0.36	0.75	8.30	0.	0.	10.25	1.231	-4.	-26	0
28212	DES0A3	RESIDUA	4.	37.17	0.232 0.07	121.1	8.97	3.81	3.66	42.43	0.	-27.74	31.15	3.742	-120.	0	62
28212	GTS0AD	DISTILL	4.	1.00	0.073 0.07	9.4	0.69	0.29	0.68	9.82	0.	0.	11.48	1.379	-7.	-29	0
28212	GTS0AD	DISTILL	4.	9.71	0.310 0.07	15.9	1.18	0.50	0.75	16.80	0.	-6.68	12.55	1.508	-13.	999	0
28212	GTRA08	DISTILL	4.	1.00	0.064 0.07	10.2	0.75	0.32	0.69	9.91	0.	0.	11.68	1.403	-8.	-33	0
28212	GTRA08	DISTILL	4.	17.44	0.325 0.07	30.0	2.22	0.95	1.16	24.68	0.	-12.61	16.40	1.970	-32.	0	57
28212	GTRA12	DISTILL	4.	1.00	0.067 0.07	10.1	0.75	0.32	0.69	9.89	0.	0.	11.64	1.399	-7.	-33	0
28212	GTRA12	DISTILL	4.	16.73	0.334 0.07	28.1	2.08	0.88	1.10	23.60	0.	-12.06	15.61	1.875	-28.	0	57
28212	GTRA16	DISTILL	4.	1.00	0.068 0.07	10.3	0.76	0.32	0.70	9.88	0.	0.	11.66	1.401	-8.	-34	0
28212	GTRA16	DISTILL	4.	15.40	0.331 0.07	28.0	2.07	0.88	1.09	22.29	0.	-11.04	15.30	1.837	-27.	0	57
28212	GTR208	DISTILL	4.	1.00	0.068 0.07	9.9	0.73	0.31	0.69	9.87	0.	0.	11.61	1.394	-7.	-32	0
28212	GTR208	DISTILL	4.	12.51	0.313 0.07	21.6	1.60	0.68	0.91	19.75	0.	-8.82	14.11	1.695	-20.	0	56
28212	GTR212	DISTILL	4.	1.00	0.068 0.07	10.0	0.74	0.32	0.69	9.87	0.	0.	11.62	1.396	-7.	-32	0
28212	GTR212	DISTILL	4.	13.42	0.320 0.07	23.3	1.73	0.73	0.96	20.54	0.	-9.52	14.44	1.735	-22.	0	57
28212	GTR216	DISTILL	4.	1.00	0.069 0.07	10.1	0.75	0.32	0.69	9.86	0.	0.	11.62	1.396	-7.	-33	0
28212	GTR216	DISTILL	4.	13.79	0.328 0.07	24.9	1.85	0.78	1.00	20.67	0.	-9.81	14.50	1.741	-23.	0	57
28212	GTRW08	DISTILL	4.	1.00	0.054 0.07	10.2	0.76	0.32	0.70	10.02	0.	0.	11.79	1.417	-8.	-35	0
28212	GTRW08	DISTILL	4.	20.60	0.286 0.07	29.9	2.22	0.94	1.18	29.65	0.	-15.03	18.96	2.276	-40.	0	57
28212	GTRW12	DISTILL	4.	1.00	0.059 0.07	10.2	0.76	0.32	0.70	9.96	0.	0.	11.74	1.410	-8.	-34	0
28212	GTRW12	DISTILL	4.	20.61	0.312 0.07	29.8	2.21	0.94	1.17	28.60	0.	-15.04	17.89	2.149	-36.	0	57
28212	GTRW16	DISTILL	4.	1.00	0.061 0.07	10.4	0.77	0.33	0.70	9.95	0.	0.	11.75	1.411	-8.	-35	0
28212	GTRW16	DISTILL	4.	18.91	0.312 0.07	29.3	2.17	0.92	1.15	26.62	0.	-13.66	17.20	2.066	-34.	0	57
28212	GTR308	DISTILL	4.	1.00	0.050 0.07	9.9	0.74	0.31	0.69	10.07	0.	0.	11.81	1.419	-8.	-34	0
28212	GTR308	DISTILL	4.	15.59	0.244 0.07	24.3	1.80	0.77	1.02	25.41	0.	-11.19	17.81	2.139	-33.	0	56
28212	GTR312	DISTILL	4.	1.00	0.063 0.07	10.0	0.74	0.32	0.69	9.93	0.	0.	11.68	1.403	-7.	-33	0
28212	GTR312	DISTILL	4.	16.01	0.310 0.07	24.4	1.81	0.77	1.01	23.64	0.	-11.51	15.72	1.888	-27.	0	56
28212	GTR316	DISTILL	4.	1.00	0.062 0.07	10.2	0.76	0.32	0.70	9.93	0.	0.	11.71	1.406	-8.	-34	0
28212	GTR316	DISTILL	4.	15.74	0.307 0.07	25.2	1.86	0.79	1.03	23.46	0.	-11.30	15.84	1.902	-28.	0	57
28212	FCPADS	DISTILL	4.	1.00	0.049 0.07	10.5	0.78	0.33	1.00	10.08	0.	0.	12.19	1.464	-9.	-39	0
28212	FCPADS	DISTILL	4.	33.90	0.279 0.07	79.4	5.88	2.50	14.73	45.07	0.	-25.23	42.95	5.160	-140.	0	59
28212	FCMCDS	DISTILL	4.	1.00	0.065 0.07	10.7	0.79	0.34	0.97	9.90	0.	0.	12.01	1.442	-9.	-38	0
28212	FCMCDS	DISTILL	4.	26.82	0.360 0.07	68.2	5.05	2.15	11.05	32.88	0.	-19.80	31.33	3.763	-98.	0	60
28213	ONOCGN	RESIDUA	55.	0.	0. 11.73	1.2	0.09	0.04	0.16	0.54	16.72	0.	17.56	1.000	0.	0	0
28213	STM141	RESIDUA	55.	0.01	0.006 11.73	1.9	0.14	0.06	0.23	0.60	16.57	0.	17.60	1.003	-0.	0	999
28213	STM141	COAL-FG	55.	0.01	0.006 11.73	3.2	0.25	0.10	0.37	0.35	16.57	0.	17.64	1.005	-1.	1	24
28213	STM141	COAL-AF	55.	0.01	0.006 11.73	3.0	0.23	0.10	0.32	0.35	16.57	0.	17.57	1.001	-1.	4	15
28213	STM088	RESIDUA	55.	0.00	0.003 11.73	1.6	0.12	0.05	0.22	0.57	16.64	0.	17.60	1.003	-0.	0	127

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28213	STM088	COAL-FG	55.	0.00	0.003 11.73	2.9	0.22	0.09	0.36	0.33	16.64	0.	17.65	1.005	-1.	0	30
28213	STM088	COAL-AF	55.	0.00	0.003 11.73	2.8	0.21	0.09	0.32	0.33	16.64	0.	17.60	1.002	-1.	3	19
28213	PFBSTM	COAL-PF	55.	0.02	0.011 11.73	4.6	0.35	0.15	0.40	0.39	16.40	0.	17.69	1.007	-2.	1	23
28213	TISTMT	RESIDUA	55.	0.03	0.017 11.73	8.4	0.63	0.27	0.41	0.72	16.26	0.	18.29	1.042	-6.	0	116
28213	TISTMT	COAL	55.	0.03	0.017 11.73	10.7	0.81	0.34	0.57	0.42	16.26	0.	18.41	1.048	-7.	0	891
28213	TIHRSG	RESIDUA	55.	0.02	0.007 11.73	8.2	0.61	0.26	0.33	0.75	16.40	0.	18.34	1.045	-6.	0	86
28213	TIHRSG	COAL	55.	0.02	0.007 11.73	10.6	0.80	0.34	0.49	0.43	16.40	0.	18.47	1.052	-7.	0	149
28213	STIRL	DISTILL	55.	0.04	0.016 11.73	2.0	0.15	0.06	0.21	1.13	16.06	0.	17.62	1.004	-1.	0	999
28213	STIRL	RESIDUA	55.	0.04	0.016 11.73	2.0	0.15	0.06	0.21	0.92	16.06	0.	17.41	0.992	0.	16	6
28213	STIRL	COAL	55.	0.04	0.016 11.73	3.9	0.29	0.12	0.36	0.54	16.06	0.	17.37	0.990	-1.	10	9
28213	HEGT60	COAL-AF	55.	0.11	0.006 11.73	17.8	1.35	0.57	0.73	1.32	14.90	0.	18.87	1.075	-12.	0	999
28213	HEGT00	COAL-AF	55.	0.03	0.006 11.73	7.7	0.59	0.25	0.38	0.57	16.19	0.	17.97	1.024	-4.	0	999
28213	FCMCCL	COAL	55.	0.05	0.028 11.73	8.9	0.69	0.29	0.49	0.57	15.81	0.	17.85	1.017	-5.	1	23
28213	FCSTCL	COAL	55.	0.07	0.037 11.73	9.9	0.77	0.33	0.60	0.62	15.56	0.	17.88	1.018	-5.	1	22
28213	IGGTST	COAL	55.	0.05	0.018 11.73	8.8	0.69	0.29	0.54	0.58	15.95	0.	18.05	1.028	-5.	0	999
28213	GTSOAR	RESIDUA	55.	0.06	0.025 11.73	3.3	0.24	0.10	0.23	1.16	15.68	0.	17.42	0.992	-1.	10	9
28213	GTAC08	RESIDUA	55.	0.04	0.023 11.73	2.4	0.18	0.07	0.19	0.89	15.98	0.	17.32	0.986	0.	18	6
28213	GTAC12	RESIDUA	55.	0.06	0.028 11.73	2.6	0.20	0.08	0.21	0.99	15.78	0.	17.26	0.983	0.	17	6
28213	GTAC16	RESIDUA	55.	0.06	0.032 11.73	3.0	0.22	0.09	0.22	1.08	15.64	0.	17.26	0.983	0.	16	6
28213	GTWC16	RESIDUA	55.	0.07	0.030 11.73	3.3	0.24	0.10	0.23	1.13	15.62	0.	17.33	0.987	-0.	12	7
28213	CC1626	RESIDUA	55.	0.09	0.039 11.73	4.0	0.30	0.13	0.34	1.37	15.23	0.	17.36	0.989	-1.	10	9
28213	CC1622	RESIDUA	55.	0.08	0.037 11.73	3.5	0.26	0.11	0.32	1.25	15.39	0.	17.33	0.987	-0.	11	8
28213	CC1222	RESIDUA	55.	0.08	0.037 11.73	3.3	0.25	0.11	0.31	1.24	15.40	0.	17.31	0.986	-0.	12	7
28213	CC0822	RESIDUA	55.	0.06	0.031 11.73	3.0	0.23	0.10	0.29	1.05	15.69	0.	17.36	0.989	-0.	12	8
28213	DEADV3	RESIDUA	55.	0.19	0.056 11.73	8.4	0.62	0.26	0.45	2.70	13.62	0.	17.65	1.005	-4.	4	16
28213	DEHTPM	RESIDUA	55.	0.06	0.026 11.73	4.8	0.36	0.15	0.32	1.07	15.75	0.	17.66	1.006	-2.	2	20
28213	DESOA3	DISTILL	55.	0.23	0.056 11.73	10.9	0.81	0.34	0.53	4.14	12.95	0.	18.76	1.069	-8.	0	79
28213	DESOA3	RESIDUA	55.	0.23	0.056 11.73	10.9	0.81	0.34	0.53	3.37	12.95	0.	18.00	1.025	-6.	0	28
28213	GTSOAD	DISTILL	55.	0.05	0.026 11.73	2.5	0.18	0.08	0.20	1.24	15.81	0.	17.51	0.998	-0.	7	10
28213	GTRA08	DISTILL	55.	0.10	0.041 11.73	4.6	0.34	0.14	0.28	1.90	15.01	0.	17.67	1.006	-2.	2	22
28213	GTRA12	DISTILL	55.	0.10	0.041 11.73	4.3	0.32	0.14	0.27	1.80	15.10	0.	17.62	1.004	-2.	3	17
28213	GTRA16	DISTILL	55.	0.09	0.038 11.73	4.3	0.32	0.14	0.27	1.69	15.24	0.	17.65	1.005	-2.	2	20
28213	GTR208	DISTILL	55.	0.07	0.031 11.73	3.4	0.25	0.11	0.24	1.48	15.53	0.	17.60	1.003	-1.	3	17
28213	GTR212	DISTILL	55.	0.08	0.033 11.73	3.7	0.27	0.12	0.24	1.54	15.44	0.	17.61	1.003	-1.	3	18
28213	GTR216	DISTILL	55.	0.08	0.035 11.73	3.8	0.28	0.12	0.25	1.55	15.40	0.	17.60	1.003	-1.	3	17
28213	GTRW08	DISTILL	55.	0.12	0.041 11.73	5.1	0.38	0.16	0.30	2.27	14.71	0.	17.82	1.015	-3.	0	999
28213	GTRW12	DISTILL	55.	0.12	0.045 11.73	5.1	0.38	0.16	0.30	2.17	14.73	0.	17.73	1.010	-2.	0	28
28213	GTRW16	DISTILL	55.	0.11	0.042 11.73	5.0	0.37	0.16	0.29	2.00	14.92	0.	17.74	1.010	-2.	0	29
28213	GTR308	DISTILL	55.	0.09	0.028 11.73	4.0	0.29	0.12	0.26	1.93	15.21	0.	17.82	1.015	-2.	0	135
28213	GTR312	DISTILL	55.	0.09	0.037 11.73	4.1	0.30	0.13	0.26	1.76	15.20	0.	17.65	1.006	-2.	2	22
28213	GTR316	DISTILL	55.	0.09	0.036 11.73	4.2	0.31	0.13	0.26	1.74	15.23	0.	17.69	1.007	-2.	0	26
28213	FCPADS	DISTILL	55.	0.19	0.060 11.73	7.0	0.52	0.22	1.20	3.32	13.54	0.	18.79	1.070	-7.	0	69
28213	FCMCDS	DISTILL	55.	0.15	0.064 11.73	5.9	0.44	0.19	0.91	2.42	14.20	0.	18.16	1.034	-4.	0	114
28221	ONOCGN	COAL-AF	8.	0.	0. 0.73	4.2	0.32	0.14	0.43	0.69	2.28	0.	3.85	1.000	0.	0	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST **10**6	CAPITAL + !NSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28221 STM141	RESIDUA	8.	0.28	0.117 0.73	3.4	0.26	0.11	0.32	1.43	1.63	0.	3.76	0.976	1.	999	0
28221 STM141	COAL-FG	8.	0.28	0.117 0.73	6.1	0.47	0.20	0.54	0.83	1.63	0.	3.67	0.953	-0.	11	8
28221 STM141	COAL-AF	8.	0.28	0.117 0.73	5.3	0.40	0.17	0.48	0.83	1.63	0.	3.51	0.912	1.	23	5
28221 STM088	RESIDUA	8.	0.21	0.085 0.73	2.9	0.22	0.10	0.31	1.36	1.81	0.	3.80	0.986	1.	-1	0
28221 STM088	COAL-FG	8.	0.21	0.085 0.73	5.6	0.43	0.18	0.52	0.79	1.81	0.	3.73	0.967	-0.	11	8
28221 STM088	COAL-AF	8.	0.21	0.085 0.73	5.0	0.38	0.16	0.46	0.79	1.81	0.	3.60	0.934	0.	24	4
28221 PFBSTM	COAL-PF	8.	0.46	0.186 0.73	8.1	0.61	0.26	0.63	0.93	1.23	0.	3.66	0.950	-1.	9	10
28221 TISTMT	RESIDUA	8.	0.62	0.249 0.73	16.0	1.22	0.52	0.66	1.73	0.88	0.	5.00	1.298	-9.	0	125
28221 TISTMT	COAL	8.	0.62	0.249 0.73	20.4	1.55	0.66	0.92	1.00	0.88	0.	5.01	1.302	-11.	0	999
28221 TIHRSG	RESIDUA	8.	0.29	0.093 0.73	13.8	1.03	0.44	0.51	1.54	1.61	0.	5.12	1.329	-8.	0	71
28221 TIHRSG	COAL	8.	0.29	0.093 0.73	17.9	1.36	0.58	0.75	0.89	1.61	0.	5.18	1.346	-11.	0	126
28221 STIRL	DISTILL	8.	0.75	0.222 0.73	4.4	0.33	0.14	0.33	2.62	0.57	0.	3.99	1.035	-0.	0	54
28221 STIRL	RESIDUA	8.	0.75	0.222 0.73	4.4	0.33	0.14	0.33	2.14	0.57	0.	3.50	0.910	1.	161	1
28221 STIRL.	COAL	8.	0.75	0.222 0.73	7.6	0.56	0.24	0.57	1.24	0.57	0.	3.18	0.826	1.	17	6
28221 HEGT85	COAL-AF	8.	1.00	0.126 0.73	24.2	1.84	0.78	1.14	1.77	0.	0.	5.53	1.436	-15.	0	999
28221 HEGT85	COAL-AF	8.	2.75	0.160 0.73	42.6	3.23	1.37	1.57	3.66	0.	-2.40	7.43	1.930	-30.	0	180
28221 HEGT60	COAL-AF	8.	1.00	0.148 0.73	21.9	1.66	0.71	1.00	1.72	0.	0.	5.09	1.322	-12.	0	999
28221 HEGT60	COAL-AF	8.	1.12	0.153 0.73	22.5	1.71	0.73	0.90	1.85	0.	-0.17	5.02	1.303	-12.	0	999
28221 HEGT00	COAL-AF	8.	0.49	0.077 0.73	12.9	0.98	0.42	0.59	1.18	1.17	0.	4.34	1.126	-6.	0	999
28221 FCMCCL	COAL	8.	0.88	0.309 0.73	15.3	1.19	0.51	0.80	1.23	0.28	0.	4.01	1.042	-6.	4	16
28221 FCSTCL	COAL	8.	1.00	0.366 0.73	17.2	1.33	0.57	1.08	1.28	0.	0.	4.27	1.108	-8.	2	20
28221 FCSTCL	COAL	8.	1.34	0.400 0.73	18.5	1.44	0.61	1.02	1.48	0.	-0.46	4.09	1.063	-8.	3	16
28221 IGGTST	COAL	8.	0.93	0.271 0.73	15.9	1.24	0.53	0.81	1.38	0.16	0.	4.12	1.069	-7.	3	18
28221 GTSOAR	RESIDUA	8.	0.92	0.277 0.73	5.4	0.40	0.17	0.32	2.33	0.19	0.	3.41	0.884	1.	29	4
28221 GTAC08	RESIDUA	8.	0.72	0.252 0.73	4.1	0.30	0.13	0.28	1.96	0.64	0.	3.31	0.860	2.	999	0
28221 GTAC12	RESIDUA	8.	0.90	0.311 0.73	4.6	0.34	0.14	0.30	2.16	0.24	0.	3.18	0.827	2.	122	1
28221 GTAC16	RESIDUA	8.	1.00	0.342 0.73	5.2	0.39	0.16	0.36	2.29	0.	0.	3.21	0.833	2.	42	3
28221 GTAC16	RESIDUA	8.	1.01	0.343 0.73	5.2	0.38	0.16	0.32	2.31	0.	-0.02	3.15	0.819	2.	48	2
28221 GTWC16	RESIDUA	8.	1.00	0.309 0.73	5.7	0.42	0.18	0.40	2.41	0.	0.	3.41	0.885	1.	24	4
28221 GTWC16	RESIDUA	8.	1.07	0.315 0.73	5.6	0.42	0.18	0.33	2.49	0.	-0.09	3.33	0.864	1.	28	4
28221 CC1626	RESIDUA	8.	1.00	0.305 0.73	6.3	0.48	0.20	0.55	2.42	0.	0.	3.65	0.949	-0.	11	8
28221 CC1626	RESIDUA	8.	1.68	0.354 0.73	7.6	0.58	0.25	0.50	3.26	0.	-0.94	3.65	0.947	-1.	9	9
28221 CC1622	RESIDUA	8.	1.00	0.320 0.73	6.0	0.46	0.19	0.53	2.37	0.	0.	3.55	0.922	0.	15	6
28221 CC1622	RESIDUA	8.	1.52	0.362 0.73	6.9	0.52	0.22	0.47	2.98	0.	-0.71	3.48	0.905	-0.	14	7
28221 CC1222	RESIDUA	8.	1.00	0.323 0.73	5.8	0.44	0.19	0.53	2.36	0.	0.	3.51	0.912	0.	18	6
28221 CC1222	RESIDUA	8.	1.51	0.365 0.73	6.5	0.50	0.21	0.46	2.95	0.	-0.70	3.43	0.890	0.	16	6
28221 CC0822	RESIDUA	8.	1.00	0.346 0.73	5.8	0.44	0.19	0.51	2.28	0.	0.	3.41	0.885	1.	21	5
28221 CC0822	RESIDUA	8.	1.20	0.367 0.73	5.9	0.44	0.19	0.43	2.50	0.	-0.27	3.29	0.853	1.	24	4
28221 STIG15	RESIDUA	8.	1.00	0.114 0.73	6.7	0.50	0.21	0.57	3.08	0.	0.	4.36	1.133	-3.	0	63
28221 STIG15	RESIDUA	8.	40.08	0.171 0.73	90.2	6.68	2.84	5.31	77.38	0.	-53.48	38.72	10.055	-150.	0	59
28221 STIG10	RESIDUA	8.	1.00	0.164 0.73	6.2	0.46	0.20	0.53	2.91	0.	0.	4.10	1.064	-2.	0	78
28221 STIG10	RESIDUA	8.	3.71	0.218 0.73	11.7	0.87	0.37	0.73	7.59	0.	-3.70	5.86	1.521	-10.	0	61
28221 STIG1S	RESIDUA	8.	1.00	0.186 0.73	5.9	0.44	0.19	0.52	2.83	0.	0.	3.98	1.033	-1.	0	999
28221 STIG1S	RESIDUA	8.	2.17	0.228 0.73	8.0	0.60	0.25	0.54	4.77	0.	-1.61	4.55	1.182	-4.	0	64

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28221	DEADV3	RESIDUA	8.	1.00	0.236	0.73	8.4	0.62	0.26	0.57	2.66	0.	0.	4.11	1.067	-3.	0	999
28221	DEADV3	RESIDUA	8.	2.34	0.293	0.73	12.4	0.92	0.39	0.60	4.64	0.	-1.83	4.72	1.225	-6.	0	91
28221	DEHTPM	RESIDUA	8.	1.00	0.351	0.73	7.8	0.58	0.25	0.53	2.26	0.	0.	3.61	0.938	-1.	10	9
28221	DEHTPM	RESIDUA	8.	1.07	0.359	0.73	7.8	0.58	0.25	0.46	2.34	0.	-0.10	3.52	0.915	-1.	11	8
28221	DESOA3	DISTILL	8.	1.00	0.201	0.73	8.3	0.61	0.26	0.57	3.41	0.	0.	4.86	1.261	-5.	0	61
28221	DESOA3	DISTILL	8.	2.70	0.256	0.73	17.4	1.29	0.55	0.75	6.74	0.	-2.33	7.00	1.819	-16.	0	61
28221	DESOA3	RESIDUA	8.	1.00	0.201	0.73	8.3	0.61	0.26	0.57	2.78	0.	0.	4.23	1.098	-3.	0	147
28221	DESOA3	RESIDUA	8.	2.70	0.256	0.73	17.4	1.29	0.55	0.75	5.50	0.	-2.33	5.76	1.496	-12.	0	70
28221	GTSOAD	DISTILL	8.	0.86	0.265	0.73	4.2	0.31	0.13	0.29	2.66	0.32	0.	3.71	0.964	1.	999	0
28221	GTRA08	DISTILL	8.	1.00	0.310	0.73	6.5	0.48	0.20	0.46	2.94	0.	0.	4.09	1.061	-2.	0	87
28221	GTRA08	DISTILL	8.	1.40	0.344	0.73	7.1	0.53	0.22	0.38	3.55	0.	-0.55	4.13	1.073	-2.	0	89
28221	GTRA12	DISTILL	8.	1.00	0.317	0.73	6.4	0.48	0.20	0.45	2.91	0.	0.	4.05	1.051	-2.	0	125
28221	GTRA12	DISTILL	8.	1.38	0.350	0.73	7.0	0.52	0.22	0.38	3.47	0.	-0.51	4.07	1.058	-2.	0	188
28221	GTRA16	DISTILL	8.	1.00	0.319	0.73	6.7	0.49	0.21	0.45	2.91	0.	0.	4.07	1.056	-2.	0	135
28221	GTRA16	DISTILL	8.	1.29	0.345	0.73	7.1	0.53	0.22	0.38	3.33	0.	-0.39	4.06	1.055	-2.	0	999
28221	GTR208	DISTILL	8.	1.00	0.317	0.73	5.7	0.42	0.18	0.40	2.91	0.	0.	3.92	1.018	-1.	0	999
28221	GTR208	DISTILL	8.	1.07	0.325	0.73	5.7	0.42	0.18	0.33	3.02	0.	-0.10	3.85	1.000	-1.	5	13
28221	GTR212	DISTILL	8.	1.00	0.316	0.73	6.0	0.45	0.19	0.43	2.92	0.	0.	3.98	1.034	-1.	0	999
28221	GTR212	DISTILL	8.	1.15	0.330	0.73	6.1	0.45	0.19	0.35	3.14	0.	-0.20	3.93	1.020	-1.	0	27
28221	GTR216	DISTILL	8.	1.00	0.322	0.73	6.2	0.46	0.20	0.43	2.89	0.	0.	3.98	1.035	-1.	0	999
28221	GTR216	DISTILL	8.	1.18	0.340	0.73	6.4	0.47	0.20	0.36	3.15	0.	-0.24	3.93	1.022	-1.	0	26
28221	GTRW08	DISTILL	8.	1.00	0.261	0.73	6.7	0.50	0.21	0.48	3.16	0.	0.	4.34	1.127	-3.	0	63
28221	GTRW08	DISTILL	8.	1.68	0.302	0.73	8.0	0.59	0.25	0.42	4.31	0.	-0.93	4.65	1.208	-4.	0	61
28221	GTRW12	DISTILL	8.	1.00	0.278	0.73	6.7	0.50	0.21	0.48	3.08	0.	0.	4.26	1.107	-2.	0	65
28221	GTRW12	DISTILL	8.	1.71	0.324	0.73	8.1	0.60	0.25	0.42	4.24	0.	-0.98	4.54	1.180	-4.	0	63
28221	GTRW16	DISTILL	8.	1.00	0.282	0.73	6.9	0.51	0.22	0.48	3.07	0.	0.	4.27	1.109	-3.	0	66
28221	GTRW16	DISTILL	8.	1.59	0.323	0.73	8.1	0.60	0.25	0.42	4.02	0.	-0.81	4.48	1.163	-4.	0	64
28221	GTR308	DISTILL	8.	1.00	0.244	0.73	6.1	0.45	0.19	0.45	3.23	0.	0.	4.32	1.121	-2.	0	60
28221	GTR308	DISTILL	8.	1.28	0.263	0.73	6.4	0.47	0.20	0.37	3.73	0.	-0.39	4.38	1.139	-3.	0	59
28221	GTR312	DISTILL	8.	1.00	0.286	0.73	6.2	0.46	0.20	0.45	3.05	0.	0.	4.16	1.080	-2.	0	66
28221	GTR312	DISTILL	8.	1.40	0.316	0.73	6.8	0.50	0.21	0.38	3.68	0.	-0.54	4.23	1.098	-2.	0	65
28221	GTR316	DISTILL	8.	1.00	0.284	0.73	6.5	0.48	0.20	0.46	3.05	0.	0.	4.20	1.090	-2.	0	66
28221	GTR316	DISTILL	8.	1.37	0.313	0.73	7.0	0.52	0.22	0.38	3.66	0.	-0.51	4.27	1.108	-3.	0	65
28221	FCPADS	DISTILL	8.	1.00	0.215	0.73	6.7	0.49	0.21	1.06	3.35	0.	0.	5.12	1.329	-5.	0	60
28221	FCPADS	DISTILL	8.	3.06	0.279	0.73	14.5	1.08	0.46	2.51	7.25	0.	-2.82	8.48	2.202	-20.	0	60
28221	FCMCDS	DISTILL	8.	1.00	0.288	0.73	6.9	0.51	0.22	1.01	3.04	0.	0.	4.78	1.242	-4.	0	62
28221	FCMCDS	DISTILL	8.	2.42	0.360	0.73	12.4	0.92	0.39	1.90	5.29	0.	-1.94	6.55	1.701	-12.	0	62
28241	ONOCGN	RESIDUA	32.	0.	0.	3.64	1.8	0.13	0.06	0.21	1.01	9.73	0.	11.14	1.000	0.	0	0
28241	STM141	RESIDUA	32.	0.04	0.022	3.64	2.9	0.22	0.09	0.30	1.16	9.34	0.	11.11	0.997	-0.	7	11
28241	STM141	COAL-FG	32.	0.04	0.022	3.64	5.2	0.39	0.17	0.49	0.67	9.34	0.	11.07	0.993	-1.	6	12
28241	STM141	COAL-AF	32.	0.04	0.022	3.64	4.5	0.34	0.15	0.43	0.67	9.34	0.	10.94	0.982	-1.	10	9
28241	STM088	RESIDUA	32.	0.03	0.014	3.64	2.4	0.18	0.08	0.28	1.11	9.48	0.	11.14	1.000	-0.	5	13
28241	STM088	COAL-FG	32.	0.03	0.014	3.64	4.7	0.36	0.15	0.47	0.64	9.48	0.	11.11	0.997	-1.	6	12
28241	STM088	COAL-AF	32.	0.03	0.014	3.64	4.2	0.32	0.14	0.42	0.64	9.48	0.	11.00	0.988	-1.	9	10

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
					********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********											
28241 PFBSTM	COAL-PF	32.	0.07	0.040 3.64	7.0	0.53	0.22	0.56	0.76	9.01	0.	11.08	0.995	-2.	6	12
28241 TISTMT	RESIDUA	32.	0.10	0.057 3.64	13.6	1.03	0.44	0.58	1.40	8.73	0.	12.19	1.094	-9.	0	487
28241 TISTMT	COAL	32.	0.10	0.057 3.64	17.4	1.32	0.56	0.82	0.82	8.73	0.	12.25	1.099	-11.	0	999
28241 TIHRSG	RESIDUA	32.	0.06	0.023 3.64	12.7	0.94	0.40	0.47	1.36	9.14	0.	12.31	1.105	-9.	0	92
28241 TIHRSG	COAL	32.	0.06	0.023 3.64	16.4	1.24	0.53	0.70	0.79	9.14	0.	12.40	1.113	-11.	0	999
28241 STIRL	DISTILL	32.	0.14	0.054 3.64	3.7	0.27	0.12	0.30	2.17	8.40	0.	11.26	1.011	-1.	0	999
28241 STIRL	RESIDUA	32.	0.14	0.054 3.64	3.7	0.27	0.12	0.30	1.77	8.40	0.	10.86	0.975	-0.	14	7
28241 STIRL	COAL	32.	0.14	0.054 3.64	6.5	0.48	0.21	0.51	1.03	8.40	0.	10.63	0.954	-1.	12	8
28241 HEGT60	COAL-AF	32.	0.28	0.033 3.64	23.8	1.81	0.77	0.95	2.00	6.96	0.	12.49	1.121	-15.	0	999
28241 HEGT00	COAL-AF	32.	0.10	0.019 3.64	11.9	0.90	0.38	0.55	1.04	8.75	0.	11.62	1.043	-6.	0	28
28241 FCMCCL	COAL	32.	0.18	0.085 3.64	13.8	1.07	0.46	0.73	1.06	8.01	0.	11.32	1.016	-7.	4	16
28241 FCSTCL	COAL	32.	0.24	0.120 3.64	15.9	1.23	0.52	0.89	1.21	7.39	0.	11.24	1.009	-7.	4	14
28241 IGGTST	COAL	32.	0.16	0.063 3.64	13.7	1.07	0.45	0.73	1.12	8.15	0.	11.52	1.034	-7.	2	20
28241 GTSOAR	RESIDUA	32.	0.19	0.076 3.64	5.0	0.37	0.16	0.31	2.10	7.85	0.	10.78	0.968	-0.	12	7
28241 GTAC08	RESIDUA	32.	0.14	0.070 3.64	3.8	0.28	0.12	0.26	1.67	8.33	0.	10.66	0.957	1.	20	5
28241 GTAC12	RESIDUA	32.	0.18	0.086 3.64	4.2	0.31	0.13	0.28	1.86	7.97	0.	10.56	0.947	1.	20	5
28241 GTAC16	RESIDUA	32.	0.21	0.095 3.64	4.7	0.35	0.15	0.30	2.01	7.71	0.	10.53	0.945	1.	18	6
28241 GTWC16	RESIDUA	32.	0.21	0.091 3.64	5.1	0.38	0.16	0.31	2.13	7.65	0.	10.63	0.954	0.	15	7
28241 CC1626	RESIDUA	32.	0.31	0.126 3.64	6.4	0.49	0.21	0.45	2.65	6.75	0.	10.54	0.946	-0.	13	7
28241 CC1622	RESIDUA	32.	0.27	0.119 3.64	5.7	0.44	0.19	0.42	2.42	7.06	0.	10.52	0.944	0.	15	7
28241 CC1222	RESIDUA	32.	0.27	0.119 3.64	5.4	0.41	0.18	0.42	2.40	7.08	0.	10.48	0.941	0.	16	6
28241 CC0822	RESIDUA	32.	0.21	0.100 3.64	4.9	0.37	0.16	0.39	2.03	7.65	0.	10.59	0.951	0.	16	6
28241 STIG15	RESIDUA	32.	1.00	0.157 3.64	14.8	1.10	0.47	1.08	9.12	0.	0.	11.77	1.056	-8.	0	29
28241 STIG15	RESIDUA	32.	8.05	0.171 3.64	76.8	5.69	2.42	4.60	66.32	0.	-41.18	37.85	3.397	-119.	0	59
28241 STIG10	RESIDUA	32.	0.74	0.167 3.64	10.5	0.78	0.33	0.66	6.51	2.48	0.	10.76	0.966	-3.	8	10
28241 STIG1S	RESIDUA	32.	0.44	0.112 3.64	7.2	0.53	0.23	0.49	4.09	5.48	0.	10.82	0.971	-2.	9	9
28241 DEADV3	RESIDUA	32.	0.54	0.161 3.64	12.3	0.91	0.39	0.60	4.58	4.46	0.	10.93	0.981	-4.	6	11
28241 DEHTPM	RESIDUA	32.	0.20	0.088 3.64	7.2	0.53	0.23	0.43	2.02	7.79	0.	10.99	0.986	-2.	7	11
28241 DESOA3	DISTILL	32.	0.64	0.160 3.64	17.7	1.31	0.56	0.76	6.86	3.47	0.	12.95	1.162	-13.	0	87
28241 DESOA3	RESIDUA	32.	0.64	0.160 3.64	17.7	1.31	0.56	0.76	5.60	3.47	0.	11.69	1.049	-9.	1	22
28241 GTSOAD	DISTILL	32.	0.18	0.078 3.64	3.9	0.29	0.12	0.27	2.31	8.02	0.	11.02	0.989	-1.	9	9
28241 GTRA08	DISTILL	32.	0.31	0.123 3.64	6.8	0.50	0.21	0.37	3.32	6.73	0.	11.14	1.000	-2.	5	13
28241 GTRA12	DISTILL	32.	0.30	0.122 3.64	6.7	0.49	0.21	0.36	3.19	6.84	0.	11.10	0.996	-2.	6	12
28241 GTRA16	DISTILL	32.	0.27	0.114 3.64	6.7	0.50	0.21	0.36	3.03	7.06	0.	11.15	1.001	-2.	5	14
28241 GTR208	DISTILL	32.	0.22	0.094 3.64	5.3	0.39	0.17	0.32	2.70	7.55	0.	11.12	0.998	-2.	5	13
28241 GTR212	DISTILL	32.	0.24	0.100 3.64	5.7	0.42	0.18	0.33	2.80	7.39	0.	11.12	0.998	-2.	5	13
28241 GTR216	DISTILL	32.	0.25	0.105 3.64	5.9	0.44	0.19	0.34	2.82	7.33	0.	11.11	0.997	-2.	5	13
28241 GTRW08	DISTILL	32.	0.37	0.123 3.64	7.6	0.57	0.24	0.41	4.00	6.18	0.	11.39	1.022	-4.	0	26
28241 GTRW12	DISTILL	32.	0.37	0.134 3.64	7.6	0.57	0.24	0.40	3.88	6.16	0.	11.25	1.009	-3.	3	17
28241 GTRW16	DISTILL	32.	0.34	0.125 3.64	7.6	0.56	0.24	0.40	3.62	6.46	0.	11.27	1.012	-3.	3	18
28241 GTR308	DISTILL	32.	0.28	0.086 3.64	6.1	0.45	0.19	0.35	3.44	7.03	0.	11.47	1.029	-3.	0	999
28241 GTR312	DISTILL	32.	0.29	0.111 3.64	6.3	0.46	0.20	0.36	3.24	6.93	0.	11.18	1.004	-2.	4	15
28241 GTR316	DISTILL	32.	0.28	0.108 3.64	6.5	0.48	0.20	0.36	3.22	6.97	0.	11.24	1.008	-2.	3	17
28241 FCPADS	DISTILL	32.	0.61	0.182 3.64	12.4	0.92	0.39	2.16	6.22	3.75	0.	13.44	1.206	-12.	0	69

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28241 FCMCDS	DISTILL	32.	0.49	0.192 3.64	10.7	0.80	0.34	1.64	4.54	5.00	0.	12.31	1.105	-8.	0	108
28242 ONGCGN	RESIDUA	11.	0.	0. 1.63	1.5	0.11	0.05	0.19	0.86	3.71	0.	4.92	1.000	0.	0	0
28242 STM141	RESIDUA	11.	0.17	0.085 1.63	2.9	0.22	0.09	0.29	1.10	3.09	0.	4.78	0.972	-0.	12	8
28242 STM141	COAL-FG	11.	0.17	0.085 1.63	4.9	0.37	0.16	0.47	0.64	3.09	0.	4.72	0.960	-1.	9	9
28242 STM141	COAL-AF	11.	0.17	0.085 1.63	4.4	0.33	0.14	0.41	0.64	3.09	0.	4.61	0.938	-0.	12	8
28242 STM088	RESIDUA	11.	0.13	0.056 1.63	2.4	0.19	0.08	0.27	1.05	3.23	0.	4.81	0.977	-0.	12	8
28242 STM088	COAL-FG	11.	0.13	0.066 1.63	4.5	0.34	0.14	0.45	0.61	3.23	0.	4.76	0.968	-1.	8	10
28242 STM088	COAL-AF	11.	0.13	0.066 1.63	4.1	0.31	0.13	0.40	0.61	3.23	0.	4.68	0.951	-1.	11	8
28242 PFBSTM	COAL-PF	11.	0.25	0.125 1.63	6.5	0.50	0.21	0.53	0.71	2.78	0.	4.73	0.961	-2.	8	10
28242 TISTMT	RESIDUA	11.	0.32	0.162 1.63	12.4	0.94	0.40	0.54	1.33	2.51	0.	5.72	1.162	-8.	0	999
28242 TISTMT	COAL	11.	0.32	0.162 1.63	15.8	1.20	0.51	0.76	0.77	2.51	0.	5.74	1.167	-9.	0	999
28242 TIHRSG	RESIDUA	11.	0.13	0.055 1.63	10.0	0.74	0.31	0.39	1.09	3.23	0.	5.77	1.172	-7.	0	108
28242 TIHRSG	COAL	11.	0.13	0.055 1.63	12.9	0.98	0.42	0.58	0.63	3.23	0.	5.84	1.187	-8.	0	999
28242 STIRL	DISTILL	11.	0.36	0.135 1.63	3.1	0.23	0.10	0.27	1.97	2.36	0.	4.92	1.000	-1.	5	13
28242 STIRL	RESIDUA	11.	0.36	0.135 1.63	3.1	0.23	0.10	0.27	1.60	2.36	0.	4.56	0.926	0.	19	5
28242 STIRL	COAL	11.	0.36	0.135 1.63	5.6	0.41	0.18	0.46	0.93	2.36	0.	4.34	0.882	-0.	14	7
28242 HEGT85	COAL-AF	11.	0.81	0.190 1.63	23.4	1.78	0.76	0.90	1.75	0.72	0.	5.90	1.200	-14.	0	27
28242 HEGT60	COAL-AF	11.	0.43	0.104 1.63	15.2	1.15	0.49	0.64	1.17	2.10	0.	5.54	1.126	-9.	0	27
28242 HEGT00	COAL-AF	11.	0.21	0.047 1.63	9.4	0.71	0.30	0.45	0.83	2.93	0.	5.23	1.063	-5.	1	24
28242 FCMCCL	COAL	11.	0.39	0.171 1.63	11.4	0.89	0.38	0.62	0.90	2.26	0.	5.04	1.024	-5.	4	15
28242 FCSTCL	COAL	11.	0.67	0.301 1.63	14.5	1.13	0.48	0.33	1.14	1.24	0.	4.82	0.979	-6.	5	13
28242 IGGTST	COAL	11.	0.47	0.174 1.63	12.6	0.98	0.42	0.69	1.06	1.95	0.	5.11	1.038	-6.	4	16
28242 GTSOAR	RESIDUA	11.	0.40	0.154 1.63	3.9	0.29	0.12	0.26	1.63	2.24	0.	4.55	0.924	0.	15	6
28242 GTAC08	RESIDUA	11.	0.32	0.139 1.63	3.0	0.23	0.10	0.23	1.44	2.51	0.	4.49	0.914	1.	21	5
28242 GTAC12	RESIDUA	11.	0.40	0.172 1.63	3.4	0.25	0.11	0.24	1.56	2.23	0.	4.39	0.892	1.	22	5
28242 GTAC16	RESIDUA	11.	0.44	0.191 1.63	3.7	0.28	0.12	0.25	1.65	2.06	0.	4.35	0.885	1.	20	5
28242 GTWC16	RESIDUA	11.	0.48	0.181 1.63	4.2	0.31	0.13	0.27	1.82	1.94	0.	4.46	0.908	0.	16	6
28242 CC1626	RESIDUA	11.	0.83	0.316 1.63	6.0	0.46	0.19	0.43	2.51	0.63	0.	4.22	0.857	0.	15	7
28242 CC1622	RESIDUA	11.	0.75	0.298 1.63	5.3	0.41	0.17	0.40	2.28	0.94	0.	4.20	0.854	0.	16	6
28242 CC1222	RESIDUA	11.	0.75	0.300 1.63	5.1	0.39	0.17	0.40	2.27	0.94	0.	4.16	0.846	1.	17	6
28242 CC0822	RESIDUA	11.	0.60	0.259 1.63	4.7	0.35	0.15	0.37	1.92	1.48	0.	4.27	0.869	0.	17	6
28242 STIG15	RESIDUA	11.	1.00	0.141 1.63	7.6	0.56	0.24	0.64	3.95	0.	0.	5.39	1.097	-4.	0	999
28242 STIG15	RESIDUA	11.	17.96	0.171 1.63	59.2	4.38	1.86	3.79	56.38	0.	-37.74	28.68	5.830	-102.	0	59
28242 STIG10	RESIDUA	11.	1.00	0.201 1.63	6.8	0.51	0.22	0.55	3.67	0.	0.	4.95	1.006	-3.	4	14
28242 STIG10	RESIDUA	11.	1.66	0.218 1.63	8.6	0.64	0.27	0.57	5.53	0.	-1.47	5.55	1.128	-5.	0	***
28242 STIG1S	RESIDUA	11.	0.97	0.223 1.63	6.0	0.44	0.19	0.43	3.48	0.09	0.	4.63	0.941	-1.	10	9
28242 DEADV3	RESIDUA	11.	0.93	0.292 1.63	8.4	0.62	0.26	0.45	3.01	0.25	0.	4.59	0.934	-2.	8	10
28242 DEHTPM	RESIDUA	11.	0.50	0.231 1.63	5.9	0.44	0.19	0.37	1.68	1.84	0.	4.52	0.919	-1.	11	8
28242 DESOA3	DISTILL	11.	1.00	0.270 1.63	9.9	0.73	0.31	0.55	4.12	0.	0.	5.72	1.162	-6.	0	165
28242 DESOA3	DISTILL	11.	1.05	0.273 1.63	10.2	0.75	0.32	0.51	4.28	0.	-0.12	5.74	1.168	-7.	0	148
28242 DESOA3	RESIDUA	11.	1.00	0.270 1.63	9.9	0.73	0.31	0.55	3.36	0.	0.	4.96	1.008	-4.	4	14
28242 DESOA3	RESIDUA	11.	1.05	0.273 1.63	10.2	0.75	0.32	0.51	3.49	0.	-0.12	4.96	1.007	-4.	4	14
28242 GTSOAD	DISTILL	11.	0.38	0.158 1.63	3.1	0.23	0.10	0.24	1.90	2.30	0.	4.77	0.969	-0.	11	8
28242 GTRA08	DISTILL	11.	0.59	0.237 1.63	5.1	0.38	0.16	0.30	2.43	1.51	0.	4.79	0.973	-1.	8	10

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28242 GTRA12	DISTILL	11.	0.59	0.238 1.63	5.0	0.37	0.16	0.30	2.40	1.54	0.	4.76	0.968	-1.	8	10
28242 GTRA16	DISTILL	11.	0.55	0.225 1.63	5.1	0.38	0.16	0.30	2.32	1.66	0.	4.82	0.980	-1.	7	11
28242 GTR208	DISTILL	11.	0.46	0.187 1.63	4.1	0.30	0.13	0.27	2.12	1.99	0.	4.81	0.979	-1.	8	10
28242 GTR212	DISTILL	11.	0.50	0.200 1.63	4.4	0.33	0.14	0.28	2.21	1.86	0.	4.82	0.980	-1.	7	10
28242 GTR216	DISTILL	11.	0.51	0.208 1.63	4.6	0.34	0.14	0.28	2.21	1.82	0.	4.80	0.977	-1.	8	10
28242 GTRW08	DISTILL	11.	0.71	0.239 1.63	5.8	0.43	0.18	0.33	2.97	1.07	0.	4.99	1.014	-2.	4	16
28242 GTRW12	DISTILL	11.	0.73	0.259 1.63	5.9	0.44	0.19	0.33	2.95	0.99	0.	4.90	0.996	-2.	5	13
28242 GTRW16	DISTILL	11.	0.69	0.245 1.63	5.9	0.44	0.19	0.33	2.82	1.16	0.	4.94	1.003	-2.	5	14
28242 GTR308	DISTILL	11.	0.54	0.173 1.63	4.6	0.34	0.14	0.29	2.55	1.71	0.	5.03	1.023	-2.	1	23
28242 GTR312	DISTILL	11.	0.61	0.219 1.63	5.0	0.37	0.16	0.30	2.61	1.45	0.	4.89	0.994	-2.	5	12
28242 GTR316	DISTILL	11.	0.60	0.215 1.63	5.2	0.38	0.16	0.31	2.60	1.48	0.	4.93	1.003	-2.	4	14
28242 FCPADS	DISTILL	11.	1.00	0.265 1.63	8.0	0.59	0.25	1.47	4.14	0.	0.	6.46	1.313	-8.	0	67
28242 FCPADS	DISTILL	11.	1.37	0.279 1.63	9.7	0.72	0.31	1.82	5.29	0.	-0.82	7.31	1.487	-12.	0	64
28242 FCMCDS	DISTILL	11.	1.00	0.354 1.63	8.1	0.60	0.26	1.36	3.64	0.	0.	5.85	1.190	-6.	0	97
28242 FCMCDS	DISTILL	11.	1.08	0.360 1.63	8.4	0.62	0.27	1.38	3.86	0.	-0.19	5.94	1.208	-7.	0	89
28651 ONOCGN	COAL-FG	4.	0.	0. 0.03	29.1	2.21	0.94	1.73	6.09	1.34	0.	12.30	1.000	0.	0	0
28651 STM141	RESIDUA	4.	1.00	0.071 0.03	20.1	1.53	0.65	1.17	10.99	0.	0.	14.34	1.165	-2.	-18	0
28651 STM141	RESIDUA	4.	8.28	0.322 0.03	22.0	1.67	0.71	1.09	14.68	0.	-5.84	12.31	1.001	3.	-5	0
28651 STM141	COAL-FG	4.	1.00	0.071 0.03	35.6	2.70	1.15	2.31	6.38	0.	0.	12.54	1.019	-4.	1	23
28651 STM141	COAL-FG	4.	8.28	0.322 0.03	40.1	3.04	1.29	2.29	8.53	0.	-5.84	9.31	0.756	4.	21	5
28651 STM141	COAL-AF	4.	1.00	0.071 0.03	33.9	2.57	1.09	2.22	6.38	0.	0.	12.27	0.997	-2.	5	13
28651 STM141	COAL-AF	4.	8.28	0.322 0.03	34.0	2.58	1.10	2.22	8.53	0.	-5.84	8.58	0.697	9.	44	3
28651 STM088	RESIDUA	4.	1.00	0.071 0.03	19.9	1.51	0.64	1.18	10.99	0.	0.	14.32	1.164	-2.	-18	0
28651 STM088	RESIDUA	4.	6.27	0.278 0.03	20.0	1.51	0.64	1.03	13.66	0.	-4.23	12.62	1.026	3.	-7	0
28651 STM088	COAL-FG	4.	1.00	0.071 0.03	35.8	2.72	1.16	2.33	6.38	0.	0.	12.58	1.023	-4.	1	25
28651 STM088	COAL-FG	4.	6.27	0.278 0.03	37.3	2.83	1.20	2.15	7.93	0.	-4.23	9.89	0.804	4.	22	5
28651 STM088	COAL-AF	4.	1.00	0.071 0.03	34.0	2.58	1.10	2.25	6.38	0.	0.	12.30	1.000	-2.	5	14
28651 STM088	COAL-AF	4.	6.27	0.278 0.03	32.7	2.48	1.05	2.15	7.93	0.	-4.23	9.39	0.763	7.	45	3
28651 PFBSTM	COAL-PF	4.	1.00	0.070 0.03	34.4	2.61	1.11	2.28	6.39	0.	0.	12.38	1.007	-3.	3	17
28651 PFBSTM	COAL-PF	4.	12.74	0.381 0.03	47.3	3.59	1.53	3.66	9.93	0.	-9.42	9.28	0.755	1.	15	6
28651 TISTMT	RESIDUA	4.	1.00	0.070 0.03	28.7	2.18	0.93	1.36	11.00	0.	0.	15.46	1.257	-10.	999	0
28651 TISTMT	RESIDUA	4.	10.17	0.348 0.03	87.3	6.62	2.82	3.00	15.77	0.	-7.36	20.85	1.694	-55.	0	70
28651 TISTMT	COAL	4.	1.00	0.070 0.03	43.9	3.33	1.42	2.46	6.39	0.	0.	13.60	1.105	-11.	0	999
28651 TISTMT	COAL	4.	16.73	0.419 0.03	150.8	11.44	4.87	5.16	11.14	0.	-12.63	19.98	1.624	-82.	0	999
28651 TIHRSG	RESIDUA	4.	1.00	0.056 0.03	36.2	2.68	1.14	1.50	11.17	0.	0.	16.48	1.339	-16.	0	57
28651 TIHRSG	RESIDUA	4.	4.40	0.178 0.03	74.2	5.50	2.34	2.51	13.49	0.	-2.73	21.11	1.715	-48.	0	63
28651 TIHRSG	COAL	4.	1.00	0.056 0.03	53.2	4.04	1.72	2.66	6.48	0.	0.	14.90	1.211	-20.	0	102
28651 TIHRSG	COAL	4.	7.24	0.237 0.03	128.6	9.76	4.15	4.36	8.96	0.	-5.01	22.23	1.807	-79.	0	119
28651 STIRL	DISTILL	4.	1.00	0.051 0.03	22.8	1.69	0.72	1.16	13.76	0.	0.	17.33	1.408	-12.	-42	0
28651 STIRL	DISTILL	4.	11.61	0.270 0.03	42.4	3.14	1.33	1.84	23.41	0.	-8.52	21.20	1.723	-34.	0	57
28651 STIRL	RESIDUA	4.	1.00	0.051 0.03	22.8	1.69	0.72	1.16	11.22	0.	0.	14.79	1.202	-4.	-25	0
28651 STIRL	RESIDUA	4.	11.61	0.270 0.03	42.4	3.14	1.34	1.84	19.10	0.	-8.52	16.90	1.373	-20.	0	59
28651 STIRL	COAL	4.	1.00	0.051 0.03	36.7	2.72	1.16	2.23	6.52	0.	0.	12.62	1.026	-4.	0	28
28651 STIRL	COAL	4.	19.11	0.320 0.03	100.6	7.45	3.17	4.04	14.31	0.	-14.54	14.44	1.174	-40.	2	20

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY SYSTEM	CONV.	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
						********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********											
28651	HEGT85	COAL-AF	4.	1.00	0.025 0.03	40.0	3.04	1.29	2.21	6.70	0.	0.	13.23	1.075	-8.	0	999
28651	HEGT85	COAL-AF	4.	59.06	0.194 0.03	256.2	19.44	8.27	9.72	42.17	0.	-46.61	32.99	2.681	-174.	0	281
28651	HEGT60	COAL-AF	4.	1.00	0.028 0.03	39.7	3.01	1.28	2.21	6.68	0.	0.	13.18	1.071	-8.	0	999
28651	HEGT60	COAL-AF	4.	26.58	0.190 0.03	144.0	10.93	4.65	5.63	21.78	0.	-20.53	22.46	1.825	-87.	0	619
28651	HEGT00	COAL-AF	4.	1.00	0.029 0.03	39.3	2.98	1.27	2.23	6.67	0.	0.	13.15	1.069	-8.	0	999
28651	HEGT00	COAL-AF	4.	11.97	0.152 0.03	85.2	6.47	2.75	3.60	13.11	0.	-8.80	17.12	1.391	-42.	0	999
28651	FCMCCL	COAL	4.	1.00	-0.511 0.03	43.2	3.36	1.43	2.38	10.38	0.	0.	17.55	1.426	-24.	0	59
28651	FCMCCL	COAL	4.	21.77	0.224 0.03	104.2	8.10	3.44	5.78	17.94	0.	-16.68	18.59	1.511	-57.	0	999
28651	FCSTCL	COAL	4.	1.00	-0.508 0.03	42.4	3.29	1.40	2.40	10.36	0.	0.	17.45	1.418	-23.	0	59
28651	FCSTCL	COAL	4.	35.18	0.339 0.03	129.9	10.10	4.29	7.23	22.24	0.	-27.44	16.43	1.335	-63.	1	24
28651	IGGTST	COAL	4.	1.00	-0.521 0.03	40.6	3.15	1.34	2.35	10.45	0.	0.	17.29	1.405	-22.	0	59
28651	IGGTST	COAL	4.	24.79	0.187 0.03	101.1	7.86	3.34	3.46	20.73	0.	-19.10	16.31	1.325	-48.	0	999
28651	GTSOAR	RESIDUA	4.	1.00	0.053 0.03	21.3	1.58	0.67	1.09	11.20	0.	0.	14.54	1.182	-3.	-20	0
28651	GTSOAR	RESIDUA	4.	13.70	0.296 0.03	32.0	2.37	1.01	1.51	20.38	0.	-10.19	15.07	1.225	-10.	0	56
28651	GTAC08	RESIDUA	4.	1.00	0.060 0.03	20.7	1.54	0.65	1.08	11.12	0.	0.	14.38	1.169	-2.	-19	0
28651	GTAC08	RESIDUA	4.	10.87	0.309 0.03	26.6	1.97	0.84	1.35	17.37	0.	-7.93	13.62	1.107	-3.	-27	0
28651	GTAC12	RESIDUA	4.	1.00	0.060 0.03	20.7	1.53	0.65	1.07	11.12	0.	0.	14.38	1.168	-2.	-18	0
28651	GTAC12	RESIDUA	4.	13.50	0.334 0.03	30.4	2.25	0.96	1.46	19.09	0.	-10.03	13.73	1.116	-5.	0	55
28651	GTAC16	RESIDUA	4.	1.00	0.059 0.03	20.8	1.54	0.66	1.07	11.13	0.	0.	14.40	1.170	-2.	-19	0
28651	GTAC16	RESIDUA	4.	15.21	0.344 0.03	33.7	2.50	1.06	1.55	20.32	0.	-11.41	14.03	1.140	-7.	0	57
28651	GTWC16	RESIDUA	4.	1.00	0.053 0.03	21.1	1.56	0.66	1.08	11.20	0.	0.	14.51	1.179	-3.	-20	0
28651	GTWC16	RESIDUA	4.	16.09	0.315 0.03	33.0	2.45	1.04	1.55	22.04	0.	-12.12	14.96	1.216	-10.	0	56
28651	CC1626	RESIDUA	4.	1.00	0.053 0.03	20.9	1.58	0.67	1.14	11.20	0.	0.	14.60	1.187	-3.	-21	0
28651	CC1626	RESIDUA	4.	26.78	0.361 0.03	43.3	3.29	1.40	2.00	29.76	0.	-20.69	15.75	1.280	-18.	0	61
28651	CC1622	RESIDUA	4.	1.00	0.056 0.03	20.6	1.56	0.67	1.14	11.17	0.	0.	14.54	1.182	-3.	-20	0
28651	CC1622	RESIDUA	4.	24.12	0.369 0.03	43.3	3.28	1.40	1.96	27.12	0.	-18.56	15.20	1.235	-16.	0	63
28651	CC1222	RESIDUA	4.	1.00	0.056 0.03	20.5	1.55	0.66	1.13	11.17	0.	0.	14.51	1.179	-3.	-20	0
28651	CC1222	RESIDUA	4.	24.04	0.373 0.03	41.3	3.13	1.33	1.93	26.91	0.	-18.49	14.81	1.204	-14.	0	63
28651	CC0822	RESIDUA	4.	1.00	0.060 0.03	20.7	1.57	0.67	1.14	11.12	0.	0.	14.49	1.178	-3.	-20	0
28651	CC0822	RESIDUA	4.	19.25	0.376 0.03	35.3	2.68	1.14	1.75	22.74	0.	-14.65	13.66	1.110	-7.	0	62
28651	STIG15	RESIDUA	4.	1.00	0.020 0.03	20.8	1.54	0.65	1.10	11.60	0.	0.	14.89	1.210	-4.	-21	0
28651	STIG15	RESIDUA	4.	605.18	0.171 0.03	662.2	49.04	20.85	39.42	685.34	0.	-485.02	309.63	25.165	-1231.	0	58
28651	STIG10	RESIDUA	4.	1.00	0.028 0.03	20.6	1.52	0.65	1.09	11.50	0.	0.	14.75	1.199	-3.	-20	0
28651	STIG10	RESIDUA	4.	55.96	0.218 0.03	79.0	5.85	2.49	4.22	67.24	0.	-44.12	35.67	2.899	-96.	0	58
28651	STIG1S	RESIDUA	4.	1.00	0.032 0.03	20.5	1.52	0.65	1.09	11.45	0.	0.	14.70	1.195	-3.	-20	0
28651	STIG1S	RESIDUA	4.	32.83	0.228 0.03	50.6	3.74	1.59	2.92	42.26	0.	-25.56	24.97	2.029	-49.	0	57
28651	DEADV3	RESIDUA	4.	1.00	0.042 0.03	24.7	1.83	0.78	1.19	11.34	0.	0.	15.14	1.231	-6.	-34	0
28651	DEADV3	RESIDUA	4.	34.13	0.297 0.03	105.4	7.81	3.32	3.56	39.70	0.	-26.60	27.79	2.258	-84.	0	63
28651	DEHTPM	RESIDUA	4.	1.00	0.062 0.03	24.8	1.84	0.78	1.23	11.10	0.	0.	14.95	1.215	-6.	-33	0
28651	DEHTPM	RESIDUA	4.	16.46	0.368 0.03	60.1	4.45	1.89	2.38	20.66	0.	-12.41	16.98	1.380	-29.	0	68
28651	DESOA3	DISTILL	4.	1.00	0.036 0.03	23.9	1.77	0.75	1.17	13.99	0.	0.	17.68	1.437	-14.	-50	0
28651	DESOA3	DISTILL	4.	39.14	0.260 0.03	146.5	10.85	4.61	4.63	57.35	0.	-30.62	46.82	3.805	-163.	0	60
28651	DESOA3	RESIDUA	4.	1.00	0.036 0.03	23.9	1.77	0.75	1.17	11.41	0.	0.	15.10	1.228	-6.	-30	0
28651	DESOA3	RESIDUA	4.	39.14	0.260 0.03	146.5	10.85	4.61	4.63	46.78	0.	-30.62	36.25	2.946	-130.	0	63

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28651 GTSOAD	DISTILL	4.	1.00	0.058 0.03	20.5	1.52	0.65	1.07	13.67	0.	0.	16.90	1.374	-10.	-31	0
28651 GTSOAD	DISTILL	4.	12.95	0.315 0.03	27.5	2.03	0.86	1.39	23.45	0.	-9.59	18.15	1.475	-17.	119	0
28651 GTRA08	DISTILL	4.	1.00	0.054 0.03	21.4	1.59	0.67	1.08	13.71	0.	0.	17.05	1.386	-11.	-35	0
28651 GTRA08	DISTILL	4.	20.80	0.347 0.03	43.1	3.20	1.36	1.82	30.82	0.	-15.90	21.30	1.731	-34.	0	57
28651 GTRA12	DISTILL	4.	1.00	0.055 0.03	21.3	1.58	0.67	1.08	13.70	0.	0.	17.03	1.384	-11.	-34	0
28651 GTRA12	DISTILL	4.	20.44	0.352 0.03	41.6	3.08	1.31	1.78	30.20	0.	-15.61	20.76	1.688	-32.	0	57
28651 GTRA16	DISTILL	4.	1.00	0.056 0.03	21.5	1.60	0.68	1.09	13.69	0.	0.	17.05	1.386	-11.	-35	0
28651 GTRA16	DISTILL	4.	19.17	0.348 0.03	41.9	3.10	1.32	1.78	29.05	0.	-14.59	20.67	1.680	-32.	0	57
28651 GTR208	DISTILL	4.	1.00	0.055 0.03	21.1	1.56	0.66	1.08	13.70	0.	0.	17.01	1.382	-11.	-34	0
28651 GTR208	DISTILL	4.	16.00	0.327 0.03	34.2	2.53	1.08	1.58	26.44	0.	-12.04	19.59	1.592	-25.	0	56
28651 GTR212	DISTILL	4.	1.00	0.055 0.03	21.2	1.57	0.67	1.08	13.70	0.	0.	17.03	1.384	-11.	-34	0
28651 GTR212	DISTILL	4.	17.17	0.333 0.03	36.5	2.70	1.15	1.64	27.51	0.	-12.98	20.02	1.627	-27.	0	56
28651 GTR216	DISTILL	4.	1.00	0.056 0.03	21.3	1.58	0.67	1.08	13.69	0.	0.	17.02	1.383	-11.	-34	0
28651 GTR216	DISTILL	4.	17.58	0.342 0.03	38.6	2.86	1.21	1.69	27.59	0.	-13.31	20.04	1.629	-28.	0	57
28651 GTRW08	DISTILL	4.	1.00	0.046 0.03	21.5	1.59	0.68	1.09	13.84	0.	0.	17.19	1.397	-11.	-36	0
28651 GTRW08	DISTILL	4.	24.92	0.305 0.03	43.1	3.19	1.36	1.86	37.56	0.	-19.21	24.76	2.012	-45.	0	57
28651 GTRW12	DISTILL	4.	1.00	0.049 0.03	21.5	1.59	0.68	1.08	13.80	0.	0.	17.15	1.394	-11.	-35	0
28651 GTRW12	DISTILL	4.	25.50	0.326 0.03	43.6	3.23	1.37	1.86	37.06	0.	-19.67	23.85	1.938	-43.	0	57
28651 GTRW16	DISTILL	4.	1.00	0.049 0.03	21.6	1.60	0.68	1.09	13.79	0.	0.	17.16	1.395	-11.	-36	0
28651 GTRW16	DISTILL	4.	23.78	0.325 0.03	43.3	3.21	1.36	1.85	35.22	0.	-18.28	23.36	1.899	-41.	0	57
28651 GTR308	DISTILL	4.	1.00	0.043 0.03	21.2	1.57	0.67	1.08	13.88	0.	0.	17.20	1.398	-11.	-35	0
28651 GTR308	DISTILL	4.	19.01	0.267 0.03	36.5	2.71	1.15	1.67	32.44	0.	-14.46	23.50	1.910	-38.	0	56
28651 GTR312	DISTILL	4.	1.00	0.050 0.03	21.2	1.57	0.67	1.08	13.78	0.	0.	17.10	1.390	-11.	-35	0
28651 GTR312	DISTILL	4.	20.92	0.318 0.03	37.9	2.81	1.19	1.70	32.35	0.	-15.99	22.07	1.793	-34.	0	56
28651 GTR316	DISTILL	4.	1.00	0.049 0.03	21.4	1.59	0.68	1.09	13.79	0.	0.	17.13	1.393	-11.	-35	0
28651 GTR316	DISTILL	4.	20.61	0.315 0.03	36.9	2.88	1.23	1.72	32.15	0.	-15.74	22.24	1.808	-35.	0	56
28651 FCPADS	DISTILL	4.	1.00	0.037 0.03	23.0	1.70	0.72	1.43	13.96	0.	0.	17.82	1.449	-14.	-46	0
28651 FCPADS	DISTILL	4.	46.16	0.279 0.03	124.1	9.19	3.91	21.50	64.24	0.	-36.25	62.59	5.087	-204.	0	59
28651 FCMCDS	DISTILL	4.	1.00	0.050 0.03	23.2	1.72	0.73	1.41	13.78	0.	0.	17.64	1.433	-14.	-46	0
28651 FCMCDS	DISTILL	4.	36.51	0.360 0.03	107.5	7.96	3.38	16.24	46.87	0.	-28.51	45.94	3.734	-144.	0	60
28653 ONGCGN	COAL-FG	6.	0.	0. 0.07	20.5	1.56	0.66	1.27	6.11	1.89	0.	11.50	1.000	0.	0	0
28653 STM141	RESIDUA	6.	1.00	0.096 0.07	12.4	0.94	0.40	0.94	11.25	0.	0.	13.53	1.176	-2.	-19	0
28653 STM141	RESIDUA	6.	2.23	0.179 0.07	12.0	0.91	0.39	0.75	12.13	0.	-1.39	12.78	1.111	0.	-14	0
28653 STM141	COAL-FG	6.	1.00	0.096 0.07	28.0	2.12	0.90	1.92	6.53	0.	0.	11.47	0.997	-4.	5	13
28653 STM141	COAL-FG	6.	2.23	0.179 0.07	25.3	1.92	0.82	1.58	7.04	0.	-1.39	9.97	0.866	2.	23	5
28653 STM141	COAL-AF	6.	1.00	0.096 0.07	24.5	1.86	0.79	1.80	6.53	0.	0.	10.99	0.955	-0.	13	7
28653 STM141	COAL-AF	6.	2.23	0.179 0.07	18.2	1.38	0.59	1.41	7.04	0.	-1.39	9.03	0.785	9.	999	0
28653 STM088	RESIDUA	6.	1.00	0.096 0.07	11.8	0.90	0.38	0.92	11.25	0.	0.	13.45	1.169	-2.	-18	0
28653 STM088	RESIDUA	6.	1.45	0.130 0.07	10.7	0.81	0.34	0.71	11.57	0.	-0.51	12.92	1.123	0.	-14	0
28653 STM088	COAL-FG	6.	1.00	0.096 0.07	27.1	2.06	0.87	1.87	6.53	0.	0.	11.34	0.986	-3.	7	11
28653 STM088	COAL-FG	6.	1.45	0.130 0.07	23.3	1.77	0.75	1.48	6.72	0.	-0.51	10.21	0.888	3.	29	4
28653 STM088	COAL-AF	6.	1.00	0.096 0.07	22.7	1.72	0.73	1.76	6.53	0.	0.	10.75	0.935	1.	24	5
28653 STM088	COAL-AF	6.	1.45	0.130 0.07	17.1	1.30	0.55	1.36	6.72	0.	-0.51	9.42	0.819	8.	999	0
28653 PFBSTM	COAL-PF	6.	1.00	0.093 0.07	28.1	2.13	0.91	1.99	6.55	0.	0.	11.58	1.007	-4.	4	15

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM		SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28653	PFBSTM	COAL-PF	6.	4.06	0.256 0.07	30.8	2.34	0.99	2.37	7.90	0.	-3.48	10.12	0.879	-1.	13	7
28653	TISTMT	RESIDUA	6.	1.00	0.094 0.07	26.7	2.03	0.86	1.27	11.27	0.	0.	15.43	1.341	-15.	0	57
28653	TISTMT	RESIDUA	6.	5.59	0.308 0.07	74.9	5.68	2.42	2.37	14.67	0.	-5.22	19.92	1.732	-52.	0	68
28653	TISTMT	COAL	6.	1.00	0.094 0.07	42.9	3.26	1.39	2.24	6.54	0.	0.	13.43	1.167	-17.	0	999
28653	TISTMT	COAL	6.	5.59	0.308 0.07	95.0	7.21	3.07	3.39	8.52	0.	-5.22	16.96	1.475	-53.	0	999
28653	TIHRSG	RESIDUA	6.	1.00	0.050 0.07	34.1	2.53	1.08	1.39	11.82	0.	0.	16.81	1.462	-23.	0	58
28653	TIHRSG	RESIDUA	6.	3.45	0.125 0.07	72.8	5.39	2.29	2.19	14.97	0.	-2.78	22.06	1.918	-57.	0	63
28653	TIHRSG	COAL	6.	1.00	0.050 0.07	52.0	3.95	1.68	2.42	6.86	0.	0.	14.90	1.296	-26.	0	101
28653	TIHRSG	COAL	6.	3.45	0.125 0.07	93.2	7.08	3.01	3.23	8.69	0.	-2.78	19.23	1.672	-59.	0	100
28653	STIRL	DISTILL	6.	1.00	0.064 0.07	14.2	1.05	0.45	0.92	14.28	0.	0.	16.69	1.451	-13.	-44	0
28653	STIRL	DISTILL	6.	6.30	0.221 0.07	31.3	2.32	0.99	1.25	21.53	0.	-6.02	20.06	1.744	-32.	0	57
28653	STIRL	RESIDUA	6.	1.00	0.064 0.07	14.2	1.05	0.45	0.92	11.65	0.	0.	14.06	1.223	-5.	-26	0
28653	STIRL	RESIDUA	6.	6.30	0.221 0.07	31.4	2.32	0.99	1.25	17.57	0.	-6.02	16.10	1.400	-19.	0	58
28653	STIRL	COAL	6.	1.00	0.064 0.07	28.5	2.11	0.90	1.83	6.76	0.	0.	11.61	1.009	-4.	4	16
28653	STIRL	COAL	6.	6.30	0.221 0.07	54.7	4.05	1.72	2.43	10.20	0.	-6.02	12.38	1.076	-19.	2	19
28653	HEGT60	COAL-AF	6.	1.00	-0.003 0.07	35.7	2.71	1.15	1.92	7.24	0.	0.	13.02	1.132	-12.	0	135
28653	HEGT60	COAL-AF	6.	25.29	-0.014 0.07	173.2	13.14	5.59	6.92	34.63	0.	-27.60	32.67	2.841	-140.	0	74
28653	HEGT00	COAL-AF	6.	1.00	0.026 0.07	34.5	2.62	1.11	1.90	7.03	0.	0.	12.67	1.101	-10.	0	999
28653	HEGT00	COAL-AF	6.	5.57	0.087 0.07	61.8	4.69	1.99	2.61	11.22	0.	-5.19	15.32	1.332	-32.	0	209
28653	FCMCCL	COAL	6.	1.00	0.081 0.07	35.2	2.74	1.16	2.00	6.63	0.	0.	12.54	1.090	-11.	0	999
28653	FCHCCL	COAL	6.	9.47	0.335 0.07	71.3	5.55	2.36	3.87	11.05	0.	-9.63	13.19	1.147	-31.	2	21
28653	FCSTCL	COAL	6.	1.00	0.085 0.07	34.6	2.69	1.14	2.03	6.61	0.	0.	12.48	1.085	-10.	0	999
28653	FCSTCL	COAL	6.	13.01	0.387 0.07	82.3	6.40	2.72	4.52	12.59	0.	-13.65	12.58	1.094	-34.	3	16
28653	IGGTST	COAL	6.	1.00	0.065 0.07	34.1	2.65	1.13	1.98	6.75	0.	0.	12.50	1.087	-10.	0	999
28653	IGGTST	COAL	6.	8.83	0.262 0.07	63.9	4.97	2.11	2.38	11.73	0.	-8.89	12.29	1.069	-24.	3	16
28653	GTSOAR	RESIDUA	6.	1.00	0.060 0.07	14.3	1.06	0.45	0.87	11.69	0.	0.	14.06	1.223	-5.	-26	0
28653	GTSOAR	RESIDUA	6.	11.11	0.263 0.07	27.6	2.04	0.87	1.12	23.40	0.	-11.49	15.94	1.386	-17.	0	57
28653	GTAC08	RESIDUA	6.	1.00	0.082 0.07	13.7	1.02	0.43	0.85	11.42	0.	0.	13.72	1.193	-4.	-22	0
28653	GTAC08	RESIDUA	6.	7.67	0.311 0.07	20.0	1.48	0.63	0.89	17.35	0.	-7.58	12.76	1.110	-3.	-62	0
28653	GTAC12	RESIDUA	6.	1.00	0.080 0.07	13.7	1.02	0.43	0.85	11.44	0.	0.	13.73	1.194	-4.	-22	0
28653	GTAC12	RESIDUA	6.	9.64	0.333 0.07	23.8	1.76	0.75	1.00	19.31	0.	-9.82	13.00	1.130	-6.	0	57
28653	GTAC16	RESIDUA	6.	1.00	0.077 0.07	13.9	1.03	0.44	0.85	11.48	0.	0.	13.80	1.200	-4.	-23	0
28653	GTAC16	RESIDUA	6.	11.25	0.335 0.07	27.7	2.05	0.87	1.11	21.28	0.	-11.65	13.66	1.188	-10.	0	58
28653	GTWC16	RESIDUA	6.	1.00	0.072 0.07	14.2	1.05	0.45	0.86	11.54	0.	0.	13.90	1.208	-4.	-25	0
28653	GTWC16	RESIDUA	6.	11.38	0.316 0.07	26.3	1.95	0.83	1.08	22.07	0.	-11.80	14.12	1.228	-11.	0	57
28653	CC1626	RESIDUA	6.	1.00	0.070 0.07	14.0	1.06	0.45	0.93	11.57	0.	0.	14.01	1.218	-5.	-26	0
28653	CC1626	RESIDUA	6.	16.52	0.342 0.07	33.4	2.54	1.08	1.43	27.69	0.	-17.64	15.10	1.313	-17.	0	60
28653	CC1622	RESIDUA	6.	1.00	0.073 0.07	13.7	1.04	0.44	0.92	11.52	0.	0.	13.93	1.211	-4.	-25	0
28653	CC1622	RESIDUA	6.	14.82	0.349 0.07	33.2	2.52	1.07	1.39	25.27	0.	-15.71	14.55	1.265	-16.	0	61
28653	CC1222	RESIDUA	6.	1.00	0.074 0.07	13.5	1.03	0.44	0.92	11.51	0.	0.	13.90	1.208	-4.	-24	0
28653	CC1222	RESIDUA	6.	14.72	0.352 0.07	31.4	2.38	1.01	1.36	25.04	0.	-15.59	14.21	1.236	-14.	0	61
28653	CC0822	RESIDUA	6.	1.00	0.080 0.07	13.7	1.04	0.44	0.93	11.45	0.	0.	13.86	1.205	-4.	-24	0
28653	CC0822	RESIDUA	6.	11.58	0.351 0.07	26.0	1.97	0.84	1.20	21.16	0.	-12.02	13.16	1.144	-8.	0	59
28653	DEHTPM	RESIDUA	6.	1.00	0.065 0.07	18.1	1.34	0.57	1.04	11.63	0.	0.	14.58	1.268	-8.	-57	0

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28653 DEHTPM	RESIDUA	6.	9.24	0.263	0.07	52.6	3.90	1.66	1.89	20.74	0.	-9.36	18.83	1.637	-38.	0	61
28653 GTSOAD	DISTILL	6.	1.00	0.075	0.07	13.5	1.00	0.42	0.84	14.10	0.	0.	16.37	1.423	-12.	-39	0
28653 GTSOAD	DISTILL	6.	9.44	0.308	0.07	21.2	1.57	0.67	0.93	24.20	0.	-9.59	17.78	1.546	-20.	0	55
28653 GTRA08	DISTILL	6.	1.00	0.060	0.07	14.4	1.07	0.45	0.86	14.33	0.	0.	16.71	1.453	-13.	-45	0
28653 GTRA08	DISTILL	6.	19.09	0.305	0.07	42.8	3.17	1.35	1.55	40.02	0.	-20.55	25.54	2.221	-54.	0	57
28653 GTRA12	DISTILL	6.	1.00	0.064	0.07	14.4	1.07	0.45	0.86	14.27	0.	0.	16.65	1.448	-13.	-45	0
28653 GTRA12	DISTILL	6.	17.81	0.318	0.07	40.0	2.96	1.26	1.47	37.24	0.	-19.10	23.84	2.072	-47.	0	57
28653 GTRA16	DISTILL	6.	1.00	0.065	0.07	14.7	1.09	0.46	0.87	14.25	0.	0.	16.66	1.449	-13.	-46	0
28653 GTRA16	DISTILL	6.	16.07	0.317	0.07	39.3	2.91	1.24	1.44	34.47	0.	-17.12	22.93	1.994	-44.	0	57
28653 GTR208	DISTILL	6.	1.00	0.067	0.07	14.1	1.05	0.44	0.86	14.23	0.	0.	16.58	1.441	-13.	-43	0
28653 GTR208	DISTILL	6.	12.67	0.303	0.07	29.6	2.19	0.93	1.17	29.65	0.	-13.26	20.68	1.798	-33.	0	56
28653 GTR212	DISTILL	6.	1.00	0.067	0.07	14.3	1.06	0.45	0.86	14.23	0.	0.	16.59	1.443	-13.	-44	0
28653 GTR212	DISTILL	6.	13.61	0.310	0.07	32.0	2.37	1.01	1.24	30.88	0.	-14.33	21.17	1.840	-35.	0	57
28653 GTR216	DISTILL	6.	1.00	0.068	0.07	14.4	1.07	0.45	0.86	14.21	0.	0.	16.59	1.442	-13.	-44	0
28653 GTR216	DISTILL	6.	14.04	0.318	0.07	34.4	2.55	1.08	1.30	31.20	0.	-14.82	21.31	1.853	-37.	0	57
28653 GTRW08	DISTILL	6.	1.00	0.052	0.07	14.5	1.08	0.46	0.86	14.46	0.	0.	16.85	1.465	-14.	-47	0
28653 GTRW08	DISTILL	6.	22.19	0.270	0.07	42.1	3.12	1.33	1.57	47.32	0.	-24.07	29.26	2.544	-65.	0	57
28653 GTRW12	DISTILL	6.	1.00	0.058	0.07	14.5	1.08	0.46	0.86	14.37	0.	0.	16.76	1.457	-13.	-46	0
28653 GTRW12	DISTILL	6.	21.65	0.299	0.07	41.3	3.06	1.30	1.54	44.53	0.	-23.47	26.96	2.344	-58.	0	57
28653 GTRW16	DISTILL	6.	1.00	0.060	0.07	14.7	1.09	0.46	0.87	14.34	0.	0.	16.76	1.457	-13.	-47	0
28653 GTRW16	DISTILL	6.	19.32	0.303	0.07	39.8	2.95	1.25	1.48	40.52	0.	-20.82	25.39	2.207	-52.	0	57
28653 GTR308	DISTILL	6.	1.00	0.047	0.07	14.2	1.05	0.45	0.86	14.53	0.	0.	16.89	1.469	-14.	-45	0
28653 GTR308	DISTILL	6.	16.31	0.229	0.07	33.7	2.49	1.06	1.32	39.38	0.	-17.39	26.87	2.336	-54.	0	56
28653 GTR312	DISTILL	6.	1.00	0.063	0.07	14.3	1.06	0.45	0.86	14.28	0.	0.	16.65	1.447	-13.	-44	0
28653 GTR312	DISTILL	6.	15.89	0.305	0.07	32.6	2.41	1.03	1.28	34.78	0.	-16.92	22.58	1.963	-40.	0	56
28653 GTR316	DISTILL	6.	1.00	0.063	0.07	14.5	1.07	0.46	0.86	14.29	0.	0.	16.68	1.450	-13.	-45	0
28653 GTR316	DISTILL	6.	15.60	0.303	0.07	33.5	2.48	1.06	1.30	34.46	0.	-16.59	22.70	1.973	-41.	0	57
28653 FCPADS	DISTILL	6.	1.00	0.050	0.07	15.3	1.13	0.48	1.35	14.48	0.	0.	17.44	1.516	-16.	-57	0
28653 FCPADS	DISTILL	6.	32.76	0.279	0.07	113.7	8.42	3.58	21.02	64.53	0.	-36.08	61.47	5.344	-203.	0	59
28653 FCMCDS	DISTILL	6.	1.00	0.067	0.07	15.6	1.15	0.49	1.31	14.23	0.	0.	17.17	1.493	-15.	-57	0
28653 FCMCDS	DISTILL	6.	25.91	0.360	0.07	97.8	7.25	3.08	15.76	47.08	0.	-28.31	44.86	3.900	-142.	0	60
28654 ONOCGN	COAL-FG	1.	0.	0.	0.01	16.7	1.27	0.54	1.07	4.32	0.21	0.	7.41	1.000	0.	0	0
28654 STM141	RESIDUA	1.	1.00	0.017	0.01	8.4	0.63	0.27	0.72	7.52	0.	0.	9.15	1.235	-1.	-17	0
28654 STM141	RESIDUA	1.	6.88	0.103	0.01	8.6	0.65	0.28	0.62	7.99	0.	-0.75	8.79	1.186	-0.	-15	0
28654 STM141	COAL-FG	1.	1.00	0.017	0.01	19.8	1.50	0.64	1.46	4.37	0.	0.	7.96	1.075	-3.	0	71
28654 STM141	COAL-FG	1.	6.88	0.103	0.01	18.6	1.41	0.60	1.24	4.64	0.	-0.75	7.15	0.965	-0.	14	7
28654 STM141	COAL-AF	1.	1.00	0.017	0.01	19.1	1.45	0.62	1.40	4.37	0.	0.	7.83	1.057	-3.	0	73
28654 STM141	COAL-AF	1.	6.88	0.103	0.01	13.6	1.03	0.44	1.10	4.64	0.	-0.75	6.46	0.872	4.	999	0
28654 PFBSTM	COAL-PF	1.	1.00	0.016	0.01	18.8	1.43	0.61	1.35	4.37	0.	0.	7.76	1.047	-2.	0	75
28654 PFBSTM	COAL-PF	1.	17.93	0.200	0.01	23.2	1.76	0.75	1.77	5.24	0.	-2.16	7.37	0.995	-3.	5	13
28654 TISTMT	RESIDUA	1.	1.00	0.017	0.01	10.4	0.79	0.33	0.72	7.52	0.	0.	9.36	1.264	-3.	-22	0
28654 TISTMT	RESIDUA	1.	26.49	0.264	0.01	55.5	4.21	1.79	1.83	9.66	0.	-3.25	14.23	1.921	-40.	0	65
28654 TISTMT	COAL	1.	1.00	0.017	0.01	21.2	1.61	0.68	1.41	4.37	0.	0.	8.07	1.089	-4.	0	75
28654 TISTMT	COAL	1.	26.49	0.264	0.01	70.8	5.37	2.28	2.60	5.61	0.	-3.25	12.61	1.702	-42.	0	144

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

***********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)***********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28654	TIHRSG	RESIDUA	1.	1.00	0.009	0.01	11.3	0.84	0.36	0.69	7.58	0.	0.	9.47	1.278	-4.	-25	0
28654	TIHRSG	RESIDUA	1.	21.68	0.125	0.01	57.7	4.27	1.82	1.77	10.58	0.	-2.64	15.80	2.132	-45.	0	62
28654	TIHRSG	COAL	1.	1.00	0.009	0.01	22.4	1.70	0.72	1.38	4.40	0.	0.	8.21	1.108	-5.	0	75
28654	TIHRSG	COAL	1.	21.68	0.125	0.01	74.0	5.62	2.39	2.60	6.14	0.	-2.64	14.11	1.905	-48.	0	85
28654	STIRL	DISTILL	1.	1.00	0.012	0.01	9.0	0.67	0.28	0.64	9.27	0.	0.	10.86	1.466	-7.	-28	0
28654	STIRL	DISTILL	1.	39.60	0.221	0.01	23.2	1.72	0.73	1.00	15.21	0.	-4.93	13.73	1.854	-23.	0	56
28654	STIRL	RESIDUA	1.	1.00	0.012	0.01	9.0	0.67	0.28	0.64	7.56	0.	0.	9.15	1.236	-2.	-18	0
28654	STIRL	RESIDUA	1.	39.60	0.221	0.01	23.3	1.72	0.73	1.00	12.41	0.	-4.93	10.94	1.476	-14.	0	57
28654	STIRL	COAL	1.	1.00	0.012	0.01	19.4	1.44	0.61	1.30	4.39	0.	0.	7.74	1.045	-2.	0	78
28654	STIRL	COAL	1.	39.60	0.221	0.01	41.2	3.05	1.30	1.91	7.21	0.	-4.93	8.54	1.152	-15.	0	29
28654	HEGT60	COAL-AF	1.	1.00	-0.000	0.01	19.0	1.44	0.61	1.23	4.45	0.	0.	7.72	1.043	-2.	0	78
28654	HEGT60	COAL-AF	1.	158.97	-0.014	0.01	139.1	10.55	4.49	5.43	24.46	0.	-20.18	24.76	3.342	-113.	0	73
28654	HEGT00	COAL-AF	1.	1.00	0.005	0.01	18.9	1.43	0.61	1.23	4.42	0.	0.	7.70	1.039	-2.	0	82
28654	HEGT00	COAL-AF	1.	35.01	0.087	0.01	49.6	3.76	1.60	2.07	7.93	0.	-4.34	11.02	1.488	-27.	0	94
28654	FCMCCL	COAL	1.	1.00	0.015	0.01	21.5	1.67	0.71	1.31	4.38	0.	0.	8.07	1.089	-5.	0	82
28654	FCMCCL	COAL	1.	59.55	0.335	0.01	57.0	4.43	1.88	3.00	7.81	0.	-7.48	9.64	1.302	-27.	0	999
28654	FCSTCL	COAL	1.	1.00	0.015	0.01	21.4	1.66	0.71	1.35	4.38	0.	0.	8.10	1.094	-5.	0	79
28654	FCSTCL	COAL	1.	70.50	0.365	0.01	61.6	4.79	2.04	3.31	8.32	0.	-8.88	9.58	1.294	-29.	0	28
28654	IGGTST	COAL	1.	1.00	0.011	0.01	20.8	1.61	0.69	1.38	4.39	0.	0.	8.07	1.090	-4.	0	75
28654	IGGTST	COAL	1.	45.61	0.227	0.01	48.4	3.76	1.60	1.91	7.73	0.	-5.70	9.31	1.256	-22.	0	999
28654	GTSOAR	RESIDUA	1.	1.00	0.011	0.01	8.3	0.62	0.26	0.60	7.57	0.	0.	9.04	1.220	-1.	-16	0
28654	GTSOAR	RESIDUA	1.	69.83	0.263	0.01	21.9	1.62	0.69	0.93	16.53	0.	-8.79	10.98	1.483	-13.	0	57
28654	GTAC08	RESIDUA	1.	1.00	0.015	0.01	8.2	0.61	0.26	0.59	7.54	0.	0.	9.00	1.214	-1.	-16	0
28654	GTAC08	RESIDUA	1.	48.22	0.311	0.01	15.9	1.18	0.50	0.74	12.26	0.	-6.03	8.65	1.167	-3.	-52	0
28654	GTAC12	RESIDUA	1.	1.00	0.015	0.01	8.1	0.60	0.26	0.59	7.54	0.	0.	8.99	1.213	-1.	-16	0
28654	GTAC12	RESIDUA	1.	60.62	0.333	0.01	18.8	1.39	0.59	0.83	13.64	0.	-7.61	8.84	1.193	-5.	0	56
28654	GTAC16	RESIDUA	1.	1.00	0.014	0.01	8.1	0.60	0.26	0.59	7.55	0.	0.	8.99	1.214	-1.	-16	0
28654	GTAC16	RESIDUA	1.	70.73	0.335	0.01	21.8	1.61	0.69	0.92	15.03	0.	-8.91	9.34	1.261	-8.	0	58
28654	GTWC16	RESIDUA	1.	1.00	0.013	0.01	8.3	0.61	0.26	0.59	7.55	0.	0.	9.02	1.217	-1.	-16	0
28654	GTWC16	RESIDUA	1.	71.54	0.316	0.01	21.0	1.56	0.66	0.90	15.59	0.	-9.01	9.70	1.310	-9.	0	57
28654	DEHTPM	RESIDUA	1.	1.00	0.012	0.01	9.3	0.69	0.29	0.66	7.56	0.	0.	9.20	1.242	-2.	-19	0
28654	DEHTPM	RESIDUA	1.	58.08	0.263	0.01	38.9	2.88	1.22	1.49	14.66	0.	-7.29	12.96	1.749	-28.	0	61
28654	GTSOAD	DISTILL	1.	1.00	0.014	0.01	8.1	0.60	0.25	0.59	9.25	0.	0.	10.70	1.444	-6.	-25	0
28654	GTSOAD	DISTILL	1.	59.33	0.308	0.01	16.8	1.25	0.53	0.78	17.10	0.	-7.45	12.20	1.647	-15.	999	0
28654	GTRA08	DISTILL	1.	1.00	0.011	0.01	8.3	0.62	0.26	0.59	9.28	0.	0.	10.75	1.451	-6.	-26	0
28654	GTRA08	DISTILL	1.	119.96	0.305	0.01	34.0	2.52	1.07	1.28	28.27	0.	-15.19	17.96	2.424	-41.	0	57
28654	GTRA12	DISTILL	1.	1.00	0.012	0.01	8.3	0.61	0.26	0.59	9.27	0.	0.	10.73	1.449	-6.	-26	0
28654	GTRA12	DISTILL	1.	111.93	0.318	0.01	31.6	2.34	0.99	1.21	26.31	0.	-14.17	16.69	2.252	-36.	0	57
28654	GTRA16	DISTILL	1.	1.00	0.012	0.01	8.3	0.62	0.26	0.59	9.27	0.	0.	10.74	1.450	-6.	-26	0
28654	GTRA16	DISTILL	1.	101.00	0.317	0.01	31.0	2.30	0.98	1.19	24.35	0.	-12.77	16.04	2.165	-34.	0	57
28654	GTR208	DISTILL	1.	1.00	0.012	0.01	8.2	0.61	0.26	0.59	9.27	0.	0.	10.73	1.448	-6.	-26	0
28654	GTR208	DISTILL	1.	79.65	0.303	0.01	23.4	1.73	0.74	0.97	20.94	0.	-10.05	14.34	1.936	-25.	0	56
28654	GTR212	DISTILL	1.	1.00	0.012	0.01	8.3	0.61	0.26	0.59	9.27	0.	0.	10.73	1.448	-6.	-26	0
28654	GTR212	DISTILL	1.	85.57	0.310	0.01	25.3	1.87	0.80	1.03	21.82	0.	-10.80	14.72	1.987	-27.	0	57

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28654 GTR216	DISTILL	1.	1.00	0.012 0.01	8.3	0.61	0.26	0.59	9.26	0.	0.	10.73	1.448	-6.	-26	0
28654 GTR216	DISTILL	1.	88.27	0.318 0.01	27.2	2.01	0.86	1.08	22.04	0.	-11.15	14.84	2.003	-28.	0	57
28654 GTRW08	DISTILL	1.	1.00	0.009 0.01	8.3	0.62	0.26	0.59	9.29	0.	0.	10.77	1.453	-6.	-26	0
28654 GTRW08	DISTILL	1.	139.46	0.270 0.01	33.7	2.49	1.06	1.30	33.43	0.	-17.68	20.60	2.781	-49.	0	57
28654 GTRW12	DISTILL	1.	1.00	0.011 0.01	8.4	0.62	0.26	0.59	9.28	0.	0.	10.75	1.452	-6.	-26	0
28654 GTRW12	DISTILL	1.	136.09	0.299 0.01	33.0	2.45	1.04	1.28	31.46	0.	-17.25	18.97	2.560	-44.	0	57
28654 GTRW16	DISTILL	1.	1.00	0.011 0.01	8.4	0.62	0.26	0.59	9.28	0.	0.	10.76	1.452	-6.	-26	0
28654 GTRW16	DISTILL	1.	121.45	0.303 0.01	31.9	2.36	1.00	1.23	28.63	0.	-15.38	17.84	2.408	-40.	0	57
28654 GTR308	DISTILL	1.	1.00	0.009 0.01	8.2	0.61	0.26	0.59	9.30	0.	0.	10.76	1.453	-6.	-26	0
28654 GTR308	DISTILL	1.	102.51	0.229 0.01	26.8	1.99	0.85	1.10	27.82	0.	-12.96	18.80	2.537	-40.	0	56
28654 GTR312	DISTILL	1.	1.00	0.012 0.01	8.3	0.62	0.26	0.59	9.27	0.	0.	10.74	1.450	-6.	-26	0
28654 GTR312	DISTILL	1.	99.89	0.305 0.01	26.0	1.93	0.82	1.06	24.57	0.	-12.63	15.76	2.127	-30.	0	56
28654 GTR316	DISTILL	1.	1.00	0.011 0.01	8.4	0.62	0.26	0.59	9.27	0.	0.	10.75	1.451	-6.	-26	0
28654 GTR316	DISTILL	1.	98.08	0.303 0.01	26.8	1.99	0.84	1.08	24.34	0.	-12.40	15.86	2.140	-31.	0	57
28654 FCPADS	DISTILL	1.	1.00	0.009 0.01	9.0	0.66	0.28	0.63	9.30	0.	0.	10.87	1.468	-7.	-28	0
28654 FCPADS	DISTILL	1.	205.90	0.279 0.01	84.3	6.24	2.65	15.00	45.59	0.	-26.17	43.32	5.848	-146.	0	59
28654 FCMCDS	DISTILL	1.	1.00	0.012 0.01	9.0	0.67	0.28	0.62	9.27	0.	0.	10.84	1.463	-7.	-28	0
28654 FCMCDS	DISTILL	1.	162.88	0.360 0.01	72.3	5.36	2.28	11.26	33.26	0.	-20.67	31.48	4.250	-103.	0	60
28691 ONOCGN	COAL-FG	2.	0.	0. 0.04	12.0	0.91	0.39	0.81	0.	0.45	0.	2.57	1.000	0.	0	0
28691 PFBSTM	COAL-PF	2.	1.00	1.000 0.04	15.9	1.21	0.51	1.24	0.	0.	0.	2.96	1.151	-3.	0	877
28691 PFBSTM	COAL-PF	2.	4.01	1.000 0.04	16.0	1.21	0.52	1.24	0.	0.	-0.82	2.15	0.834	-1.	12	8
28691 TIHRSG	RESIDUA	2.	1.00	-1.274 0.04	14.0	1.04	0.44	0.74	1.04	0.	0.	3.26	1.269	-3.	0	58
28691 TIHRSG	COAL	2.	1.00	1.000 0.04	23.3	1.77	0.75	1.32	0.	0.	0.	3.83	1.491	-9.	0	96
28691 TIHRSG	COAL	2.	6.57	1.000 0.04	53.8	4.08	1.73	1.94	0.	0.	-1.52	6.24	2.426	-32.	0	451
28691 HEGT00	COAL-AF	2.	1.00	1.000 0.04	17.1	1.30	0.55	1.09	0.	0.	0.	2.94	1.143	-4.	0	999
28691 HEGT00	COAL-AF	2.	10.17	1.000 0.04	35.5	2.69	1.14	1.49	0.	0.	-2.50	2.83	1.099	-12.	4	15
28691 FCNCCL	COAL	2.	1.00	-9.257 0.04	18.0	1.40	0.59	1.13	2.73	0.	0.	5.85	2.276	-13.	0	58
28691 FCMCCL	COAL	2.	16.89	-0.053 0.04	39.9	3.10	1.32	2.06	4.73	0.	-4.34	6.87	2.672	-27.	0	71
28691 GTSOAR	RESIDUA	2.	1.00	-0.103 0.04	6.8	0.50	0.21	0.54	0.51	0.	0.	1.76	0.684	5.	999	0
28691 GTAC08	RESIDUA	2.	1.00	-0.185 0.04	6.5	0.48	0.20	0.53	0.54	0.	0.	1.76	0.684	5.	999	0
28691 GTAC12	RESIDUA	2.	1.00	-0.049 0.04	6.4	0.48	0.20	0.52	0.48	0.	0.	1.69	0.655	6.	999	0
28691 GTAC16	RESIDUA	2.	1.00	0.009 0.04	6.5	0.48	0.20	0.52	0.45	0.	0.	1.66	0.646	6.	999	0
28691 GTWC16	RESIDUA	2.	1.00	-0.016 0.04	6.7	0.50	0.21	0.53	0.47	0.	0.	1.70	0.662	5.	999	0
28691 GTSOAD	DISTILL	2.	1.00	-0.096 0.04	6.4	0.47	0.20	0.52	0.62	0.	0.	1.81	0.705	5.	999	0
28691 GTRA08	DISTILL	2.	1.00	0.104 0.04	6.8	0.50	0.21	0.53	0.50	0.	0.	1.75	0.682	5.	999	0
28691 GTRA12	DISTILL	2.	1.00	0.106 0.04	6.7	0.50	0.21	0.53	0.50	0.	0.	1.74	0.678	5.	999	0
28691 GTRA16	DISTILL	2.	1.00	0.083 0.04	6.9	0.51	0.22	0.53	0.52	0.	0.	1.77	0.689	5.	999	0
28691 GTR208	DISTILL	2.	1.00	-0.000 0.04	6.7	0.50	0.21	0.53	0.56	0.	0.	1.80	0.700	5.	999	0
28691 GTR212	DISTILL	2.	1.00	0.030 0.04	6.8	0.50	0.21	0.53	0.54	0.	0.	1.79	0.696	5.	999	0
28691 GTR216	DISTILL	2.	1.00	0.050 0.04	6.8	0.50	0.21	0.53	0.53	0.	0.	1.78	0.692	5.	999	0
28691 GTRW08	DISTILL	2.	1.00	0.088 0.04	6.9	0.51	0.22	0.53	0.51	0.	0.	1.77	0.688	5.	999	0
28691 GTRW12	DISTILL	2.	1.00	0.121 0.04	6.9	0.51	0.22	0.53	0.49	0.	0.	1.75	0.681	5.	999	0
28691 GTRW16	DISTILL	2.	1.00	0.104 0.04	7.0	0.52	0.22	0.53	0.50	0.	0.	1.78	0.690	5.	999	0
28691 GTR308	DISTILL	2.	1.00	-0.032 0.04	6.7	0.49	0.21	0.53	0.58	0.	0.	1.81	0.705	5.	999	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28691 GTR312	DISTILL	2.	1.00	0.064	0.04	6.8	0.50	0.21	0.53	0.53	0.	0.	1.78	0.691	5.	999	0
28691 GTR316	DISTILL	2.	1.00	0.056	0.04	6.9	0.51	0.22	0.53	0.53	0.	0.	1.79	0.697	5.	999	0
28691 FCPADS	DISTILL	2.	1.00	0.158	0.04	7.0	0.52	0.22	0.62	0.47	0.	0.	1.82	0.709	5.	999	0
28691 FCMCDS	DISTILL	2.	1.00	0.223	0.04	7.0	0.52	0.22	0.60	0.44	0.	0.	1.78	0.693	5.	999	0
28692 ONOCGN	COAL-FG	6.	0.	0.	0.13	13.0	0.99	0.42	0.87	2.94	1.73	0.	6.95	1.000	0.	0	0
28692 PFBSTM	COAL-PF	6.	0.83	0.116	0.13	16.2	1.23	0.52	1.29	3.33	0.29	0.	6.66	0.957	-1.	11	8
28692 TIHRSG	RESIDUA	6.	1.00	0.046	0.13	30.6	2.26	0.96	1.21	6.50	0.	0.	10.94	1.573	-21.	0	61
28692 TIHRSG	RESIDUA	6.	2.00	0.073	0.13	46.5	3.45	1.47	1.46	7.93	0.	-1.04	13.27	1.908	-35.	0	64
28692 TIHRSG	COAL	6.	1.00	0.046	0.13	43.4	3.29	1.40	1.95	3.78	0.	0.	10.41	1.497	-25.	0	90
28692 TIHRSG	COAL	6.	2.00	0.073	0.13	59.8	4.54	1.93	2.14	4.61	0.	-1.04	12.18	1.751	-39.	0	91
28692 HEGTOO	COAL-AF	6.	1.00	0.035	0.13	26.8	2.03	0.86	1.46	3.82	0.	0.	8.18	1.176	-10.	0	***
28692 HEGTOO	COAL-AF	6.	3.04	0.070	0.13	38.8	2.95	1.25	1.63	5.61	0.	-2.12	9.31	1.339	-20.	0	224
28692 FCMCCL	COAL	6.	1.00	0.135	0.13	25.8	2.01	0.85	1.52	3.43	0.	0.	7.80	1.122	-9.	0	999
28692 FCMCCL	COAL	6.	5.02	0.333	0.13	43.5	3.38	1.44	2.25	5.36	0.	-4.18	8.25	1.187	-19.	1	25
28692 GTSOAR	RESIDUA	6.	1.00	0.086	0.13	9.4	0.70	0.30	0.67	6.23	0.	0.	7.90	1.136	-1.	-19	0
28692 GTSOAR	RESIDUA	6.	6.61	0.233	0.13	17.9	1.32	0.56	0.80	12.75	0.	-5.84	9.59	1.380	-10.	0	57
28692 GTAC08	RESIDUA	6.	1.00	0.136	0.13	8.7	0.65	0.27	0.65	5.89	0.	0.	7.46	1.073	1.	-12	0
28692 GTAC08	RESIDUA	6.	4.06	0.309	0.13	11.9	0.89	0.38	0.60	8.41	0.	-3.19	7.09	1.019	0.	-11	0
28692 GTAC12	RESIDUA	6.	1.00	0.136	0.13	8.7	0.65	0.27	0.64	5.89	0.	0.	7.46	1.072	1.	-12	0
28692 GTAC12	RESIDUA	6.	5.01	0.336	0.13	13.8	1.02	0.44	0.66	9.17	0.	-4.17	7.12	1.024	-1.	0	54
28692 GTAC16	RESIDUA	6.	1.00	0.126	0.13	8.9	0.66	0.28	0.65	5.96	0.	0.	7.55	1.085	0.	-14	0
28692 GTAC16	RESIDUA	6.	6.00	0.332	0.13	16.3	1.21	0.51	0.73	10.39	0.	-5.20	7.63	1.098	-3.	0	60
28692 GTWC16	RESIDUA	6.	1.00	0.120	0.13	9.2	0.68	0.29	0.66	6.00	0.	0.	7.63	1.097	-0.	-15	0
28692 GTWC16	RESIDUA	6.	5.98	0.316	0.13	15.9	1.18	0.50	0.73	10.62	0.	-5.18	7.84	1.127	-4.	0	58
28692 GTSOAD	DISTILL	6.	1.00	0.126	0.13	8.5	0.63	0.27	0.64	7.31	0.	0.	8.84	1.272	-4.	-27	0
28692 GTSOAD	DISTILL	6.	4.95	0.309	0.13	12.6	0.93	0.40	0.63	11.62	0.	-4.11	9.46	1.360	-7.	148	0
28692 GTRA03	DISTILL	6.	1.00	0.081	0.13	9.5	0.71	0.30	0.67	7.68	0.	0.	9.35	1.345	-6.	-38	0
28692 GTRA03	DISTILL	6.	13.60	0.261	0.13	29.7	2.20	0.94	1.16	26.10	0.	-13.10	17.30	2.487	-40.	0	57
28692 GTRA12	DISTILL	6.	1.00	0.091	0.13	9.5	0.70	0.30	0.67	7.60	0.	0.	9.27	1.333	-5.	-37	0
28692 GTRA12	DISTILL	6.	11.69	0.284	0.13	27.5	2.04	0.87	1.09	22.37	0.	-11.12	15.25	2.192	-33.	0	57
28692 GTRA16	DISTILL	6.	1.00	0.096	0.13	9.8	0.72	0.31	0.67	7.56	0.	0.	9.26	1.332	-6.	-39	0
28692 GTRA16	DISTILL	6.	9.99	0.290	0.13	26.0	1.93	0.82	1.03	19.60	0.	-9.34	14.04	2.018	-28.	0	57
28692 GTR208	DISTILL	6.	1.00	0.102	0.13	9.3	0.69	0.29	0.66	7.51	0.	0.	9.14	1.315	-5.	-34	0
28692 GTR208	DISTILL	6.	7.30	0.285	0.13	18.6	1.38	0.59	0.82	15.63	0.	-6.55	11.86	1.706	-18.	0	56
28692 GTR212	DISTILL	6.	1.00	0.102	0.13	9.4	0.70	0.30	0.66	7.50	0.	0.	9.16	1.317	-5.	-35	0
28692 GTR212	DISTILL	6.	7.88	0.291	0.13	20.2	1.50	0.64	0.86	16.37	0.	-7.16	12.21	1.756	-20.	0	57
28692 GTR216	DISTILL	6.	1.00	0.104	0.13	9.5	0.71	0.30	0.67	7.49	0.	0.	9.16	1.318	-5.	-36	0
28692 GTR216	DISTILL	6.	8.21	0.299	0.13	21.8	1.61	0.69	0.90	16.69	0.	-7.50	12.39	1.782	-21.	0	57
28692 GTRW08	DISTILL	6.	1.00	0.072	0.13	9.6	0.71	0.30	0.67	7.76	0.	0.	9.45	1.358	-6.	-40	0
28692 GTRW08	DISTILL	6.	15.06	0.236	0.13	30.2	2.24	0.95	1.19	29.39	0.	-14.62	19.15	2.754	-46.	0	57
28692 GTRW12	DISTILL	6.	1.00	0.085	0.13	9.7	0.72	0.30	0.67	7.65	0.	0.	9.33	1.342	-6.	-39	0
28692 GTRW12	DISTILL	6.	13.70	0.275	0.13	28.3	2.10	0.89	1.13	25.80	0.	-13.21	16.70	2.401	-38.	0	57
28692 GTRW16	DISTILL	6.	1.00	0.091	0.13	9.9	0.73	0.31	0.67	7.60	0.	0.	9.31	1.339	-6.	-40	0
28692 GTRW16	DISTILL	6.	11.53	0.284	0.13	26.3	1.95	0.83	1.05	22.13	0.	-10.95	15.01	2.159	-31.	0	57

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28692 GTR308	DISTILL	6.	1.00	0.067 0.13	9.2	0.69	0.29	0.67	7.80	0.		9.44	1.358	-6.	-37	0
28692 GTR308	DISTILL	6.	9.90	0.202 0.13	22.2	1.64	0.70	0.95	21.89	0.	-9.26	15.92	2.289	-32.	0	56
28692 GTR312	DISTILL	6.	1.00	0.101 0.13	9.4	0.70	0.30	0.66	7.51	0.	0.	9.17	1.318	-5.	-35	0
28692 GTR312	DISTILL	6.	8.75	0.297 0.13	20.3	1.51	0.64	0.87	17.53	0.	-8.06	12.49	1.796	-21.	0	57
28692 GTR316	DISTILL	6.	1.00	0.101 0.13	9.7	0.71	0.30	0.67	7.51	0.	0.	9.20	1.323	-5.	-37	0
28692 GTR316	DISTILL	6.	8.56	0.295 0.13	20.9	1.55	0.66	0.89	17.30	0.	-7.86	12.53	1.802	-21.	0	57
28692 FCPADS	DISTILL	6.	1.00	0.084 0.13	9.8	0.73	0.31	1.09	7.66	0.	0.	9.79	1.408	-7.	-46	0
28692 FCPADS	DISTILL	6.	17.24	0.279 0.13	58.1	4.30	1.83	10.30	31.08	0.	-16.89	30.62	4.403	-96.	0	59
28692 FCMCDS	DISTILL	6.	1.00	0.112 0.13	10.1	0.75	0.32	1.06	7.42	0.	0.	9.54	1.372	-7.	-46	0
28692 FCMCDS	DISTILL	6.	13.64	0.360 0.13	50.1	3.71	1.58	7.74	22.68	0.	-13.14	22.57	3.245	-67.	0	60
28693 ONOCGN	COAL-FG	4.	0.	0. 0.04	22.7	1.72	0.73	1.38	6.18	1.09	0.	11.12	1.000	0.	0	0
28693 STM141	RESIDUA	4.	1.00	0.059 0.04	13.7	1.04	0.44	0.96	11.07	0.	0.	13.51	1.214	-3.	-20	0
28693 STM141	RESIDUA	4.	5.17	0.217 0.04	15.6	1.19	0.50	0.86	12.80	0.	-2.74	12.61	1.134	-1.	-17	0
28693 STM141	COAL-FG	4.	1.00	0.059 0.04	28.6	2.17	0.92	1.94	6.43	0.	0.	11.46	1.031	-4.	0	999
28693 STM141	COAL-FG	4.	5.17	0.217 0.04	29.1	2.21	0.94	1.75	7.43	0.	-2.74	9.59	0.862	2.	19	5
28693 STM141	COAL-AF	4.	1.00	0.059 0.04	26.9	2.04	0.87	1.85	6.43	0.	0.	11.19	1.006	-2.	4	17
28693 STM141	COAL-AF	4.	5.17	0.217 0.04	20.7	1.57	0.67	1.57	7.43	0.	-2.74	8.50	0.765	9.	999	0
28693 STM088	RESIDUA	4.	1.00	0.059 0.04	12.2	0.93	0.39	0.94	11.07	0.	0.	13.33	1.199	-2.	-17	0
28693 STM088	RESIDUA	4.	3.61	0.170 0.04	13.9	1.06	0.45	0.82	12.15	0.	-1.71	12.76	1.147	-1.	-16	0
28693 STM088	COAL-FG	4.	1.00	0.059 0.04	28.9	2.19	0.93	1.96	6.43	0.	0.	11.51	1.035	-4.	0	999
28693 STM088	COAL-FG	4.	3.61	0.170 0.04	26.9	2.04	0.87	1.64	7.05	0.	-1.71	9.89	0.890	2.	22	5
28693 STM088	COAL-AF	4.	1.00	0.059 0.04	26.7	2.03	0.86	1.88	6.43	0.	0.	11.19	1.007	-2.	3	17
28693 STM088	COAL-AF	4.	3.61	0.170 0.04	19.6	1.49	0.63	1.51	7.05	0.	-1.71	8.97	0.807	8.	999	0
28693 PFBSTM	COAL-PF	4.	1.00	0.057 0.04	27.9	2.12	0.90	1.92	6.44	0.	0.	11.37	1.023	-3.	0	28
28693 PFBSTM	COAL-PF	4.	8.79	0.290 0.04	35.0	2.66	1.13	2.65	8.39	0.	-5.12	9.71	0.874	-2.	12	8
28693 TISTMT	RESIDUA	4.	1.00	0.058 0.04	25.0	1.90	0.81	1.21	11.08	0.	0.	15.00	1.349	-13.	0	56
28693 TISTMT	RESIDUA	4.	10.70	0.322 0.04	81.2	6.16	2.62	2.71	15.22	0.	-6.37	20.34	1.829	-57.	0	68
28693 TISTMT	COAL	4.	1.00	0.058 0.04	36.9	2.80	1.19	2.09	6.43	0.	0.	12.51	1.125	-11.	0	169
28693 TISTMT	COAL	4.	11.89	0.338 0.04	109.0	8.27	3.52	3.82	9.13	0.	-7.16	17.58	1.581	-62.	0	999
28693 TIHRSG	RESIDUA	4.	1.00	0.043 0.04	27.6	2.04	0.87	1.22	11.25	0.	0.	15.38	1.383	-15.	0	56
28693 TIHRSG	RESIDUA	4.	5.59	0.166 0.04	72.9	5.40	2.30	2.36	14.02	0.	-3.01	21.06	1.894	-54.	0	63
28693 TIHRSG	COAL	4.	1.00	0.043 0.04	43.7	3.32	1.41	2.21	6.53	0.	0.	13.48	1.212	-18.	0	94
28693 TIHRSG	COAL	4.	6.21	0.178 0.04	98.7	7.49	3.19	3.40	8.36	0.	-3.42	19.02	1.710	-61.	0	105
28693 STIRL	DISTILL	4.	1.00	0.042 0.04	18.2	1.34	0.57	0.99	13.81	0.	0.	16.72	1.503	-15.	-59	0
28693 STIRL	DISTILL	4.	13.54	0.259 0.04	37.2	2.76	1.17	1.59	23.26	0.	-8.24	20.54	1.847	-36.	0	57
28693 STIRL	RESIDUA	4.	1.00	0.042 0.04	18.2	1.35	0.57	0.99	11.27	0.	0.	14.17	1.275	-7.	-36	0
28693 STIRL	RESIDUA	4.	13.54	0.259 0.04	37.3	2.76	1.17	1.59	18.98	0.	-8.24	16.26	1.462	-23.	0	59
28693 STIRL	COAL	4.	1.00	0.042 0.04	28.8	2.13	0.91	1.82	6.54	0.	0.	11.40	1.025	-3.	0	30
28693 STIRL	COAL	4.	15.05	0.270 0.04	68.8	5.10	2.17	2.92	11.55	0.	-9.23	12.51	1.125	-26.	2	20
28693 HEGT85	COAL-AF	4.	1.00	0.013 0.04	32.6	2.47	1.05	1.82	6.73	0.	0.	12.08	1.086	-8.	0	165
28693 HEGT85	COAL-AF	4.	77.36	0.126 0.04	269.1	20.42	8.68	10.24	48.71	0.	-50.16	37.91	3.409	-202.	0	99
28693 HEGT60	COAL-AF	4.	1.00	0.018 0.04	32.3	2.45	1.04	1.82	6.71	0.	0.	12.02	1.081	-7.	0	240
28693 HEGT60	COAL-AF	4.	25.39	0.135 0.04	121.0	9.18	3.90	4.69	19.41	0.	-16.02	21.17	1.904	-79.	0	116
28693 HEGT00	COAL-AF	4.	1.00	0.021 0.04	31.9	2.42	1.03	1.83	6.68	0.	0.	11.96	1.075	-7.	0	445

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM		SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	RESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	O&NDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28693	HEGT00	COAL-AF	4.	10.27	0.117	0.04	66.3	5.03	2.14	2.78	11.27	0.	-6.09	15.14	1.361	-34.	0	219
28693	FCNCCL	COAL	4.	1.00	-0.051	0.04	34.3	2.67	1.13	1.94	7.17	0.	0.	12.91	1.161	-12.	0	73
28693	FCNCCL	COAL	4.	18.30	0.311	0.04	79.4	6.17	2.62	4.28	12.34	0.	-11.36	14.05	1.264	-37.	0	30
28693	FCSTCL	COAL	4.	1.00	-0.049	0.04	33.7	2.62	1.11	1.97	7.16	0.	0.	12.87	1.157	-11.	0	73
28693	FCSTCL	COAL	4.	26.65	0.376	0.04	94.2	7.33	3.11	5.13	14.51	0.	-16.85	13.23	1.190	-42.	2	20
28693	IGGTST	COAL	4.	1.00	-0.060	0.04	32.8	2.55	1.08	1.96	7.23	0.	0.	12.82	1.153	-11.	0	70
28693	IGGTST	COAL	4.	18.33	0.246	0.04	72.7	5.65	2.40	2.64	13.52	0.	-11.38	12.83	1.153	-30.	2	21
28693	GTSOAR	RESIDUA	4.	1.00	0.042	0.04	17.3	1.28	0.55	0.93	11.26	0.	0.	14.02	1.261	-6.	-31	0
28693	GTSOAR	RESIDUA	4.	17.54	0.288	0.04	28.5	2.11	0.90	1.30	21.35	0.	-10.86	14.80	1.331	-14.	0	57
28693	GTAC08	RESIDUA	4.	1.00	0.050	0.04	16.8	1.25	0.53	0.92	11.17	0.	0.	13.87	1.247	-6.	-28	0
28693	GTAC08	RESIDUA	4.	13.46	0.310	0.04	22.5	1.67	0.71	1.13	17.59	0.	-8.18	12.92	1.162	-5.	118	0
28693	GTAC12	RESIDUA	4.	1.00	0.049	0.04	16.8	1.25	0.53	0.92	11.18	0.	0.	13.87	1.247	-6.	-28	0
28693	GTAC12	RESIDUA	4.	16.85	0.333	0.04	26.5	1.96	0.83	1.24	19.50	0.	-10.41	13.13	1.181	-8.	0	57
28693	GTAC16	RESIDUA	4.	1.00	0.048	0.04	16.9	1.25	0.53	0.92	11.19	0.	0.	13.89	1.249	-6.	-29	0
28693	GTAC16	RESIDUA	4.	19.15	0.341	0.04	30.1	2.23	0.95	1.34	20.93	0.	-11.92	13.52	1.216	-11.	0	58
28693	GTWC16	RESIDUA	4.	1.00	0.044	0.04	17.2	1.27	0.54	0.93	11.24	0.	0.	13.98	1.257	-6.	-30	0
28693	GTWC16	RESIDUA	4.	19.96	0.315	0.04	29.1	2.15	0.92	1.33	22.37	0.	-12.46	14.31	1.287	-13.	0	57
28693	CC1626	RESIDUA	4.	1.00	0.043	0.04	16.9	1.29	0.55	0.99	11.25	0.	0.	14.07	1.265	-6.	-32	0
28693	CC1626	RESIDUA	4.	30.31	0.348	0.04	37.5	2.85	1.21	1.72	28.73	0.	-19.25	15.26	1.372	-20.	0	80
28693	CC1622	RESIDUA	4.	1.00	0.045	0.04	16.7	1.27	0.54	0.98	11.22	0.	0.	14.01	1.260	-6.	-30	0
28693	CC1622	RESIDUA	4.	27.24	0.356	0.04	37.4	2.84	1.21	1.69	26.21	0.	-17.23	14.70	1.322	-18.	0	61
28693	CC1222	RESIDUA	4.	1.00	0.046	0.04	16.6	1.26	0.54	0.98	11.22	0.	0.	13.99	1.258	-6.	-30	0
28693	CC1222	RESIDUA	4.	27.08	0.359	0.04	35.5	2.70	1.15	1.65	25.98	0.	-17.13	14.34	1.290	-16.	0	61
28693	CC0822	RESIDUA	4.	1.00	0.049	0.04	16.8	1.27	0.54	0.99	11.18	0.	0.	13.98	1.257	-6.	-30	0
28693	CC0822	RESIDUA	4.	21.43	0.360	0.04	29.7	2.26	0.96	1.47	21.95	0.	-13.42	13.22	1.189	-10.	0	60
28693	STIG15	RESIDUA	4.	1.00	0.016	0.04	16.9	1.25	0.53	0.94	11.56	0.	0.	14.29	1.285	-7.	-32	0
28693	STIG15	RESIDUA	4.	751.59	0.171	0.04	671.0	49.70	21.13	39.66	696.39	0.	-493.01	314.07	28.243	-1256.	0	58
28693	STIG10	RESIDUA	4.	1.00	0.023	0.04	16.7	1.24	0.53	0.93	11.48	0.	0.	14.17	1.275	-6	-30	0
28693	STIG10	RESIDUA	4.	69.50	0.218	0.04	75.9	5.62	2.39	4.04	68.32	0.	-44.99	35.33	3.182	-101.	0	58
28693	STIG15	RESIDUA	4.	1.00	0.026	0.04	16.6	1.23	0.52	0.93	11.44	0.	0.	14.13	1.271	-6.	-30	0
28693	STIG1S	RESIDUA	4.	40.78	0.228	0.04	47.1	3.48	1.48	2.73	42.95	0.	-26.13	24.51	2.204	-53.	0	58
28693	DEADV3	RESIDUA	4.	1.00	0.032	0.04	20.1	1.49	0.63	1.02	11.37	0.	0.	14.51	1.305	-9.	-57	0
28693	DEADV3	RESIDUA	4.	46.41	0.286	0.04	111.5	8.26	3.51	3.62	44.17	0.	-29.83	29.72	2.673	-100.	0	63
28693	DEHTFM	RESIDUA	4.	1.00	0.048	0.04	20.2	1.50	0.64	1.06	11.19	0.	0.	14.38	1.293	-9.	-58	0
28693	DEHTFM	RESIDUA	4.	19.57	0.345	0.04	56.8	4.20	1.79	2.18	21.13	0.	-12.20	17.10	1.538	-34.	0	65
28693	DESOA3	DISTILL	4.	1.00	0.027	0.04	19.1	1.41	0.60	1.00	14.01	0.	0.	17.02	1.531	-16.	-73	0
28693	DESOA3	DISTILL	4.	54.14	0.248	0.04	159.8	11.84	5.03	4.87	64.90	0.	-34.91	51.74	4.652	-191.	0	60
28693	DESOA3	RESIDUA	4.	1.00	0.027	0.04	19.1	1.41	0.60	1.00	11.43	0.	0.	14.44	1.299	-8.	-45	0
28693	DESOA3	RESIDUA	4.	54.14	0.248	0.04	159.8	11.84	5.03	4.87	52.95	0.	-34.91	39.78	3.577	-154.	0	63
28693	GTSOAD	DISTILL	4.	1.00	0.047	0.04	16.7	1.23	0.52	0.92	13.73	0.	0.	16.41	1.475	-13.	-46	0
28693	GTSOAD	DISTILL	4.	16.26	0.312	0.04	23.6	1.75	0.74	1.17	24.09	0.	-10.02	17.73	1.594	-21.	0	55
28693	GTRA08	DISTILL	4.	1.00	0.043	0.04	17.4	1.29	0.55	0.93	13.79	0.	0.	16.56	1.489	-14.	-52	0
28693	GTRA08	DISTILL	4.	27.23	0.338	0.04	40.7	3.01	1.28	1.64	33.00	0.	-17.23	21.71	1.952	-41.	0	57
28693	GTRA12	DISTILL	4.	1.00	0.044	0.04	17.4	1.29	0.55	0.92	13.77	0.	0.	16.53	1.487	-14.	-51	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
						********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********									
28693 GTRA12	DISTILL	4.	26.52	0.345 0.04	38.8	2.88	1.22	1.59	32.05	0.	-16.76	20.99	1.887	-38.	0 57
28693 GTRA16	DISTILL	4.	1.00	0.044 0.04	17.6	1.30	0.55	0.93	13.77	0.	0.	16.55	1.488	-14.	-52 0
28693 GTRA16	DISTILL	4.	24.70	0.341 0.04	39.0	2.89	1.23	1.59	30.62	0.	-15.57	20.76	1.867	-38.	0 57
28693 GTR208	DISTILL	4.	1.00	0.044 0.04	17.2	1.27	0.54	0.92	13.77	0.	0.	16.51	1.484	-14.	-50 0
28693 GTR208	DISTILL	4.	20.41	0.321 0.04	30.8	2.28	0.97	1.37	27.60	0.	-12.75	19.47	1.750	-30.	0 56
28693 GTR212	DISTILL	4.	1.00	0.044 0.04	17.3	1.28	0.54	0.93	13.77	0.	0.	16.52	1.486	-14.	-50 0
28693 GTR212	DISTILL	4.	21.89	0.327 0.04	33.1	2.45	1.04	1.43	28.70	0.	-13.72	19.90	1.790	-32.	0 57
28693 GTR216	DISTILL	4.	1.00	0.045 0.04	17.4	1.29	0.55	0.93	13.76	0.	0.	16.52	1.485	-14.	-51 0
28693 GTR216	DISTILL	4.	22.44	0.336 0.04	35.3	2.61	1.11	1.49	28.82	0.	-14.09	19.95	1.794	-33.	0 57
28693 GTRW08	DISTILL	4.	1.00	0.036 0.04	17.5	1.30	0.55	0.93	13.89	0.	0.	16.67	1.499	-15.	-53 0
28693 GTRW08	DISTILL	4.	32.45	0.297 0.04	40.5	3.00	1.27	1.67	40.01	0.	-20.66	25.29	2.275	-52.	0 57
28693 GTRW12	DISTILL	4.	1.00	0.039 0.04	17.5	1.30	0.55	0.93	13.85	0.	0.	16.63	1.495	-15.	-53 0
28693 GTRW12	DISTILL	4.	32.93	0.320 0.04	40.7	3.02	1.28	1.68	39.15	0.	-20.97	24.85	2.171	-49.	0 57
28693 GTRW16	DISTILL	4.	1.00	0.039 0.04	17.7	1.31	0.56	0.93	13.84	0.	0.	16.64	1.496	-15.	-54 0
28693 GTRW16	DISTILL	4.	30.46	0.319 0.04	40.2	2.98	1.27	1.65	36.92	0.	-19.35	23.47	2.111	-47.	0 57
28693 GTR308	DISTILL	4.	1.00	0.034 0.04	17.2	1.28	0.54	0.93	13.92	0.	0.	16.67	1.499	-15.	-51 0
28693 GTR308	DISTILL	4.	24.78	0.257 0.04	33.6	2.49	1.06	1.48	34.59	0.	-15.62	24.00	2.158	-45.	0 56
28693 GTR312	DISTILL	4.	1.00	0.040 0.04	17.3	1.28	0.55	0.93	13.83	0.	0.	16.58	1.491	-14.	-51 0
28693 GTR312	DISTILL	4.	26.46	0.314 0.04	34.4	2.55	1.08	1.49	33.48	0.	-16.72	21.88	1.968	-39.	0 57
28693 GTR316	DISTILL	4.	1.00	0.040 0.04	17.5	1.30	0.55	0.93	13.83	0.	0.	16.61	1.493	-14.	-52 0
28693 GTR316	DISTILL	4.	26.05	0.311 0.04	35.4	2.62	1.11	1.51	33.25	0.	-16.45	22.05	1.983	-40.	0 57
28693 FCPADS	DISTILL	4.	1.00	0.031 0.04	18.4	1.36	0.58	1.20	13.97	0.	0.	17.10	1.538	-16.	-65 0
28693 FCPADS	DISTILL	4.	57.32	0.279 0.04	121.2	8.98	3.82	21.59	65.28	0.	-36.99	62.67	5.635	-210.	0 59
28693 FCMCDS	DISTILL	4.	1.00	0.041 0.04	18.5	1.37	0.58	1.17	13.82	0.	0.	16.95	1.524	-16.	-65 0
28693 FCMCDS	DISTILL	4.	45.35	0.360 0.04	104.5	7.74	3.29	16.25	47.63	0.	-29.13	45.76	4.117	-149.	0 60
28694 ONOCGN	COAL-FG	3.	0.	0. 0.03	24.8	1.88	0.80	1.50	6.68	1.00	0.	11.86	1.000	0.	0 0
28694 STM141	RESIDUA	3.	1.00	0.050 0.03	14.7	1.12	0.47	1.03	11.88	0.	0.	14.50	1.223	-3.	-20 0
28694 STM141	RESIDUA	3.	3.49	0.146 0.03	15.0	1.14	0.49	0.86	12.82	0.	-1.50	13.81	1.165	-1.	-17 0
28694 STM141	COAL-FG	3.	1.00	0.050 0.03	31.6	2.40	1.02	2.11	6.90	0.	0.	12.42	1.048	-5.	0 999
28694 STM141	COAL-FG	3.	3.49	0.146 0.03	29.1	2.21	0.94	1.78	7.45	0.	-1.50	10.87	0.917	1.	18 5
28694 STM141	COAL-AF	3.	1.00	0.050 0.03	28.8	2.18	0.93	2.01	6.90	0.	0.	12.02	1.013	-2.	1 24
28694 STM141	COAL-AF	3.	3.49	0.146 0.03	20.3	1.54	0.65	1.59	7.45	0.	-1.50	9.73	0.821	9.	999 0
28694 PFBSTM	COAL-PF	3.	1.00	0.048 0.03	30.2	2.29	0.97	2.07	6.91	0.	0.	12.24	1.033	-4.	0 999
28694 PFBSTM	COAL-PF	3.	7.81	0.242 0.03	35.3	2.68	1.14	2.76	8.54	0.	-4.10	11.02	0.929	-3.	10 9
28694 TISTMT	RESIDUA	3.	1.00	0.049 0.03	26.8	2.03	0.86	1.28	11.89	0.	0.	16.06	1.355	-14.	0 56
28694 TISTMT	RESIDUA	3.	9.55	0.279 0.03	80.8	6.13	2.61	2.73	15.26	0.	-5.15	21.59	1.820	-57.	0 66
28694 TISTMT	COAL	3.	1.00	0.049 0.03	39.9	3.02	1.29	2.23	6.90	0.	0.	13.45	1.134	-12.	0 116
28694 TISTMT	COAL	3.	11.24	0.304 0.03	112.6	8.55	3.63	3.95	9.25	0.	-6.16	19.21	1.620	-65.	0 999
28694 TIHRSG	RESIDUA	3.	1.00	0.029 0.03	30.3	2.25	0.95	1.30	12.14	0.	0.	16.65	1.404	-17.	0 56
28694 TIHRSG	RESIDUA	3.	6.96	0.136 0.03	81.1	6.00	2.55	2.61	16.01	0.	-3.59	23.59	1.989	-63.	0 62
28694 TIHRSG	COAL	3.	1.00	0.029 0.03	44.4	3.37	1.43	2.29	7.05	0.	0.	14.14	1.193	-17.	0 89
28694 TIHRSG	COAL	3.	8.19	0.150 0.03	113.8	8.63	3.67	3.89	9.76	0.	-4.33	21.62	1.823	-73.	0 93
28694 STIRL	DISTILL	3.	1.00	0.034 0.03	19.5	1.45	0.62	1.04	14.81	0.	0.	17.91	1.511	-16.	-56 0
28694 STIRL	DISTILL	3.	13.70	0.231 0.03	38.9	2.88	1.22	1.66	23.89	0.	-7.65	22.01	1.856	-38.	0 57

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	O&NDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
						********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********											
28694 STIRL	RESIDUA	3.	1.00	0.034	0.03	19.5	1.45	0.62	1.04	12.08	0.	0.	15.18	1.281	-8.	-35	0
28694 STIRL	RESIDUA	3.	13.70	0.231	0.03	38.9	2.88	1.23	1.66	19.49	0.	-7.65	17.62	1.486	-24.	0	58
28694 STIRL	COAL	3.	1.00	0.034	0.03	31.2	2.31	0.98	1.94	7.01	0.	0.	12.25	1.033	-4.	0	999
28694 STIRL	COAL	3.	16.12	0.248	0.03	73.5	5.45	2.31	3.09	12.14	0.	-9.10	13.89	1.171	-29.	0	26
28694 HEGTGO	COAL-AF	3.	1.00	0.003	0.03	33.6	2.55	1.08	1.91	7.24	0.	0.	12.79	1.078	-7.	0	113
28694 HEGTGO	COAL-AF	3.	49.08	0.030	0.03	181.3	13.76	5.85	7.19	34.43	0.	-28.95	32.28	2.723	-139.	0	77
28694 HEGTOO	COAL-AF	3.	1.00	0.015	0.03	33.2	2.52	1.07	1.92	7.15	0.	0.	12.66	1.068	-7.	0	203
28694 HEGTOO	COAL-AF	3.	13.35	0.099	0.03	75.1	5.70	2.42	3.15	13.07	0.	-7.43	16.92	1.426	-40.	0	122
28694 FCHCCL	COAL	3.	1.00	-0.119	0.03	36.3	2.82	1.20	2.04	8.13	0.	0.	14.19	1.197	-13.	0	65
28694 FCMCCL	COAL	3.	22.93	0.296	0.03	87.8	6.82	2.90	4.78	14.17	0.	-13.20	15.47	1.305	-43.	0	999
28694 FCSTCL	COAL	3.	1.00	-0.118	0.03	36.0	2.80	1.19	2.09	8.12	0.	0.	14.20	1.197	-13.	0	65
28694 FCSTCL	COAL	3.	28.51	0.340	0.03	97.0	7.54	3.20	5.35	15.44	0.	-16.57	14.97	1.262	-46.	1	25
28694 IGGTST	COAL	3.	1.00	-0.129	0.03	35.0	2.72	1.16	2.07	8.20	0.	0.	14.15	1.193	-13.	0	54
28694 IGGTST	COAL	3.	18.75	0.188	0.03	74.2	5.77	2.45	2.69	14.36	0.	-10.69	14.59	1.231	-33.	0	999
28694 GTSOAR	RESIDUA	3.	1.00	0.033	0.03	18.3	1.36	0.58	0.97	12.10	0.	0.	15.00	1.265	-6.	-29	0
28694 GTSOAR	RESIDUA	3.	22.28	0.269	0.03	34.5	2.55	1.09	1.51	24.86	0.	-12.81	17.19	1.450	-21.	0	57
28694 GTAC08	RESIDUA	3.	1.00	0.043	0.03	17.9	1.32	0.56	0.96	11.97	0.	0.	14.81	1.249	-6.	-27	0
28694 GTAC08	RESIDUA	3.	15.80	0.311	0.03	24.5	1.82	0.77	1.22	18.94	0.	-8.91	13.83	1.167	-6.	106	0
28694 GTAC12	RESIDUA	3.	1.00	0.042	0.03	17.8	1.32	0.56	0.95	11.98	0.	0.	14.82	1.249	-6.	-27	0
28694 GTAC12	RESIDUA	3.	19.90	0.332	0.03	28.8	2.14	0.91	1.34	21.11	0.	-11.38	14.12	1.191	-9.	0	57
28694 GTAC16	RESIDUA	3.	1.00	0.041	0.03	17.9	1.33	0.56	0.95	12.00	0.	0.	14.85	1.252	-6.	-27	0
28694 GTAC16	RESIDUA	3.	23.06	0.336	0.03	33.0	2.45	1.04	1.46	23.11	0.	-13.28	14.77	1.246	-13.	0	58
28694 GTWC16	RESIDUA	3.	1.00	0.038	0.03	18.2	1.35	0.57	0.96	12.03	0.	0.	14.92	1.258	-6.	-28	0
28694 GTWC16	RESIDUA	3.	23.46	0.316	0.03	31.4	2.32	0.99	1.43	24.10	0.	-13.52	15.32	1.292	-14.	0	57
28694 DEHTPM	RESIDUA	3.	1.00	0.036	0.03	21.8	1.62	0.69	1.12	12.06	0.	0.	15.47	1.305	-10.	-54	0
28694 DEHTPM	RESIDUA	3.	20.14	0.286	0.03	62.3	4.62	1.96	2.36	22.76	0.	-11.52	20.18	1.702	-43.	0	62
28694 GTSOAD	DISTILL	3.	1.00	0.040	0.03	17.7	1.31	0.56	0.95	14.72	0.	0.	17.54	1.480	-14.	-43	0
28694 GTSOAD	DISTILL	3.	19.41	0.309	0.03	25.9	1.92	0.81	1.27	26.37	0.	-11.09	19.29	1.627	-23.	0	56
28694 GTRA08	DISTILL	3.	1.00	0.033	0.03	18.4	1.37	0.58	0.96	14.82	0.	0.	17.73	1.495	-15.	-48	0
28694 GTRA08	DISTILL	3.	37.10	0.314	0.03	47.9	3.54	1.51	1.89	41.23	0.	-21.74	26.43	2.229	-56.	0	57
28694 GTRA12	DISTILL	3.	1.00	0.035	0.03	18.3	1.36	0.58	0.96	14.80	0.	0.	17.69	1.492	-15.	-47	0
28694 GTRA12	DISTILL	3.	35.06	0.325	0.03	47.4	3.51	1.49	1.87	38.87	0.	-20.52	25.23	2.127	-52.	0	57
28694 GTRA16	DISTILL	3.	1.00	0.035	0.03	18.5	1.37	0.58	0.97	14.79	0.	0.	17.71	1.493	-15.	-48	0
28694 GTRA16	DISTILL	3.	31.96	0.324	0.03	46.9	3.47	1.48	1.85	36.33	0.	-18.64	24.48	2.065	-50.	0	57
28694 GTR208	DISTILL	3.	1.00	0.036	0.03	18.2	1.35	0.57	0.96	14.78	0.	0.	17.66	1.489	-15.	-46	0
28694 GTR208	DISTILL	3.	25.56	0.303	0.03	36.8	2.72	1.16	1.57	31.69	0.	-14.79	22.36	1.885	-38.	0	57
28694 GTR212	DISTILL	3.	1.00	0.036	0.03	18.3	1.35	0.58	0.96	14.78	0.	0.	17.67	1.490	-15.	-46	0
28694 GTR212	DISTILL	3.	27.44	0.314	0.03	39.4	2.91	1.24	1.64	32.99	0.	-15.92	22.86	1.928	-41.	0	57
28694 GTR216	DISTILL	3.	1.00	0.037	0.03	18.3	1.36	0.58	0.96	14.77	0.	0.	17.67	1.490	-15.	-47	0
28694 GTR216	DISTILL	3.	28.26	0.323	0.03	42.0	3.11	1.32	1.71	33.26	0.	-16.41	23.00	1.939	-43.	0	57
28694 GTRW08	DISTILL	3.	1.00	0.028	0.03	18.5	1.37	0.58	0.97	14.90	0.	0.	17.81	1.502	-15.	-48	0
28694 GTRW08	DISTILL	3.	43.47	0.277	0.03	49.3	3.65	1.55	1.96	49.12	0.	-25.57	30.72	2.590	-70.	0	57
28694 GTRW12	DISTILL	3.	1.00	0.031	0.03	18.5	1.37	0.58	0.96	14.85	0.	0.	17.77	1.493	-15.	-48	0
28694 GTRW12	DISTILL	3.	42.93	0.305	0.03	48.8	3.61	1.54	1.94	46.78	0.	-25.24	28.62	2.414	-63.	0	57

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28694 GTRW16	DISTILL	3.	1.00	0.032	0.03	18.6	1.38	0.59	0.97	14.84	0.	0.	17.77	1.499	-15.	-49	0
28694 GTRW16	DISTILL	3.	38.72	0.307	0.03	47.5	3.52	1.50	1.89	43.03	0.	-22.71	27.22	2.296	-58.	0	57
28694 GTR308	DISTILL	3.	1.00	0.026	0.03	18.2	1.35	0.57	0.96	14.94	0.	0.	17.82	1.503	-15.	-47	0
28694 GTR308	DISTILL	3.	32.45	0.236	0.03	38.6	2.86	1.22	1.67	41.52	0.	-18.93	28.33	2.389	-58.	0	56
28694 GTR312	DISTILL	3.	1.00	0.034	0.03	18.3	1.36	0.58	0.96	14.82	0.	0.	17.71	1.494	-15.	-47	0
28694 GTR312	DISTILL	3.	32.36	0.308	0.03	40.1	2.97	1.26	1.68	37.53	0.	-18.88	24.57	2.072	-47.	0	57
28694 GTR316	DISTILL	3.	1.00	0.033	0.03	18.5	1.37	0.58	0.97	14.82	0.	0.	17.73	1.496	-15.	-48	0
28694 GTR316	DISTILL	3.	31.80	0.305	0.03	41.1	3.05	1.30	1.71	37.21	0.	-18.54	24.72	2.084	-48.	0	57
28694 FCPADS	DISTILL	3.	1.00	0.026	0.03	19.6	1.45	0.62	1.21	14.93	0.	0.	18.21	1.536	-17.	-59	0
28694 FCPADS	DISTILL	3.	67.50	0.279	0.03	131.4	9.73	4.14	23.32	70.46	0.	-40.04	67.61	5.701	-227.	0	59
28694 FCMCDS	DISTILL	3.	1.00	0.035	0.03	19.7	1.46	0.62	1.19	14.79	0.	0.	18.07	1.524	-17.	-59	0
28694 FCMCDS	DISTILL	3.	53.39	0.360	0.03	113.4	8.40	3.57	17.56	51.41	0.	-31.55	49.38	4.165	-161.	0	60
28731 ONOCON	COAL-FG	4.	0.	0.	0.02	42.0	3.19	1.36	2.22	13.36	1.13	0.	21.26	1.000	0.	0	0
28731 PFBSTM	COAL-PF	4.	1.00	0.026	0.02	40.2	3.05	1.30	2.77	13.66	0.	0.	20.78	0.978	2.	999	0
28731 PFBSTM	COAL-PF	4.	6.36	0.132	0.02	42.3	3.21	1.37	3.72	15.25	0.	-3.64	19.92	0.937	4.	178	1
28731 TIHRSG	RESIDUA	4.	1.00	0.009	0.02	34.9	2.58	1.10	1.49	23.94	0.	0.	29.11	1.369	-21.	-53	0
28731 TIHRSG	RESIDUA	4.	13.87	0.073	0.02	138.6	10.26	4.36	3.96	35.98	0.	-8.74	45.83	2.156	-122.	0	61
28731 TIHRSG	COAL	4.	1.00	0.009	0.02	61.6	4.67	1.99	3.03	13.90	0.	0.	23.59	1.110	-17.	0	86
28731 TIHRSG	COAL	4.	13.87	0.073	0.02	176.4	13.38	5.69	5.95	20.89	0.	-8.74	37.18	1.749	-114.	0	84
28731 NEGTOO	COAL-AF	4.	1.00	0.006	0.02	49.7	3.77	1.60	2.64	13.93	0.	0.	21.94	1.032	-6.	0	999
28731 NEGTOO	COAL-AF	4.	21.13	0.070	0.02	108.4	8.23	3.50	4.71	25.44	0.	-13.67	28.21	1.327	-54.	0	110
28731 FCMCCL	COAL	4.	1.00	0.025	0.02	55.5	4.31	1.83	2.83	13.67	0.	0.	22.65	1.066	-12.	0	207
28731 FCHCCL	COAL	4.	34.90	0.333	0.02	124.5	9.68	4.11	7.25	24.33	0.	-23.02	22.35	1.052	-45.	4	16
28731 GTSOAR	RESIDUA	4.	1.00	0.016	0.02	26.8	1.98	0.84	1.25	23.77	0.	0.	27.84	1.310	-13.	-27	0
28731 GTSOAR	RESIDUA	4.	45.96	0.233	0.02	63.6	4.71	2.00	2.18	57.83	0.	-30.53	36.20	1.703	-56.	0	57
28731 GTAC08	RESIDUA	4.	1.00	0.025	0.02	26.3	1.95	0.83	1.24	23.55	0.	0.	27.56	1.296	-12.	-26	0
28731 GTAC08	RESIDUA	4.	28.23	0.309	0.02	38.4	2.84	1.21	1.47	38.16	0.	-18.49	25.19	1.185	-10.	-47	0
28731 GTAC12	RESIDUA	4.	1.00	0.025	0.02	26.3	1.94	0.83	1.23	23.54	0.	0.	27.54	1.296	-12.	-26	0
28731 GTAC12	RESIDUA	4.	34.79	0.336	0.02	45.5	3.37	1.43	1.66	41.62	0.	-22.94	25.15	1.183	-13.	0	56
28731 GTAC16	RESIDUA	4.	1.00	0.023	0.02	26.4	1.95	0.83	1.23	23.59	0.	0.	27.60	1.298	-12.	-26	0
28731 GTAC16	RESIDUA	4.	41.71	0.332	0.02	57.6	4.27	1.81	1.99	47.12	0.	-27.64	27.55	1.296	-26.	0	58
28731 GTWC16	RESIDUA	4.	1.00	0.022	0.02	26.6	1.97	0.84	1.24	23.61	0.	0.	27.66	1.301	-12.	-27	0
28731 GTWC16	RESIDUA	4.	41.56	0.316	0.02	48.6	3.60	1.53	1.77	48.17	0.	-27.55	27.51	1.294	-22.	0	56
28731 GTSOAD	DISTILL	4.	1.00	0.023	0.02	26.1	1.93	0.82	1.23	28.92	0.	0.	32.90	1.548	-28.	-41	0
28731 GTSOAD	DISTILL	4.	34.40	0.309	0.02	43.3	3.21	1.36	1.61	52.70	0.	-22.68	36.21	1.703	-47.	0	55
28731 GTRA08	DISTILL	4.	1.00	0.015	0.02	26.8	1.98	0.84	1.24	29.16	0.	0.	33.23	1.563	-30.	-43	0
28731 GTRA08	DISTILL	4.	94.49	0.261	0.02	114.8	8.50	3.61	3.58	118.41	0.	-63.48	70.62	3.322	-188.	0	57
28731 GTRA12	DISTILL	4.	1.00	0.017	0.02	26.8	1.98	0.84	1.24	29.11	0.	0.	33.17	1.560	-30.	-43	0
28731 GTRA12	DISTILL	4.	81.23	0.284	0.02	104.7	7.75	3.30	3.29	101.50	0.	-54.48	61.36	2.887	-154.	0	57
28731 GTRA16	DISTILL	4.	1.00	0.018	0.02	27.0	2.00	0.85	1.24	29.08	0.	0.	33.17	1.560	-30.	-43	0
28731 GTRA16	DISTILL	4.	69.39	0.290	0.02	93.3	6.91	2.94	2.97	88.94	0.	-46.43	55.32	2.603	-130.	0	57
28731 GTR208	DISTILL	4.	1.00	0.019	0.02	26.6	1.97	0.84	1.24	29.05	0.	0.	33.10	1.557	-29.	-42	0
28731 GTR208	DISTILL	4.	50.73	0.265	0.02	66.8	4.95	2.10	2.26	70.91	0.	-33.76	46.46	2.186	-90.	0	56
28731 GTR212	DISTILL	4.	1.00	0.019	0.02	26.7	1.98	0.84	1.24	29.05	0.	0.	33.11	1.557	-29.	-42	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
28731	GTR212	DISTILL	4.	54.78	0.291	0.02	72.4	5.36	2.28	2.41	74.26	0.	-36.52	47.80	2.249	-97.	0	57
28731	GTR216	DISTILL	4.	1.00	0.019	0.02	26.8	1.98	0.84	1.24	29.04	0.	0.	33.11	1.557	-29.	-42	0
28731	GTR216	DISTILL	4.	57.03	0.299	0.02	78.6	5.82	2.47	2.57	75.70	0.	-36.04	48.52	2.283	-102.	0	57
28731	GTRW08	DISTILL	4.	1.00	0.013	0.02	26.9	1.99	0.85	1.24	29.21	0.	0.	33.29	1.566	-30.	-43	0
28731	GTRW08	DISTILL	4.	104.61	0.236	0.02	112.8	8.35	3.55	3.56	133.32	0.	-70.35	78.44	3.690	-212.	0	57
28731	GTRW12	DISTILL	4.	1.00	0.016	0.02	26.9	1.99	0.85	1.24	29.14	0.	0.	33.22	1.563	-30.	-43	0
28731	GTRW12	DISTILL	4.	95.23	0.275	0.02	97.9	7.25	3.08	3.16	117.03	0.	-63.98	66.54	3.130	-168.	0	57
28731	GTRW16	DISTILL	4.	1.00	0.017	0.02	27.1	2.01	0.85	1.24	29.11	0.	0.	33.21	1.562	-30.	-44	0
28731	GTRW16	DISTILL	4.	80.12	0.284	0.02	91.0	6.74	2.86	2.94	100.39	0.	-53.72	59.21	2.786	-141.	0	57
28731	GTR308	DISTILL	4.	1.00	0.012	0.02	26.6	1.97	0.84	1.24	29.24	0.	0.	33.28	1.566	-30.	-43	0
28731	GTR308	DISTILL	4.	68.81	0.202	0.02	75.8	5.61	2.39	2.56	99.29	0.	-46.04	63.81	3.002	-149.	0	56
28731	GTR312	DISTILL	4.	1.00	0.019	0.02	26.8	1.98	0.84	1.24	29.05	0.	0.	33.11	1.558	-29.	-42	0
28731	GTR312	DISTILL	4.	60.79	0.297	0.02	70.9	5.25	2.23	2.39	79.52	0.	-40.60	48.79	2.296	-99.	0	56
28731	GTR316	DISTILL	4.	1.00	0.019	0.02	26.9	2.00	0.85	1.24	29.05	0.	0.	33.14	1.559	-30.	-43	0
28731	GTR316	DISTILL	4.	59.47	0.295	0.02	72.8	5.39	2.29	2.43	78.48	0.	-39.70	48.89	2.300	-100.	0	57
28731	FCPADS	DISTILL	4.	1.00	0.015	0.02	28.9	2.14	0.91	1.55	29.15	0.	0.	33.75	1.588	-32.	-50	0
28731	FCPADS	DISTILL	4.	119.79	0.279	0.02	237.6	17.60	7.48	45.41	141.02	0.	-80.66	130.85	6.156	-440.	0	59
28731	FCHCDS	DISTILL	4.	1.00	0.021	0.02	29.1	2.15	0.92	1.52	28.99	0.	0.	33.58	1.580	-32.	-50	0
28731	FCHCDS	DISTILL	4.	94.76	0.360	0.02	204.4	15.14	6.44	33.97	102.89	0.	-63.67	94.77	4.459	-310.	0	60
28741	ONOCGN	COAL-AF	4.	0.	0.	0.15	7.4	0.56	0.24	0.66	1.81	1.22	0.	4.48	1.000	0.	0	0
28741	STM141	RESIDUA	4.	1.00	0.176	0.15	6.7	0.51	0.22	0.62	3.57	0.	0.	4.91	1.096	-1.	-38	0
28741	STM141	RESIDUA	4.	1.72	0.252	0.15	6.6	0.50	0.21	0.49	3.90	0.	-0.52	4.58	1.022	0.	-13	0
28741	STM141	COAL-FG	4.	1.00	0.176	0.15	13.7	1.04	0.44	1.11	2.07	0.	0.	4.67	1.042	-4.	2	20
28741	STM141	COAL-FG	4.	1.72	0.252	0.15	12.4	0.94	0.40	0.88	2.27	0.	-0.52	3.97	0.885	-1.	12	8
28741	STM141	COAL-AF	4.	1.00	0.176	0.15	12.3	0.93	0.40	1.03	2.07	0.	0.	4.43	0.989	-2.	6	13
28741	STM141	COAL-AF	4.	1.72	0.252	0.15	9.9	0.75	0.32	0.78	2.27	0.	-0.52	3.59	0.800	2.	25	4
28741	STM088	RESIDUA	4.	1.00	0.176	0.15	6.2	0.47	0.20	0.60	3.57	0.	0.	4.84	1.081	-1.	-23	0
28741	STM088	RESIDUA	4.	1.32	0.213	0.15	5.8	0.44	0.19	0.46	3.72	0.	-0.23	4.58	1.022	0.	-9	0
28741	STM088	COAL-FG	4.	1.00	0.176	0.15	13.0	0.99	0.42	1.07	2.07	0.	0.	4.55	1.016	-3.	4	16
28741	STM088	COAL-FG	4.	1.32	0.213	0.15	11.4	0.87	0.37	0.84	2.16	0.	-0.23	4.00	0.893	-0.	12	7
28741	STM088	COAL-AF	4.	1.00	0.176	0.15	11.4	0.87	0.37	1.00	2.07	0.	0.	4.30	0.961	-1.	8	10
28741	STM088	COAL-AF	4.	1.32	0.213	0.15	9.3	0.71	0.30	0.75	2.16	0.	-0.23	3.68	0.822	2.	27	4
28741	PFBSTM	COAL-PF	4.	1.00	0.174	0.15	14.8	1.12	0.48	1.17	2.08	0.	0.	4.85	1.082	-5.	0	29
28741	PFBSTM	COAL-PF	4.	2.61	0.312	0.15	15.5	1.18	0.50	1.13	2.52	0.	-1.18	4.15	0.927	-3.	8	10
28741	TISTMT	RESIDUA	4.	1.00	0.174	0.15	16.2	1.23	0.52	0.85	3.58	0.	0.	6.19	1.382	-10.	0	64
28741	TISTMT	RESIDUA	4.	3.41	0.352	0.15	33.7	2.56	1.09	1.19	4.72	0.	-1.76	7.80	1.741	-23.	0	77
28741	TISTMT	COAL	4.	1.00	0.174	0.15	24.3	1.84	0.78	1.37	2.08	0.	0.	6.08	1.357	-13.	0	208
28741	TISTMT	COAL	4.	3.41	0.352	0.15	42.8	3.25	1.38	1.68	2.74	0.	-1.76	7.29	1.628	-26.	0	999
28741	TIHRSG	RESIDUA	4.	1.00	0.131	0.15	23.0	1.70	0.72	0.94	3.77	0.	0.	7.13	1.590	-15.	0	65
28741	TIHRSG	RESIDUA	4.	1.46	0.170	0.15	28.3	2.10	0.89	0.94	4.07	0.	-0.34	7.66	1.711	-20.	0	67
28741	TIHRSG	COAL	4.	1.00	0.131	0.15	31.7	2.41	1.02	1.46	2.19	0.	0.	7.08	1.580	-20.	0	102
28741	TIHRSG	COAL	4.	1.46	0.170	0.15	36.5	2.77	1.18	1.38	2.36	0.	-0.34	7.36	1.642	-23.	0	123
28741	STIRL	DISTILL	4.	1.00	0.126	0.15	6.7	0.50	0.21	0.57	4.65	0.	0.	5.93	1.323	-4.	-89	0
28741	STIRL	DISTILL	4.	3.63	0.262	0.15	10.9	0.81	0.34	0.59	6.84	0.	-1.92	6.66	1.487	-8.	0	57

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
					********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********											
28741 STIRL	RESIDUA	4.	1.00	0.126 0.15	6.7	0.50	0.21	0.57	3.79	0.	0.	5.07	1.132	-1.	-42	0
28741 STIRL	RESIDUA	4.	3.63	0.262 0.15	11.0	0.81	0.34	0.59	5.58	0.	-1.92	5.40	1.206	-4.	0	59
28741 STIRL	COAL	4.	1.00	0.126 0.15	13.7	1.02	0.43	1.05	2.20	0.	0.	4.70	1.049	-4.	1	23
28741 STIRL	COAL	4.	3.63	0.262 0.15	18.6	1.38	0.59	1.05	3.24	0.	-1.92	4.33	0.968	-5.	6	12
28741 HEGT85	COAL-AF	4.	1.00	0.047 0.15	21.6	1.64	0.70	1.17	2.40	0.	0.	5.90	1.318	-11.	0	127
28741 HEGT85	COAL-AF	4.	15.71	0.142 0.15	93.6	7.10	3.02	3.40	11.15	0.	-10.74	13.94	3.111	-71.	0	95
28741 HEGT60	COAL-AF	4.	1.00	0.058 0.15	20.9	1.59	0.68	1.16	2.37	0.	0.	5.79	1.293	-11.	0	154
28741 HEGT60	COAL-AF	4.	5.77	0.142 0.15	45.8	3.48	1.48	1.76	5.07	0.	-3.48	8.31	1.855	-30.	0	123
28741 HEGT00	COAL-AF	4.	1.00	0.066 0.15	19.9	1.51	0.64	1.13	2.35	0.	0.	5.63	1.256	-10.	0	270
28741 HEGT00	COAL-AF	4.	2.41	0.114 0.15	25.7	1.95	0.83	1.10	3.12	0.	-1.03	5.97	1.332	-13.	0	999
28741 FCHCCL	COAL	4.	1.00	0.151 0.15	19.2	1.49	0.63	1.18	2.14	0.	0.	5.44	1.215	-9.	0	999
28741 FCHCCL	COAL	4.	4.33	0.337 0.15	30.4	2.36	1.00	1.56	3.24	0.	-2.43	5.74	1.281	-15.	0	999
28741 FCSTCL	COAL	4.	1.00	0.157 0.15	18.6	1.45	0.61	1.21	2.12	0.	0.	5.40	1.204	-9.	0	999
28741 FCSTCL	COAL	4.	7.11	0.410 0.15	38.0	2.96	1.26	2.00	4.05	0.	-4.46	5.80	1.295	-19.	1	25
28741 IGGTST	COAL	4.	1.00	0.127 0.15	18.8	1.47	0.62	1.22	2.20	0.	0.	5.50	1.228	-9.	0	999
28741 IGGTST	COAL	4.	5.03	0.259 0.15	31.2	2.42	1.03	1.34	3.77	0.	-2.94	5.63	1.256	-15.	0	28
28741 GTSOAR	RESIDUA	4.	1.00	0.128 0.15	6.9	0.51	0.22	0.54	3.78	0.	0.	5.06	1.129	-2.	-53	0
28741 GTSOAR	RESIDUA	4.	4.57	0.291 0.15	10.7	0.80	0.34	0.54	6.18	0.	-2.60	5.25	1.171	-4.	0	60
28741 GTAC08	RESIDUA	4.	1.00	0.150 0.15	6.4	0.47	0.20	0.53	3.68	0.	0.	4.89	1.091	-1.	-25	0
28741 GTAC08	RESIDUA	4.	3.54	0.310 0.15	8.3	0.61	0.26	0.46	5.14	0.	-1.85	4.62	1.031	-1.	0	55
28741 GTAC12	RESIDUA	4.	1.00	0.148 0.15	6.4	0.47	0.20	0.53	3.69	0.	0.	4.90	1.093	-1.	-25	0
28741 GTAC12	RESIDUA	4.	4.42	0.333 0.15	9.5	0.71	0.30	0.50	5.69	0.	-2.50	4.70	1.048	-2.	0	68
28741 GTAC16	RESIDUA	4.	1.00	0.146 0.15	6.5	0.48	0.21	0.53	3.70	0.	0.	4.92	1.099	-1.	-29	0
28741 GTAC16	RESIDUA	4.	5.02	0.342 0.15	10.8	0.80	0.34	0.54	6.09	0.	-2.93	4.84	1.080	-3.	0	74
28741 GTWC16	RESIDUA	4.	1.00	0.132 0.15	6.8	0.51	0.21	0.54	3.76	0.	0.	5.02	1.121	-1.	-43	0
28741 GTWC16	RESIDUA	4.	5.25	0.315 0.15	11.2	0.83	0.35	0.55	6.54	0.	-3.10	5.17	1.153	-4.	0	62
28741 CC1626	RESIDUA	4.	1.00	0.132 0.15	6.9	0.52	0.22	0.61	3.76	0.	0.	5.12	1.143	-2.	-73	0
28741 CC1626	RESIDUA	4.	8.88	0.363 0.15	15.7	1.19	0.51	0.81	8.91	0.	-5.75	5.68	1.267	-8.	0	71
28741 CC1622	RESIDUA	4.	1.00	0.138 0.15	6.7	0.51	0.22	0.60	3.74	0.	0.	5.06	1.130	-1.	-47	0
28741 CC1622	RESIDUA	4.	8.00	0.372 0.15	14.8	1.12	0.48	0.77	8.12	0.	-5.11	5.38	1.201	-6.	0	79
28741 CC1222	RESIDUA	4.	1.00	0.140 0.15	6.5	0.50	0.21	0.60	3.73	0.	0.	5.04	1.125	-1.	-39	0
28741 CC1222	RESIDUA	4.	7.98	0.375 0.15	14.1	1.07	0.45	0.76	8.06	0.	-5.09	5.25	1.172	-6.	0	84
28741 CC0822	RESIDUA	4.	1.00	0.149 0.15	6.7	0.51	0.22	0.61	3.69	0.	0.	5.02	1.120	-1.	-45	0
28741 CC0822	RESIDUA	4.	6.41	0.379 0.15	12.2	0.93	0.39	0.69	6.81	0.	-3.95	4.88	1.089	-4.	0	***
28741 STIG15	RESIDUA	4.	1.00	0.049 0.15	6.9	0.51	0.22	0.58	4.12	0.	0.	5.43	1.212	-3.	-77	0
28741 STIG15	RESIDUA	4.	197.56	0.171 0.15	206.7	15.31	6.51	12.38	203.39	0.	-143.45	94.14	21.012	-375.	0	58
28741 STIG10	RESIDUA	4.	1.00	0.070 0.15	6.7	0.49	0.21	0.56	4.03	0.	0.	5.30	1.182	-2.	-52	0
28741 STIG10	RESIDUA	4.	18.27	0.218 0.15	23.9	1.77	0.75	1.40	19.96	0.	-12.60	11.27	2.515	-29.	0	58
28741 STIG1S	RESIDUA	4.	1.00	0.080 0.15	6.6	0.49	0.21	0.56	3.99	0.	0.	5.25	1.171	-2.	-46	0
28741 STIG1S	RESIDUA	4.	10.72	0.228 0.15	16.2	1.20	0.51	1.00	12.54	0.	-7.09	8.16	1.821	-16.	0	58
28741 DEADV3	RESIDUA	4.	1.00	0.099 0.15	8.8	0.65	0.28	0.62	3.91	0.	0.	5.45	1.216	-4.	0	57
28741 DEADV3	RESIDUA	4.	11.88	0.289 0.15	32.4	2.40	1.02	1.23	12.56	0.	-7.94	9.26	2.068	-27.	0	64
28741 DEHTPM	RESIDUA	4.	1.00	0.148 0.15	8.9	0.66	0.28	0.65	3.70	0.	0.	5.28	1.178	-3.	0	57
28741 DEHTPM	RESIDUA	4.	5.22	0.352 0.15	16.6	1.23	0.52	0.79	6.16	0.	-3.08	5.64	1.258	-8.	0	74

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM		SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
						********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********											
28741	DESOA3	DISTILL	4.	1.00	0.084 0.15	7.8	0.58	0.25	0.60	4.87	0.	0.	6.29	1.404	-6.	0	56
28741	DESOA3	DISTILL	4.	13.79	0.251 0.15	46.0	3.41	1.45	1.60	18.37	0.	-9.33	15.49	3.457	-53.	0	60
28741	DESOA3	RESIDUA	4.	1.00	0.084 0.15	7.8	0.58	0.25	0.60	3.97	0.	0.	5.40	1.204	-3.	0	56
28741	DESOA3	RESIDUA	4.	13.79	0.251 0.15	46.0	3.41	1.45	1.60	14.98	0.	-9.33	12.11	2.702	-42.	0	63
28741	GTSOAD	DISTILL	4.	1.00	0.141 0.15	6.[illegible]	0.46	0.20	0.52	4.56	0.	0.	5.75	1.282	-3.	-53	0
28741	GTSOAD	DISTILL	4.	4.26	0.313 0.15	8.6	0.64	0.27	0.48	7.02	0.	-2.38	6.02	1.344	-5.	0	56
28741	GTRA08	DISTILL	4.	1.00	0.131 0.15	7.1	0.53	0.22	0.54	4.62	0.	0.	5.91	1.320	-4.	163	0
28741	GTRA08	DISTILL	4.	7.04	0.341 0.15	14.5	1.07	0.46	0.65	9.49	0.	-4.41	7.26	1.620	-12.	0	58
28741	GTRA12	DISTILL	4.	1.00	0.134 0.15	7.0	0.52	0.22	0.54	4.60	0.	0.	5.89	1.314	-4.	136	0
28741	GTRA12	DISTILL	4.	6.88	0.347 0.15	14.5	1.07	0.46	0.65	9.24	0.	-4.29	7.13	1.591	-12.	0	58
28741	GTRA16	DISTILL	4.	1.00	0.135 0.15	7.2	0.54	0.23	0.55	4.60	0.	0.	5.91	1.319	-4.	999	0
28741	GTRA16	DISTILL	4.	6.42	0.343 0.15	14.6	1.08	0.46	0.65	8.85	0.	-3.96	7.08	1.581	-11.	0	58
28741	GTR208	DISTILL	4.	1.00	0.135 0.15	6.8	0.50	0.21	0.54	4.60	0.	0.	5.86	1.307	-4.	-94	0
28741	GTR208	DISTILL	4.	5.32	0.323 0.15	11.5	0.85	0.36	0.56	8.00	0.	-3.16	6.62	1.477	-9.	0	57
28741	GTR212	DISTILL	4.	1.00	0.134 0.15	6.9	0.51	0.22	0.54	4.60	0.	0.	5.87	1.311	-4.	113	0
28741	GTR212	DISTILL	4.	5.71	0.329 0.15	12.4	0.92	0.39	0.59	8.32	0.	-3.44	6.78	1.513	-9.	0	57
28741	GTR216	DISTILL	4.	1.00	0.137 0.15	7.0	0.52	0.22	0.54	4.59	0.	0.	5.87	1.310	-4.	129	0
28741	GTR216	DISTILL	4.	5.85	0.338 0.15	13.1	0.97	0.41	0.61	8.36	0.	-3.54	6.80	1.517	-10.	0	58
28741	GTRW08	DISTILL	4.	1.00	0.110 0.15	7.2	0.53	0.23	0.55	4.73	0.	0.	6.04	1.348	-5.	999	0
28741	GTRW08	DISTILL	4.	8.41	0.300 0.15	15.9	1.18	0.50	0.71	11.52	0.	-5.41	8.50	1.898	-16.	0	58
28741	GTRW12	DISTILL	4.	1.00	0.118 0.15	7.2	0.53	0.23	0.55	4.69	0.	0.	6.00	1.338	-5.	999	0
28741	GTRW12	DISTILL	4.	8.56	0.322 0.15	16.0	1.19	0.50	0.71	11.30	0.	-5.51	8.19	1.828	-16.	0	58
28741	GTRW16	DISTILL	4.	1.00	0.120 0.15	7.4	0.55	0.23	0.55	4.68	0.	0.	6.01	1.341	-5.	999	0
28741	GTRW16	DISTILL	4.	7.93	0.321 0.15	15.9	1.18	0.50	0.70	10.68	0.	-5.06	8.01	1.788	-15.	0	58
28741	GTR308	DISTILL	4.	1.00	0.103 0.15	6.9	0.51	0.22	0.54	4.77	0.	0.	6.04	1.348	-5.	116	0
28741	GTR308	DISTILL	4.	6.42	0.260 0.15	12.8	0.95	0.40	0.62	9.96	0.	-3.96	7.98	1.781	-13.	0	57
28741	GTR312	DISTILL	4.	1.00	0.122 0.15	7.0	0.52	0.22	0.54	4.67	0.	0.	5.95	1.327	-4.	127	0
28741	GTR312	DISTILL	4.	6.92	0.315 0.15	13.4	0.99	0.42	0.63	9.73	0.	-4.32	7.45	1.663	-12.	0	57
28741	GTR316	DISTILL	4.	1.00	0.121 0.15	7.2	0.53	0.23	0.55	4.67	0.	0.	5.97	1.333	-4.	183	0
28741	GTR316	DISTILL	4.	6.81	0.312 0.15	13.9	1.03	0.44	0.64	9.66	0.	-4.24	7.53	1.680	-12.	0	58
28741	FCPADS	DISTILL	4.	1.00	0.092 0.15	7.1	0.52	0.22	0.83	4.83	0.	0.	6.40	1.428	-6.	187	0
28741	FCPADS	DISTILL	4.	15.07	0.279 0.15	36.5	2.70	1.15	6.39	19.07	0.	-10.27	19.04	4.249	-60.	0	59
28741	FCMCDS	DISTILL	4.	1.00	0.123 0.15	7.2	0.53	0.23	0.80	4.66	0.	0.	6.22	1.388	-5.	999	0
28741	FCMCDS	DISTILL	4.	11.92	0.360 0.15	31.1	2.31	0.98	4.80	13.91	0.	-7.97	14.03	3.132	-42.	0	60
28951	ONOCGN	RESIDUA	4.	0.	0. 0.68	1.4	0.10	0.04	0.18	0.68	1.22	0.	2.22	1.000	0.	0	0
28951	STM141	RESIDUA	4.	0.36	0.146 0.68	2.6	0.19	0.08	0.27	0.84	0.77	0.	2.16	0.975	-0.	8	10
28951	STM141	COAL-FG	4.	0.36	0.146 0.68	4.4	0.33	0.14	0.43	0.49	0.77	0.	2.17	0.978	-1.	6	12
28951	STM141	COAL-AF	4.	0.36	0.146 0.68	4.0	0.30	0.13	0.38	0.49	0.77	0.	2.07	0.935	-1.	9	10
28951	STM068	RESIDUA	4.	0.28	0.111 0.68	2.2	0.17	0.07	0.26	0.80	0.88	0.	2.17	0.981	-0.	9	10
28951	STM068	COAL-FG	4.	0.28	0.111 0.68	4.0	0.30	0.13	0.42	0.47	0.88	0.	2.19	0.988	-1.	6	13
28951	STM068	COAL-AF	4.	0.28	0.111 0.68	3.7	0.28	0.12	0.37	0.47	0.88	0.	2.12	0.955	-1.	8	10
28951	PFBSTM	COAL-PF	4.	0.56	0.221 0.68	5.9	0.45	0.19	0.48	0.55	0.54	0.	2.20	0.992	-2.	5	13
28951	TISTMT	RESIDUA	4.	0.73	0.289 0.68	11.0	0.83	0.35	0.49	1.02	0.33	0.	3.03	1.368	-7.	0	999
28951	TISTMT	COAL	4.	0.73	0.289 0.68	14.0	1.06	0.45	0.69	0.59	0.33	0.	3.13	1.411	-9.	0	999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
			********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********														
28951	TIHRSG	RESIDUA	4.	0.31	0.101 0.68	9.1	0.67	0.29	0.36	0.86	0.84	0.	3.02	1.363	-6.	0	97
28951	TIHRSG	COAL	4.	0.31	0.101 0.68	11.7	0.89	0.38	0.53	0.50	0.84	0.	3.14	1.417	-8.	0	435
28951	STIRL	DISTILL	4.	0.85	0.247 0.68	2.7	0.20	0.08	0.25	1.53	0.19	0.	2.24	1.012	-1.	3	17
28951	STIRL	RESIDUA	4.	0.85	0.247 0.68	2.7	0.20	0.08	0.25	1.24	0.19	0.	1.96	0.885	0.	17	6
28951	STIRL	COAL	4.	0.85	0.247 0.68	5.0	0.37	0.16	0.42	0.72	0.19	0.	1.85	0.837	-1.	12	8
28951	HEGT85	COAL-AF	4.	1.00	0.164 0.68	15.5	1.18	0.50	0.79	0.92	0.	0.	3.39	1.530	-11.	0	999
28951	HEGT85	COAL-AF	4.	2.20	0.203 0.68	23.3	1.77	0.75	0.89	1.56	0.	-0.88	4.09	1.847	-16.	0	999
28951	HEGT60	COAL-AF	4.	1.00	0.174 0.68	14.0	1.06	0.45	0.68	0.91	0.	0.	3.11	1.403	-9.	0	999
28951	HEGT60	COAL-AF	4.	1.09	0.180 0.68	14.2	1.08	0.46	0.59	0.96	0.	-0.07	3.02	1.364	-9.	0	999
28951	HEGT00	COAL-AF	4.	0.51	0.086 0.68	8.6	0.65	0.28	0.41	0.66	0.60	0.	2.60	1.173	-5.	0	999
28951	FCMCCL	COAL	4.	0.94	0.324 0.68	10.3	0.80	0.34	0.56	0.70	0.08	0.	2.48	1.120	-5.	2	20
28951	FCSTCL	COAL	4.	1.00	0.359 0.68	11.3	0.88	0.37	0.79	0.71	0.	0.	2.75	1.242	-7.	0	999
28951	FCSTCL	COAL	4.	1.53	0.409 0.68	12.9	1.00	0.43	0.74	0.88	0.	-0.39	2.66	1.199	-7.	1	23
28951	IGGTST	COAL	4.	1.00	0.289 0.68	11.4	0.89	0.38	0.73	0.79	0.	0.	2.78	1.255	-7.	0	999
28951	IGGTST	COAL	4.	1.08	0.297 0.68	11.3	0.88	0.38	0.64	0.82	0.	-0.06	2.65	1.197	-6.	1	25
28951	GTSOAR	RESIDUA	4.	0.96	0.292 0.68	3.6	0.27	0.11	0.24	1.30	0.05	0.	1.97	0.888	-0.	12	7
28951	GTAC08	RESIDUA	4.	0.77	0.263 0.68	2.7	0.20	0.09	0.21	1.12	0.28	0.	1.90	0.859	0.	19	5
28951	GTAC12	RESIDUA	4.	0.95	0.325 0.68	3.0	0.22	0.10	0.23	1.23	0.06	0.	1.83	0.826	0.	19	5
28951	GTAC16	RESIDUA	4.	1.00	0.338 0.68	3.4	0.26	0.11	0.30	1.26	0.	0.	1.92	0.866	-0.	14	7
28951	GTAC16	RESIDUA	4.	1.07	0.346 0.68	3.4	0.25	0.11	0.24	1.30	0.	-0.05	1.84	0.832	0.	17	6
28951	GTWC16	RESIDUA	4.	1.00	0.301 0.68	3.8	0.28	0.12	0.32	1.33	0.	0.	2.05	0.926	-1.	10	9
28951	GTWC16	RESIDUA	4.	1.14	0.315 0.68	3.8	0.28	0.12	0.25	1.42	0.	-0.10	1.97	0.890	-0.	12	8
28951	CC1626	RESIDUA	4.	1.00	0.301 0.68	4.2	0.32	0.14	0.43	1.33	0.	0.	2.22	1.002	-1.	5	14
28951	CC1626	RESIDUA	4.	1.91	0.362 0.68	5.3	0.40	0.17	0.40	1.93	0.	-0.67	2.23	1.007	-2.	5	14
28951	CC1622	RESIDUA	4.	1.00	0.315 0.68	4.0	0.30	0.13	0.42	1.30	0.	0.	2.15	0.971	-1.	7	11
28951	CC1622	RESIDUA	4.	1.72	0.370 0.68	4.7	0.36	0.15	0.37	1.76	0.	-0.53	2.11	0.952	-1.	7	11
28951	CC1222	RESIDUA	4.	1.00	0.318 0.68	3.8	0.29	0.12	0.42	1.30	0.	0.	2.13	0.961	-1.	7	11
28951	CC1222	RESIDUA	4.	1.72	0.374 0.68	4.5	0.34	0.15	0.37	1.74	0.	-0.52	2.07	0.936	-1.	8	10
28951	CC0822	RESIDUA	4.	1.00	0.340 0.68	3.9	0.29	0.13	0.41	1.25	0.	0.	2.09	0.941	-1.	9	10
28951	CC0822	RESIDUA	4.	1.38	0.377 0.68	4.1	0.31	0.13	0.35	1.47	0.	-0.28	1.99	0.897	-1.	10	8
28951	STIG15	RESIDUA	4.	1.00	0.111 0.68	4.5	0.33	0.14	0.43	1.69	0.	0.	2.59	1.166	-3.	0	94
28951	STIG15	RESIDUA	4.	42.95	0.171 0.68	51.1	3.78	1.61	3.19	44.22	0.	-30.61	22.18	10.005	-86.	0	59
28951	STIG10	RESIDUA	4.	1.00	0.160 0.68	4.1	0.31	0.13	0.40	1.60	0.	0.	2.43	1.097	-2.	0	999
28951	STIG10	RESIDUA	4.	3.97	0.213 0.68	7.8	0.58	0.25	0.52	4.34	0.	-2.17	3.51	1.585	-7.	0	64
28951	STIG1S	RESIDUA	4.	1.00	0.182 0.68	4.0	0.29	0.12	0.39	1.56	0.	0.	2.36	1.066	-2.	0	999
28951	STIG1S	RESIDUA	4.	2.33	0.228 0.68	5.4	0.40	0.17	0.39	2.73	0.	-0.97	2.72	1.225	-3.	0	82
28951	DEADV3	RESIDUA	4.	1.00	0.241 0.68	5.7	0.42	0.18	0.43	1.44	0.	0.	2.47	1.116	-3.	0	999
28951	DEADV3	RESIDUA	4.	2.33	0.303 0.68	7.9	0.58	0.25	0.43	2.46	0.	-0.97	2.75	1.242	-5.	0	999
28951	DEHTPM	RESIDUA	4.	1.00	0.356 0.68	5.3	0.39	0.17	0.42	1.22	0.	0.	2.20	0.993	-2.	5	13
28951	DEHTPM	RESIDUA	4.	1.19	0.378 0.68	5.4	0.40	0.17	0.35	1.33	0.	-0.14	2.12	0.955	-2.	7	11
28951	DESOA3	DISTILL	4.	1.00	0.207 0.68	4.8	0.35	0.15	0.41	1.85	0.	0.	2.77	1.248	-3.	0	70
28951	DESOA3	DISTILL	4.	2.65	0.266 0.68	9.3	0.69	0.29	0.48	3.53	0.	-1.20	3.79	1.709	-9.	0	64
28951	DESOA3	RESIDUA	4.	1.00	0.207 0.68	4.8	0.35	0.15	0.41	1.51	0.	0.	2.43	1.094	-2.	0	999
28951	DESOA3	RESIDUA	4.	2.65	0.266 0.68	9.3	0.69	0.29	0.48	2.88	0.	-1.20	3.14	1.416	-7.	0	86

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM		SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST CAPITAL *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
							********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********										
28951	GTSOAD	DISTILL	4.	0.91	0.299 0.68	2.8	0.21	0.09	0.22	1.50	0.11	0.	2.13	0.959	-0.	9	9
28951	GTRA08	DISTILL	4.	1.00	0.313 0.68	4.3	0.32	0.13	0.35	1.60	0.	0.	2.40	1.084	-2.	0	999
28951	GTRA08	DISTILL	4.	1.44	0.351 0.68	4.7	0.35	0.15	0.28	1.95	0.	-0.32	2.40	1.083	-2.	0	999
28951	GTRA12	DISTILL	4.	1.00	0.318 0.68	4.2	0.31	0.13	0.35	1.59	0.	0.	2.38	1.073	-2.	0	999
28951	GTRA12	DISTILL	4.	1.42	0.356 0.68	4.6	0.34	0.14	0.28	1.91	0.	-0.31	2.37	1.068	-2.	0	29
28951	GTRA16	DISTILL	4.	1.00	0.319 0.68	4.4	0.32	0.14	0.35	1.59	0.	0.	2.39	1.080	-2.	0	999
28951	GTRA16	DISTILL	4.	1.34	0.351 0.68	4.7	0.35	0.15	0.28	1.85	0.	-0.25	2.37	1.069	-2.	0	29
28951	GTR208	DISTILL	4.	1.00	0.317 0.68	3.8	0.28	0.12	0.32	1.59	0.	0.	2.31	1.041	-1.	1	24
28951	GTR208	DISTILL	4.	1.12	0.330 0.68	3.8	0.28	0.12	0.25	1.69	0.	-0.09	2.24	1.012	-1.	4	15
28951	GTR212	DISTILL	4.	1.00	0.315 0.68	4.0	0.29	0.13	0.33	1.60	0.	0.	2.35	1.058	-2.	0	30
28951	GTR212	DISTILL	4.	1.20	0.335 0.68	4.0	0.30	0.13	0.26	1.75	0.	-0.15	2.29	1.034	-1.	2	20
28951	GTR216	DISTILL	4.	1.00	0.321 0.68	4.1	0.30	0.13	0.33	1.58	0.	0.	2.35	1.058	-2.	0	29
28951	GTR216	DISTILL	4.	1.23	0.344 0.68	4.2	0.31	0.13	0.26	1.76	0.	-0.17	2.30	1.036	-2.	2	20
28951	GTRW08	DISTILL	4.	1.00	0.262 0.68	4.5	0.33	0.14	0.37	1.72	0.	0.	2.56	1.153	-3.	0	102
28951	GTRW08	DISTILL	4.	1.73	0.306 0.68	5.3	0.40	0.17	0.31	2.38	0.	-0.54	2.71	1.224	-3.	0	78
28951	GTRW12	DISTILL	4.	1.00	0.278 0.68	4.5	0.33	0.14	0.36	1.68	0.	0.	2.52	1.136	-2.	0	162
28951	GTRW12	DISTILL	4.	1.78	0.329 0.68	5.4	0.40	0.17	0.31	2.35	0.	-0.57	2.67	1.202	-3.	0	89
28951	GTRW16	DISTILL	4.	1.00	0.280 0.68	4.6	0.34	0.14	0.37	1.68	0.	0.	2.53	1.140	-2.	0	174
28951	GTRW16	DISTILL	4.	1.66	0.327 0.68	5.4	0.40	0.17	0.31	2.24	0.	-0.49	2.64	1.190	-3.	0	101
28951	GTR308	DISTILL	4.	1.00	0.249 0.68	4.0	0.30	0.13	0.34	1.75	0.	0.	2.52	1.135	-2.	0	96
28951	GTR308	DISTILL	4.	1.32	0.272 0.68	4.2	0.31	0.13	0.27	2.05	0.	-0.23	2.53	1.141	-2.	0	90
28951	GTR312	DISTILL	4.	1.00	0.263 0.68	4.1	0.31	0.13	0.35	1.67	0.	0.	2.46	1.109	-2.	0	999
28951	GTR312	DISTILL	4.	1.47	0.319 0.68	4.6	0.34	0.14	0.28	2.07	0.	-0.34	2.49	1.122	-2.	0	753
28951	GTR316	DISTILL	4.	1.00	0.281 0.68	4.3	0.32	0.14	0.35	1.68	0.	0.	2.48	1.121	-2.	0	443
28951	GTR316	DISTILL	4.	1.45	0.316 0.68	4.7	0.35	0.15	0.29	2.06	0.	-0.33	2.52	1.135	-3.	0	247
28951	FCPADS	DISTILL	4.	1.00	0.210 0.68	4.0	0.30	0.13	0.65	1.84	0.	0.	2.92	1.316	-3.	0	64
28951	FCPADS	DISTILL	4.	3.28	0.279 0.68	8.6	0.64	0.27	1.47	4.14	0.	-1.66	4.86	2.194	-12.	0	61
28951	FCMCDS	DISTILL	4.	1.00	0.281 0.68	4.2	0.31	0.13	0.62	1.68	0.	0.	2.73	1.233	-3.	0	72
28951	FCMCDS	DISTILL	4.	2.59	0.360 0.68	7.3	0.54	0.23	1.12	3.02	0.	-1.16	3.75	1.691	-8.	0	64
29111	ONOCON	COAL-FG	14.	0.	0. 0.13	23.8	1.80	0.77	1.47	8.16	4.72	0.	16.92	1.000	0.	0	0
29111	STM141	RESIDUA	14.	1.00	0.158 0.13	15.1	1.15	0.49	1.05	15.85	0.	0.	18.53	1.095	-1.	-16	0
29111	STM141	RESIDUA	14.	1.26	0.186 0.13	15.9	1.21	0.51	0.88	16.31	0.	-0.73	18.18	1.074	-0.	-15	0
29111	STM141	COAL-FG	14.	1.00	0.158 0.13	33.4	2.53	1.08	2.21	9.20	0.	0.	15.03	0.888	1.	17	6
29111	STM141	COAL-FG	14.	1.26	0.186 0.13	29.8	2.26	0.96	1.83	9.47	0.	-0.73	13.80	0.815	7.	32	3
29111	STM141	COAL-AF	14.	1.00	0.158 0.13	26.3	1.99	0.85	2.05	9.20	0.	0.	14.10	0.833	8.	59	2
29111	STM141	COAL-AF	14.	1.26	0.186 0.13	21.1	1.60	0.68	1.66	9.47	0.	-0.73	12.69	0.750	15.	999	0
29111	STM088	RESIDUA	14.	0.84	0.132 0.13	14.1	1.07	0.46	0.83	15.56	0.77	0.	18.68	1.104	-1.	-16	0
29111	STM088	COAL-FG	14.	0.84	0.132 0.13	27.5	2.09	0.89	1.72	9.03	0.77	0.	14.50	0.856	6.	38	3
29111	STM088	COAL-AF	14.	0.84	0.132 0.13	19.9	1.51	0.64	1.60	9.03	0.77	0.	13.55	0.801	12.	999	0
29111	PFBSTM	COAL-PF	14.	1.00	0.153 0.13	35.9	2.72	1.16	2.64	9.25	0.	0.	15.77	0.932	-2.	11	8
29111	PFBSTM	COAL-PF	14.	2.24	0.261 0.13	35.9	2.73	1.16	2.89	10.61	0.	-3.52	13.86	0.819	4.	19	5
29111	TISTMT	RESIDUA	14.	1.00	0.155 0.13	44.4	3.37	1.43	1.80	15.90	0.	0.	22.51	1.330	-27.	0	60
29111	TISTMT	RESIDUA	14.	3.07	0.312 0.13	89.1	6.76	2.87	2.77	19.73	0.	-5.87	26.25	1.551	-60.	0	71
29111	TISTMT	COAL	14.	1.00	0.155 0.13	65.6	4.98	2.12	3.03	9.23	0.	0.	19.36	1.144	-28.	0	999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
29111	TISTMT	COAL	14.	3.07	0.312	0.13	112.8	8.56	3.64	3.99	11.45	0.	-5.87	21.77	1.286	-58.	0	999
29111	TIHRSG	RESIDUA	14.	1.00	0.088	0.13	58.8	4.35	1.85	2.07	17.17	0.	0.	25.44	1.503	-43.	0	61
29111	TIHRSG	RESIDUA	14.	1.82	0.132	0.13	85.2	6.31	2.68	2.52	19.72	0.	-2.33	28.91	1.708	-66.	0	63
29111	TIHRSG	COAL	14.	1.00	0.088	0.13	82.4	6.25	2.66	3.39	9.97	0.	0.	22.26	1.315	-45.	0	260
29111	TIHRSG	COAL	14.	1.82	0.132	0.13	109.0	8.27	3.52	3.77	11.45	0.	-2.33	24.68	1.458	-65.	0	224
29111	STIRL	DISTILL	14.	1.00	0.106	0.13	22.1	1.63	0.70	1.20	20.62	0.	0.	24.15	1.427	-22.	149	0
29111	STIRL	DISTILL	14.	3.50	0.228	0.13	39.3	2.91	1.24	1.49	29.06	0.	-7.07	27.62	1.632	-40.	0	57
29111	STIRL	RESIDUA	14.	1.00	0.106	0.13	22.1	1.64	0.70	1.20	16.82	0.	0.	20.35	1.202	-10.	-77	0
29111	STIRL	RESIDUA	14.	3.50	0.228	0.13	39.3	2.91	1.24	1.49	23.71	0.	-7.07	22.27	1.316	-24.	0	58
29111	STIRL	COAL	14.	1.00	0.106	0.13	41.3	3.06	1.30	2.39	9.77	0.	0.	16.51	0.976	-7.	7	11
29111	STIRL	COAL	14.	3.50	0.228	0.13	69.4	5.14	2.19	2.99	13.77	0.	-7.07	17.00	1.005	-21.	5	14
29111	HEGT60	COAL-AF	14.	1.00	0.005	0.13	52.3	3.97	1.69	2.61	10.87	0.	0.	19.14	1.131	-21.	0	999
29111	HEGT60	COAL-AF	14.	11.63	0.015	0.13	182.0	13.81	5.87	7.44	39.68	0.	-30.10	36.70	2.169	-138.	0	81
29111	HEGT00	COAL-AF	14.	1.00	0.045	0.13	49.6	3.77	1.60	2.55	10.43	0.	0.	18.34	1.084	-17.	0	999
29111	HEGT00	COAL-AF	14.	2.96	0.090	0.13	72.0	5.46	2.32	3.10	14.87	0.	-5.56	20.20	1.194	-33.	0	999
29111	FCMCCL	COAL	14.	1.00	0.134	0.13	48.4	3.77	1.60	2.72	9.46	0.	0.	17.55	1.037	-14.	3	18
29111	FCMCCL	COAL	14.	5.07	0.335	0.13	83.8	6.51	2.77	4.75	14.74	0.	-11.53	17.25	1.019	-31.	4	14
29111	FCSTCL	COAL	14.	1.00	0.139	0.13	47.4	3.69	1.57	2.72	9.40	0.	0.	17.37	1.027	-13.	3	17
29111	FCSTCL	COAL	14.	7.07	0.389	0.13	97.4	7.57	3.22	5.57	16.93	0.	-17.20	16.09	0.951	-34.	6	12
29111	IGGTST	COAL	14.	1.00	0.108	0.13	46.5	3.61	1.54	2.46	9.74	0.	0.	17.35	1.025	-13.	3	17
29111	IGGTST	COAL	14.	4.82	0.265	0.13	74.9	5.82	2.47	2.71	15.77	0.	-10.81	15.96	0.943	-22.	6	12
29111	GTSOAR	RESIDUA	14.	1.00	0.102	0.13	21.9	1.62	0.69	1.13	16.90	0.	0.	20.34	1.202	-9.	-71	0
29111	GTSOAR	RESIDUA	14.	5.84	0.267	0.13	34.3	2.54	1.08	1.32	30.68	0.	-13.72	21.90	1.294	-20.	0	57
29111	GTAC08	RESIDUA	14.	1.00	0.135	0.13	17.7	1.31	0.56	1.03	16.28	0.	0.	19.17	1.133	-4.	-24	0
29111	GTAC08	RESIDUA	14.	4.11	0.311	0.13	23.5	1.74	0.74	1.01	23.16	0.	-8.80	17.84	1.054	-2.	-55	0
29111	GTAC12	RESIDUA	14.	1.00	0.132	0.13	20.9	1.54	0.66	1.10	16.33	0.	0.	19.63	1.160	-7.	-44	0
29111	GTAC12	RESIDUA	14.	5.17	0.332	0.13	28.2	2.09	0.89	1.14	25.81	0.	-11.81	18.11	1.070	-5.	0	58
29111	GTAC16	RESIDUA	14.	1.00	0.127	0.13	21.3	1.58	0.67	1.11	16.43	0.	0.	19.79	1.169	-8.	-52	0
29111	GTAC16	RESIDUA	14.	6.01	0.336	0.13	32.8	2.43	1.03	1.27	28.31	0.	-14.18	18.87	1.115	-10.	0	60
29111	GTWC16	RESIDUA	14.	1.00	0.119	0.13	21.5	1.59	0.68	1.12	16.59	0.	0.	19.98	1.180	-8.	-58	0
29111	GTWC16	RESIDUA	14.	6.10	0.316	0.13	30.8	2.28	0.97	1.23	29.47	0.	-14.44	19.51	1.153	-11.	0	58
29111	CC1626	RESIDUA	14.	1.00	0.115	0.13	21.6	1.64	0.70	1.21	16.64	0.	0.	20.19	1.193	-9.	-76	0
29111	CC1626	RESIDUA	14.	8.97	0.344	0.13	41.8	3.17	1.35	1.69	37.24	0.	-22.57	20.88	1.233	-21.	0	62
29111	CC1622	RESIDUA	14.	1.00	0.121	0.13	21.4	1.62	0.69	1.20	16.53	0.	0.	20.05	1.185	-9.	-67	0
29111	CC1622	RESIDUA	14.	8.05	0.351	0.13	39.9	3.03	1.29	1.60	33.98	0.	-19.97	19.92	1.177	-17.	0	64
29111	CC1222	RESIDUA	14.	1.00	0.122	0.13	21.0	1.59	0.68	1.20	16.51	0.	0.	19.98	1.181	-8.	-58	0
29111	CC1222	RESIDUA	14.	8.00	0.354	0.13	37.7	2.86	1.22	1.57	33.67	0.	-19.82	19.50	1.152	-15.	0	64
29111	CC0822	RESIDUA	14.	1.00	0.131	0.13	21.1	1.60	0.68	1.20	16.34	0.	0.	19.82	1.171	-8.	-56	0
29111	CC0822	RESIDUA	14.	6.30	0.354	0.13	31.0	2.35	1.00	1.37	28.46	0.	-15.01	18.16	1.073	-7.	0	64
29111	DEHTPM	RESIDUA	14.	1.00	0.111	0.13	27.6	2.04	0.87	1.37	16.73	0.	0.	21.02	1.242	-14.	0	56
29111	DEHTPM	RESIDUA	14.	5.14	0.278	0.13	65.5	4.85	2.06	2.26	27.80	0.	-11.73	25.25	1.492	-45.	0	63
29111	GTSOAD	DISTILL	14.	1.00	0.124	0.13	20.2	1.50	0.64	1.09	20.21	0.	0.	23.44	1.385	-18.	-81	0
29111	GTSOAD	DISTILL	14.	5.05	0.309	0.13	25.0	1.85	0.79	1.06	32.28	0.	-11.47	24.50	1.448	-24.	0	55
29111	GTRA08	DISTILL	14.	1.00	0.102	0.13	22.3	1.66	0.70	1.14	20.71	0.	0.	24.21	1.430	-22.	169	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	O&NDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
29111	GTRA08	DISTILL	14.	9.83	0.311 0.13	54.2	4.02	1.71	1.87	51.40	0.	-25.02	33.98	2.008	-67.	0	57
29111	GTRA12	DISTILL	14.	1.00	0.108 0.13	22.4	1.66	0.70	1.14	20.59	0.	0.	24.08	1.423	-21.	167	0
29111	GTRA12	DISTILL	14.	9.26	0.322 0.13	48.7	3.60	1.53	1.72	48.26	0.	-23.39	31.73	1.875	-58.	0	57
29111	GTRA16	DISTILL	14.	1.00	0.110 0.13	22.8	1.69	0.72	1.15	20.53	0.	0.	24.09	1.423	-22.	999	0
29111	GTRA16	DISTILL	14.	8.41	0.322 0.13	48.0	3.55	1.51	1.69	44.96	0.	-20.98	30.73	1.816	-54.	0	57
29111	GTR208	DISTILL	14.	1.00	0.112 0.13	21.7	1.60	0.68	1.12	20.49	0.	0.	23.90	1.412	-21.	124	0
29111	GTR208	DISTILL	14.	6.69	0.306 0.13	36.9	2.73	1.16	1.39	39.04	0.	-16.13	28.19	1.666	-41.	0	57
29111	GTR212	DISTILL	14.	1.00	0.112 0.13	22.0	1.63	0.69	1.13	20.49	0.	0.	23.94	1.415	-21.	140	0
29111	GTR212	DISTILL	14.	7.19	0.313 0.13	39.7	2.94	1.25	1.47	40.64	0.	-17.53	28.77	1.700	-44.	0	57
29111	GTR216	DISTILL	14.	1.00	0.114 0.13	22.3	1.65	0.70	1.14	20.44	0.	0.	23.93	1.414	-21.	160	0
29111	GTR216	DISTILL	14.	7.41	0.321 0.13	42.6	3.16	1.34	1.54	41.01	0.	-18.14	28.90	1.708	-46.	0	57
29111	GTRW08	DISTILL	14.	1.00	0.087 0.13	22.4	1.66	0.70	1.14	21.05	0.	0.	24.55	1.451	-23.	179	0
29111	GTRW08	DISTILL	14.	11.49	0.275 0.13	57.2	4.24	1.80	1.98	61.09	0.	-29.72	39.40	2.328	-86.	0	57
29111	GTRW12	DISTILL	14.	1.00	0.097 0.13	22.4	1.66	0.70	1.14	20.84	0.	0.	24.33	1.438	-22.	173	0
29111	GTRW12	DISTILL	14.	11.30	0.303 0.13	49.9	3.69	1.57	1.79	57.95	0.	-29.19	35.82	2.116	-71.	0	57
29111	GTRW16	DISTILL	14.	1.00	0.100 0.13	22.7	1.68	0.72	1.15	20.77	0.	0.	24.31	1.436	-22.	206	0
29111	GTRW16	DISTILL	14.	10.16	0.306 0.13	48.4	3.58	1.52	1.73	53.12	0.	-25.95	34.00	2.009	-65.	0	57
29111	GTR308	DISTILL	14.	1.00	0.079 0.13	21.8	1.61	0.69	1.13	21.24	0.	0.	24.67	1.457	-23.	142	0
29111	GTR308	DISTILL	14.	8.54	0.233 0.13	39.0	2.89	1.23	1.49	51.39	0.	-21.35	35.65	2.106	-65.	0	56
29111	GTR312	DISTILL	14.	1.00	0.105 0.13	21.8	1.62	0.69	1.13	20.65	0.	0.	24.08	1.423	-21.	136	0
29111	GTR312	DISTILL	14.	8.45	0.307 0.13	40.3	2.98	1.27	1.50	46.09	0.	-21.09	30.75	1.817	-51.	0	57
29111	GTR316	DISTILL	14.	1.00	0.104 0.13	22.2	1.65	0.70	1.14	20.66	0.	0.	24.15	1.427	-22.	160	0
29111	GTR316	DISTILL	14.	8.30	0.304 0.13	41.4	3.06	1.30	1.53	45.68	0.	-20.67	30.90	1.826	-52.	0	57
29111	FCPADS	DISTILL	14.	1.00	0.082 0.13	24.7	1.83	0.78	2.45	21.16	0.	0.	26.22	1.549	-29.	0	56
29111	FCPADS	DISTILL	14.	17.55	0.279 0.13	141.3	10.46	4.45	27.73	86.17	0.	-46.87	81.95	4.842	-262.	0	59
29111	FCMCDS	DISTILL	14.	1.00	0.110 0.13	25.2	1.87	0.79	2.35	20.52	0.	0.	25.54	1.509	-28.	0	56
29111	FCMCDS	DISTILL	14.	13.88	0.360 0.13	121.2	8.98	3.82	20.74	62.87	0.	-36.49	59.92	3.540	-183.	0	60
29112	ONOCGN	COAL-FG	52.	0.	0. 0.13	77.5	5.88	2.50	3.85	29.02	17.53	0.	58.78	1.000	0.	0	0
29112	STM141	RESIDUA	52.	1.00	0.163 0.13	44.9	3.41	1.45	2.08	56.63	0.	0.	63.57	1.081	1.	-14	0
29112	STM141	RESIDUA	52.	1.16	0.181 0.13	44.0	3.34	1.42	1.80	57.70	0.	-1.70	62.57	1.064	4.	-12	0
29112	STM141	COAL-FG	52.	1.00	0.163 0.13	90.4	6.86	2.92	4.99	32.88	0.	0.	47.65	0.811	29.	48	3
29112	STM141	COAL-FG	52.	1.16	0.181 0.13	93.8	7.11	3.02	4.69	33.50	0.	-1.70	46.64	0.793	30.	43	3
29112	STM141	COAL-AF	52.	1.00	0.163 0.13	72.0	5.47	2.32	4.87	32.88	0.	0.	45.55	0.775	44.	999	0
29112	STM141	COAL-AF	52.	1.16	0.181 0.13	69.6	5.28	2.25	4.50	33.50	0.	-1.70	43.84	0.746	51.	999	0
29112	STM088	RESIDUA	52.	0.76	0.124 0.13	39.8	3.02	1.29	1.69	55.05	4.15	0.	65.20	1.109	-2.	-15	0
29112	STM088	COAL-FG	52.	0.76	0.124 0.13	87.7	6.66	2.83	4.36	31.97	4.15	0.	49.97	0.850	23.	48	2
29112	STM088	COAL-AF	52.	0.76	0.124 0.13	61.3	4.65	1.98	4.20	31.97	4.15	0.	46.94	0.799	45.	999	0
29112	PFBSTM	COAL-PF	52.	1.00	0.158 0.13	91.5	6.95	2.95	6.57	33.08	0.	0.	49.55	0.843	22.	38	3
29112	PFBSTM	COAL-PF	52.	2.10	0.258 0.13	84.8	6.43	2.73	7.86	37.56	0.	-11.60	42.99	0.731	45.	103	1
29112	TISTMT	RESIDUA	52.	1.00	0.160 0.13	126.0	9.56	4.06	4.21	56.83	0.	0.	74.66	1.270	-73.	0	59
29112	TISTMT	RESIDUA	52.	2.89	0.310 0.13	234.2	17.77	7.55	6.71	69.79	0.	-19.90	81.92	1.394	-147.	0	70
29112	TISTMT	COAL	52.	1.00	0.160 0.13	177.6	13.48	5.73	7.18	33.00	0.	0.	59.39	1.010	-50.	4	14
29112	TISTMT	COAL	52.	2.89	0.310 0.13	294.5	22.35	9.50	9.91	40.52	0.	-19.90	62.38	1.061	-115.	3	16
29112	TIHRSG	RESIDUA	52.	1.00	0.091 0.13	160.8	11.91	5.06	4.95	61.51	0.	0.	83.44	1.419	-115.	0	59

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
29112 TIHRSG	RESIDUA	52.	1.74	0.132 0.13	226.2	16.76	7.12	6.28	70.10	0.	-7.83	92.42	1.572	-174.	0	61
29112 TIHRSG	COAL	52.	1.00	0.091 0.13	213.4	16.20	6.89	8.09	35.72	0.	0.	66.89	1.138	-91.	0	999
29112 TIHRSG	COAL	52.	1.74	0.132 0.13	286.6	21.76	9.25	9.61	40.70	0.	-7.83	73.49	1.250	-146.	0	999
29112 STIRL	DISTILL	52.	1.00	0.110 0.13	76.7	5.68	2.42	2.92	73.82	0.	0.	84.85	1.443	-80.	999	0
29112 STIRL	DISTILL	52.	3.35	0.228 0.13	133.8	9.91	4.21	4.15	103.30	0.	-24.70	96.88	1.648	-145.	0	57
29112 STIRL	RESIDUA	52.	1.00	0.110 0.13	76.8	5.69	2.42	2.92	60.22	0.	0.	71.25	1.212	-38.	999	0
29112 STIRL	RESIDUA	52.	3.35	0.228 0.13	134.0	9.93	4.22	4.15	84.27	0.	-24.70	77.88	1.325	-85.	0	59
29112 STIRL	COAL	52.	1.00	0.110 0.13	130.0	9.63	4.09	6.06	34.97	0.	0.	54.75	0.931	-11.	10	8
29112 STIRL	COAL	52.	3.35	0.228 0.13	239.3	17.72	7.53	8.92	48.93	0.	-24.70	58.42	0.994	-74.	5	13
29112 HEGT60	COAL-AF	52.	1.00	0.005 0.13	147.7	11.21	4.77	6.64	39.09	0.	0.	61.70	1.050	-43.	1	25
29112 HEGT60	COAL-AF	52.	11.13	0.015 0.13	545.7	41.41	17.61	22.61	141.06	0.	-106.55	116.13	1.976	-405.	0	83
29112 HEGT00	COAL-AF	52.	1.00	0.047 0.13	130.7	9.92	4.22	6.25	37.43	0.	0.	57.82	0.984	-23.	6	12
29112 HEGT00	COAL-AF	52.	2.83	0.090 0.13	176.8	13.42	5.71	8.12	52.87	0.	-19.30	60.82	1.035	-54.	3	17
29112 FCMCCL	COAL	52.	1.00	0.139 0.13	131.1	10.19	4.33	6.95	33.84	0.	0.	55.31	0.941	-17.	9	9
29112 FCMCCL	COAL	52.	4.85	0.335 0.13	212.3	16.50	7.02	13.65	52.40	0.	-40.52	49.05	0.834	-38.	10	9
29112 FCSTCL	COAL	52.	1.00	0.144 0.13	128.9	10.02	4.26	6.79	33.63	0.	0.	54.70	0.930	-14.	10	9
29112 FCSTCL	COAL	52.	6.70	0.387 0.13	245.9	19.11	8.13	15.82	59.91	0.	-60.01	42.97	0.731	-35.	11	8
29112 IGGTST	COAL	52.	1.00	0.111 0.13	121.7	9.47	4.02	5.43	34.90	0.	0.	53.82	0.916	-7.	12	8
29112 IGGTST	COAL	52.	4.55	0.263 0.13	206.4	16.04	6.82	6.38	55.80	0.	-37.38	47.66	0.811	-29.	11	8
29112 GTSOAR	RESIDUA	52.	1.00	0.105 0.13	58.3	4.32	1.84	2.36	60.54	0.	0.	69.05	1.175	-22.	-31	0
29112 GTSOAR	RESIDUA	52.	5.59	0.267 0.13	110.6	8.19	3.48	3.50	109.06	0.	-48.32	75.91	1.291	-68.	0	57
29112 GTAC08	RESIDUA	52.	1.00	0.140 0.13	55.1	4.08	1.74	2.28	58.21	0.	0.	66.30	1.128	-12.	-23	0
29112 GTAC08	RESIDUA	52.	3.93	0.311 0.13	76.3	5.65	2.40	2.57	82.34	0.	-30.84	62.12	1.057	-9.	-57	0
29112 GTAC12	RESIDUA	52.	1.00	0.136 0.13	56.6	4.19	1.78	2.31	58.42	0.	0.	66.70	1.135	-14.	-25	0
29112 GTAC12	RESIDUA	52.	4.95	0.332 0.13	92.2	6.83	2.90	2.99	91.74	0.	-41.54	62.92	1.070	-19.	0	58
29112 GTAC16	RESIDUA	52.	1.00	0.131 0.13	58.1	4.30	1.83	2.34	58.79	0.	0.	67.26	1.144	-16.	-27	0
29112 GTAC16	RESIDUA	52.	5.75	0.336 0.13	111.3	8.25	3.51	3.49	100.64	0.	-49.96	65.93	1.122	-37.	0	61
29112 GTWC16	RESIDUA	52.	1.00	0.122 0.13	57.1	4.23	1.80	2.32	59.36	0.	0.	67.71	1.152	-17.	-27	0
29112 GTWC16	RESIDUA	52.	5.84	0.316 0.13	97.2	7.20	3.06	3.15	104.77	0.	-50.88	67.29	1.145	-35.	0	57
29112 CC1626	RESIDUA	52.	1.00	0.119 0.13	57.3	4.35	1.85	2.44	59.59	0.	0.	68.23	1.161	-20.	-30	0
29112 CC1626	RESIDUA	52.	8.51	0.342 0.13	128.9	9.78	4.16	4.23	131.74	0.	-78.98	70.93	1.207	-63.	0	61
29112 CC1622	RESIDUA	52.	1.00	0.125 0.13	57.9	4.39	1.87	2.44	59.18	0.	0.	67.89	1.155	-19.	-30	0
29112 CC1622	RESIDUA	52.	7.63	0.350 0.13	132.0	10.02	4.26	4.18	120.25	0.	-69.80	68.90	1.172	-58.	0	64
29112 CC1222	RESIDUA	52.	1.00	0.126 0.13	56.8	4.31	1.83	2.43	59.10	0.	0.	67.68	1.151	-18.	-28	0
29112 CC1222	RESIDUA	52.	7.58	0.352 0.13	123.2	9.35	3.98	4.05	119.14	0.	-69.24	67.27	1.144	-48.	0	64
29112 CC0822	RESIDUA	52.	1.00	0.136 0.13	56.1	4.25	1.81	2.42	58.48	0.	0.	66.95	1.139	-15.	-26	0
29112 CC0822	RESIDUA	52.	5.97	0.352 0.13	94.0	7.13	3.03	3.26	100.68	0.	-52.25	61.86	1.052	-17.	0	62
29112 DEHTPM	RESIDUA	52.	1.00	0.114 0.13	86.0	6.37	2.71	3.21	59.90	0.	0.	72.20	1.228	-45.	0	56
29112 DEHTPM	RESIDUA	52.	4.92	0.278 0.13	225.6	16.71	7.10	6.63	98.80	0.	-41.23	88.01	1.497	-160.	0	63
29112 GTSOAD	DISTILL	52.	1.00	0.128 0.13	54.4	4.03	1.71	2.26	72.33	0.	0.	80.33	1.366	-56.	-49	0
29112 GTSOAD	DISTILL	52.	4.83	0.309 0.13	84.3	6.25	2.66	2.80	114.74	0.	-40.33	86.10	1.465	-88.	0	56
29112 GTRA08	DISTILL	52.	1.00	0.106 0.13	59.8	4.43	1.88	2.39	74.17	0.	0.	82.86	1.410	-66.	-65	0
29112 GTRA08	DISTILL	52.	9.41	0.311 0.13	171.6	12.71	5.40	5.11	182.71	0.	-88.49	117.44	1.998	-227.	0	57
29112 GTRA12	DISTILL	52.	1.00	0.111 0.13	60.3	4.46	1.90	2.40	73.71	0.	0.	82.47	1.403	-65.	-65	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	TAXES + INSNC	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********																
29112 GTRA12	DISTILL	52.	8.86	0.322	0.13	165.6	12.27	5.22	4.94	171.54	0.	-82.69	111.27	1.893	-205.	0 57
29112 GTRA16	DISTILL	52.	1.00	0.114	0.13	61.4	4.55	1.93	2.43	73.51	0.	0.	82.42	1.402	-65.	-69 0
29112 GTRA16	DISTILL	52.	8.05	0.322	0.13	163.5	12.11	5.15	4.87	159.80	0.	-74.13	107.80	1.634	-193.	0 57
29112 GTR208	DISTILL	52.	1.00	0.115	0.13	58.2	4.31	1.83	2.35	73.36	0.	0.	81.85	1.392	-62.	-59 0
29112 GTR208	DISTILL	52.	6.41	0.306	0.13	119.3	8.84	3.76	3.72	138.76	0.	-56.88	98.20	1.671	-142.	0 56
29112 GTR212	DISTILL	52.	1.00	0.115	0.13	59.0	4.37	1.86	2.37	73.36	0.	0.	81.96	1.394	-63.	-61 0
29112 GTR212	DISTILL	52.	6.88	0.313	0.13	128.7	9.53	4.05	3.97	144.47	0.	-61.84	100.18	1.704	-153.	0 57
29112 GTR216	DISTILL	52.	1.00	0.117	0.13	60.2	4.46	1.90	2.40	73.19	0.	0.	81.93	1.394	-63.	-64 0
29112 GTR216	DISTILL	52.	7.09	0.321	0.13	139.0	10.29	4.38	4.23	145.77	0.	-64.04	100.62	1.712	-159.	0 57
29112 GTRW08	DISTILL	52.	1.00	0.090	0.13	62.5	4.63	1.97	2.46	75.44	0.	0.	84.50	1.437	-73.	-78 0
29112 GTRW08	DISTILL	52.	11.00	0.275	0.13	159.9	11.84	5.03	4.87	217.17	0.	-105.18	133.73	2.275	-272.	0 57
29112 GTRW12	DISTILL	52.	1.00	0.100	0.13	62.5	4.63	1.97	2.45	74.64	0.	0.	83.69	1.424	-70.	-76 0
29112 GTRW12	DISTILL	52.	10.82	0.303	0.13	158.1	11.71	4.98	4.81	206.01	0.	-103.30	124.20	2.113	-242.	0 57
29112 GTRW16	DISTILL	52.	1.00	0.103	0.13	59.8	4.43	1.88	2.39	74.38	0.	0.	83.08	1.413	-67.	-66 0
29112 GTRW16	DISTILL	52.	9.73	0.306	0.13	153.3	11.36	4.83	4.66	188.81	0.	-91.79	117.86	2.005	-220.	0 57
29112 GTR308	DISTILL	52.	1.00	0.082	0.13	58.0	4.30	1.83	2.36	76.12	0.	0.	84.60	1.439	-71.	-64 0
29112 GTR308	DISTILL	52.	8.17	0.233	0.13	130.0	9.63	4.09	4.07	182.67	0.	-75.43	125.03	2.127	-231.	0 56
29112 GTR312	DISTILL	52.	1.00	0.108	0.13	57.8	4.28	1.82	2.34	73.95	0.	0.	82.39	1.402	-64.	-59 0
29112 GTR312	DISTILL	52.	8.08	0.307	0.13	129.7	9.60	4.08	4.03	163.84	0.	-74.53	107.02	1.821	-174.	0 56
29112 GTR316	DISTILL	52.	1.00	0.108	0.13	58.7	4.35	1.85	2.36	73.99	0.	0.	82.55	1.404	-65.	-61 0
29112 GTR316	DISTILL	52.	7.94	0.304	0.13	133.3	9.87	4.20	4.12	162.38	0.	-73.03	107.53	1.829	-178.	0 57
29112 FCPADS	DISTILL	52.	1.00	0.085	0.13	77.8	5.76	2.45	7.71	75.85	0.	0.	91.78	1.561	-103.	999 0
29112 FCPADS	DISTILL	52.	16.79	0.279	0.13	459.1	34.01	14.46	96.88	306.31	0.	-166.16	285.50	4.857	-901.	0 59
29112 FCNCDS	DISTILL	52.	1.00	0.114	0.13	79.6	5.90	2.51	7.36	73.47	0.	0.	89.24	1.518	-96.	0 56
29112 FCNCDS	DISTILL	52.	13.28	0.360	0.13	397.3	29.43	12.51	72.32	223.49	0.	-129.24	208.51	3.547	-627.	0 60
29113 ONOCON	COAL-FG	126.	0.	0.	0.14	167.8	12.73	5.41	7.69	66.22	42.49	0.	134.54	1.000	0.	0 0
29113 STM141	RESIDUA	126.	1.00	0.170	0.14	100.3	7.61	3.24	3.75	130.17	0.	0.	144.77	1.076	1.	-14 0
29113 STM141	RESIDUA	126.	1.16	0.189	0.14	96.1	7.29	3.10	3.30	132.72	0.	-4.03	142.38	1.058	10.	-12 0
29113 STM141	COAL-FG	126.	1.00	0.170	0.14	202.1	15.33	6.52	9.85	75.58	0.	0.	107.28	0.797	69.	45 3
29113 STM141	COAL-FG	126.	1.16	0.189	0.14	206.5	15.67	6.66	9.50	77.06	0.	-4.03	104.86	0.779	74.	44 3
29113 STM141	COAL-AF	126.	1.00	0.170	0.14	150.5	11.42	4.86	9.51	75.58	0.	0.	101.37	0.753	112.	999 0
29113 STM141	COAL-AF	126.	1.16	0.189	0.14	145.2	11.02	4.69	9.10	77.06	0.	-4.03	97.84	0.727	126.	999 0
29113 STM088	RESIDUA	126.	0.78	0.133	0.14	84.5	6.41	2.73	3.00	126.61	9.39	0.	148.14	1.101	-2.	-15 0
29113 STM088	COAL-FG	126.	0.78	0.133	0.14	182.0	13.81	5.87	8.49	73.51	9.39	0.	111.07	0.826	67.	82 2
29113 STM088	COAL-AF	126.	0.78	0.133	0.14	137.8	10.46	4.45	8.70	73.51	9.39	0.	106.50	0.792	102.	999 0
29113 PFBSTM	COAL-PF	126.	1.00	0.165	0.14	174.4	13.24	5.63	12.85	76.03	0.	0.	107.75	0.801	80.	179 1
29113 PFBSTM	COAL-PF	126.	2.05	0.263	0.14	191.1	14.50	6.16	17.06	86.32	0.	-26.74	97.30	0.723	104.	78 2
29113 TISTMT	RESIDUA	126.	1.00	0.167	0.14	251.8	19.11	8.13	7.71	130.64	0.	0.	165.59	1.231	-137.	0 58
29113 TISTMT	RESIDUA	126.	2.80	0.314	0.14	566.8	43.01	18.29	15.39	160.54	0.	-45.93	191.29	1.422	-369.	0 71
29113 TISTMT	COAL	126.	1.00	0.167	0.14	352.7	26.77	11.38	13.55	75.86	0.	0.	127.55	0.948	-67.	8 10
29113 TISTMT	COAL	126.	2.80	0.314	0.14	715.0	54.26	23.07	22.61	93.21	0.	-45.93	147.21	1.094	-302.	3 18
29113 TIHRSG	RESIDUA	126.	1.00	0.095	0.14	368.9	27.32	11.62	10.45	142.00	0.	0.	191.39	1.423	-270.	0 60
29113 TIHRSG	RESIDUA	126.	1.64	0.132	0.14	545.4	40.40	17.17	14.47	159.97	0.	-16.39	215.62	1.603	-428.	0 62
29113 TIHRSG	COAL	126.	1.00	0.095	0.14	496.2	37.65	16.01	17.30	82.45	0.	0.	153.41	1.140	-217.	0 999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
			********** LEVELIZED ANNUAL ENERGY COSTS ($ MILLIONS) **********														
29113	TIHRSG	COAL	126.	1.64	0.132 0.14	693.2	52.60	22.37	21.96	92.88	0.	-16.39	173.43	1.289	-374.	0	999
29113	STIRL	DISTILL	126.	1.00	0.115 0.14	167.0	12.37	5.26	5.52	170.24	0.	0.	193.38	1.437	-182.	999	0
29113	STIRL	DISTILL	126.	3.15	0.228 0.14	284.5	21.07	8.96	8.19	235.75	0.	-54.87	219.09	1.628	-317.	0	57
29113	STIRL	RESIDUA	126.	1.00	0.115 0.14	167.2	12.38	5.26	5.52	138.88	0.	0.	162.04	1.204	-84.	999	0
29113	STIRL	RESIDUA	126.	3.15	0.228 0.14	284.9	21.10	8.97	8.20	192.32	0.	-54.87	175.72	1.306	-182.	0	58
29113	STIRL	COAL	126.	1.00	0.115 0.14	295.2	21.87	9.30	12.33	80.64	0.	0.	124.13	0.923	-25.	11	8
29113	STIRL	COAL	126.	3.15	0.228 0.14	524.2	38.83	16.51	18.69	111.67	0.	-54.87	130.82	0.972	-154.	6	12
29113	HEGT60	COAL-AF	126.	1.00	0.005 0.14	286.7	21.76	9.25	12.73	90.62	0.	0.	134.35	0.999	-57.	5	13
29113	HEGT60	COAL-AF	126.	10.48	0.015 0.14	1279.6	97.10	41.28	51.49	321.90	0.	-241.67	270.11	2.008	-960.	0	83
29113	HEGT00	COAL-AF	126.	1.00	0.049 0.14	256.3	19.45	8.27	12.09	86.61	0.	0.	126.42	0.940	-17.	11	8
29113	HEGT00	COAL-AF	126.	2.67	0.090 0.14	387.4	29.40	12.50	17.45	120.65	0.	-42.55	137.45	1.022	-115.	4	16
29113	FCMCCL	COAL	126.	1.00	0.145 0.14	272.8	21.21	9.02	14.12	77.90	0.	0.	122.25	0.909	-16.	12	8
29113	FCMCCL	COAL	126.	4.57	0.335 0.14	367.0	28.54	12.13	27.43	119.58	0.	-90.99	96.68	0.719	17.	16	6
29113	FCSTCL	COAL	126.	1.00	0.151 0.14	269.6	20.96	8.91	13.65	77.37	0.	0.	120.90	0.899	-10.	13	7
29113	FCSTCL	COAL	126.	6.42	0.390 0.14	430.9	33.50	14.24	32.01	137.77	0.	-138.08	79.44	0.590	39.	17	6
29113	IGGTST	COAL	126.	1.00	0.117 0.14	255.8	19.89	8.46	10.27	80.41	0.	0.	119.02	0.885	3.	15	6
29113	IGGTST	COAL	126.	4.38	0.267 0.14	419.5	32.62	13.87	12.06	128.34	0.	-86.12	100.76	0.749	-19.	13	7
29113	GTSOAR	RESIDUA	126.	1.00	0.110 0.14	129.3	9.57	4.07	4.44	139.65	0.	0.	157.73	1.172	-52.	-34	0
29113	GTSOAR	RESIDUA	126.	5.27	0.267 0.14	228.6	16.94	7.20	6.70	248.88	0.	-108.80	170.92	1.270	-140.	0	57
29113	GTAC08	RESIDUA	126.	1.00	0.146 0.14	115.4	8.54	3.63	4.08	134.00	0.	0.	150.25	1.117	-22.	-21	0
29113	GTAC08	RESIDUA	126.	3.70	0.311 0.14	153.0	11.33	4.82	4.71	187.90	0.	-68.90	139.87	1.040	-7.	-21	0
29113	GTAC12	RESIDUA	126.	1.00	0.143 0.14	119.2	8.83	3.75	4.17	134.50	0.	0.	151.25	1.124	-27.	-23	0
29113	GTAC12	RESIDUA	126.	4.66	0.332 0.14	188.3	13.95	5.93	5.63	209.37	0.	-93.32	141.56	1.052	-29.	0	57
29113	GTAC16	RESIDUA	126.	1.00	0.137 0.14	125.8	9.31	3.96	4.33	135.41	0.	0.	153.01	1.137	-36.	-27	0
29113	GTAC16	RESIDUA	126.	5.41	0.336 0.14	225.1	16.67	7.09	6.58	229.68	0.	-112.54	147.48	1.096	-65.	0	60
29113	GTWC16	RESIDUA	126.	1.00	0.128 0.14	121.6	9.01	3.83	4.23	136.80	0.	0.	153.87	1.144	-37.	-26	0
29113	GTWC16	RESIDUA	126.	5.50	0.316 0.14	191.3	14.17	6.02	5.75	239.09	0.	-114.64	150.40	1.118	-58.	0	56
29113	CC1626	RESIDUA	126.	1.00	0.125 0.14	122.1	9.26	3.94	4.38	137.29	0.	0.	154.87	1.151	-41.	-29	0
29113	CC1626	RESIDUA	126.	8.13	0.344 0.14	258.3	19.60	8.33	7.86	303.01	0.	-181.79	157.02	1.167	-113.	0	61
29113	CC1622	RESIDUA	126.	1.00	0.131 0.14	125.3	9.51	4.04	4.43	136.31	0.	0.	154.29	1.147	-41.	-30	0
29113	CC1622	RESIDUA	126.	7.30	0.352 0.14	275.7	20.92	8.90	8.02	276.53	0.	-160.62	153.75	1.143	-112.	0	64
29113	CC1222	RESIDUA	126.	1.00	0.132 0.14	122.9	9.33	3.97	4.40	136.11	0.	0.	153.80	1.143	-39.	-28	0
29113	CC1222	RESIDUA	126.	7.25	0.355 0.14	256.0	19.43	8.26	7.75	274.03	0.	-159.40	150.07	1.115	-9?.	0	64
29113	CC0822	RESIDUA	126.	1.00	0.142 0.14	120.5	9.15	3.89	4.35	134.60	0.	0.	151.98	1.130	-32.	-25	0
29113	CC0822	RESIDUA	126.	5.72	0.355 0.14	199.4	15.13	6.43	6.24	231.58	0.	-120.30	139.07	1.034	-29.	0	65
29113	DEHTPM	RESIDUA	126.	1.00	0.120 0.14	192.4	14.25	6.06	6.23	108.10	0.	0.	164.64	1.224	-104.	0	56
29113	DEHTPM	RESIDUA	126.	4.63	0.278 0.14	483.4	35.80	15.22	13.41	225.47	0.	-92.60	197.31	1.467	-342.	0	63
29113	GTSOAD	DISTILL	126.	1.00	0.134 0.14	117.0	8.67	3.69	4.12	166.61	0.	0.	183.08	1.361	-126.	-50	0
29113	GTSOAD	DISTILL	126.	4.55	0.309 0.14	162.7	12.05	5.12	5.00	261.84	0.	-90.56	193.45	1.438	-180.	999	0
29113	GTRA08	DISTILL	126.	1.00	0.110 0.14	132.9	9.84	4.19	4.51	171.07	0.	0.	189.61	1.409	-154.	-73	0
29113	GTRA00	DISTILL	126.	8.66	0.311 0.14	361.2	26.75	11.37	10.13	416.95	0.	-200.45	264.76	1.968	-496.	0	57
29113	GTRA12	DISTILL	126.	1.00	0.116 0.14	129.4	9.58	4.07	4.42	169.96	0.	0.	188.04	1.398	-147.	-66	0
29113	GTRA12	DISTILL	126.	8.34	0.322 0.14	345.6	25.60	10.88	9.72	391.46	0.	-187.22	250.43	1.861	-444.	0	57
29113	GTRA16	DISTILL	126.	1.00	0.119 0.14	131.6	9.74	4.14	4.47	169.48	0.	0.	187.84	1.396	-148.	-69	0

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
29113	GTRA16	DISTILL	126.	7.58	0.322 0.14	338.1	25.04	10.65	9.50	364.69	0.	-167.70	242.18	1.800	-415.	0	57
29113	GTR208	DISTILL	126.	1.00	0.121 0.14	129.2	9.57	4.07	4.42	169.12	0.	0.	187.17	1.391	-145.	-65	0
29113	GTR208	DISTILL	126.	6.03	0.306 0.14	248.5	18.41	7.83	7.21	316.66	0.	-128.31	221.79	1.648	-309.	0	56
29113	GTR212	DISTILL	126.	1.00	0.121 0.14	126.7	9.38	3.99	4.36	169.12	0.	0.	186.85	1.389	-142.	-62	0
29113	GTR212	DISTILL	126.	6.46	0.313 0.14	269.0	19.93	8.47	7.74	329.69	0.	-139.65	226.18	1.681	-332.	0	57
29113	GTR216	DISTILL	126.	1.00	0.123 0.14	129.5	9.59	4.08	4.42	168.70	0.	0.	186.78	1.388	-144.	-65	0
29113	GTR216	DISTILL	126.	6.68	0.321 0.14	292.2	21.65	9.20	8.32	332.65	0.	-144.67	227.15	1.688	-346.	0	57
29113	GTRW08	DISTILL	126.	1.00	0.094 0.14	127.0	9.41	4.00	4.37	174.15	0.	0.	191.93	1.427	-159.	-67	0
29113	GTRW08	DISTILL	126.	10.36	0.275 0.14	347.3	25.73	10.94	9.85	495.59	0.	-238.55	303.57	2.256	-611.	0	57
29113	GTRW12	DISTILL	126.	1.00	0.104 0.14	126.9	9.40	4.00	4.36	172.22	0.	0.	189.97	1.412	-152.	-65	0
29113	GTRW12	DISTILL	126.	10.19	0.303 0.14	335.3	24.84	10.56	9.53	470.12	0.	-234.25	280.80	2.087	-534.	0	57
29113	GTRW16	DISTILL	126.	1.00	0.108 0.14	130.2	9.64	4.10	4.44	171.58	0.	0.	189.77	1.410	-153.	-69	0
29113	GTRW16	DISTILL	126.	9.16	0.306 0.14	318.3	23.58	10.02	9.07	430.87	0.	-207.99	265.56	1.974	-479.	0	57
29113	GTR308	DISTILL	126.	1.00	0.086 0.14	121.6	9.01	3.83	4.25	175.81	0.	0.	192.89	1.434	-159.	-62	0
29113	GTR308	DISTILL	126.	7.69	0.233 0.14	259.9	19.25	8.19	7.60	416.87	0.	-170.66	281.25	2.090	-501.	0	56
29113	GTR312	DISTILL	126.	1.00	0.113 0.14	123.2	9.13	3.88	4.27	170.55	0.	0.	187.83	1.396	-144.	-59	0
29113	GTR312	DISTILL	126.	7.61	0.307 0.14	261.4	19.36	8.23	7.59	373.88	0.	-168.59	240.48	1.787	-373.	0	56
29113	GTR316	DISTILL	126.	1.00	0.113 0.14	124.8	9.24	3.93	4.31	170.66	0.	0.	188.13	1.398	-146.	-61	0
29113	GTR316	DISTILL	126.	7.48	0.304 0.14	269.4	19.96	8.48	7.79	370.55	0.	-165.18	241.61	1.796	-381.	0	56
29113	FCPADS	DISTILL	126.	1.00	0.089 0.14	170.6	12.63	5.37	17.46	175.16	0.	0.	210.62	1.566	-239.	999	0
29113	FCPADS	DISTILL	126.	15.82	0.279 0.14	1007.8	74.64	31.73	219.61	699.03	0.	-377.70	647.32	4.811	-2026.	0	59
29113	FCMCDS	DISTILL	126.	1.00	0.119 0.14	175.4	12.99	5.52	16.62	169.39	0.	0.	204.53	1.520	-222.	0	56
29113	FCMCDS	DISTILL	126.	12.51	0.360 0.14	880.1	65.19	27.71	163.96	510.02	0.	-293.45	473.43	3.519	-1414.	0	60
33121	ONOCGN	COAL-AF	60.	0.	0. 2.20	7.4	0.56	0.24	0.65	1.55	15.47	0.	18.47	1.000	0.	0	0
33121	STM141	RESIDUA	60.	0.05	0.027 2.20	5.4	0.41	0.17	0.45	2.96	14.70	0.	18.69	1.012	0.	-12	0
33121	STM141	COAL-FG	60.	0.05	0.027 2.20	10.8	0.82	0.35	0.80	1.72	14.70	0.	18.39	0.995	-1.	7	11
33121	STM141	COAL-AF	60.	0.05	0.027 2.20	8.5	0.64	0.27	0.70	1.72	14.70	0.	18.04	0.976	1.	27	4
33121	STM088	RESIDUA	60.	0.03	0.014 2.20	4.6	0.35	0.15	0.42	2.83	15.05	0.	18.81	1.018	0.	-13	0
33121	STM088	COAL-FG	60.	0.03	0.014 2.20	9.8	0.75	0.32	0.76	1.64	15.05	0.	18.52	1.003	-1.	3	17
33121	STM088	COAL-AF	60.	0.03	0.014 2.20	7.9	0.60	0.26	0.67	1.64	15.05	0.	18.23	0.987	1.	30	4
33121	PFBSTM	COAL-PF	60.	0.11	0.054 2.20	13.8	1.05	0.45	1.00	1.93	13.84	0.	18.27	0.989	-2.	7	11
33121	TISTMT	RESIDUA	60.	0.15	0.078 2.20	30.3	2.30	0.98	1.09	3.58	13.15	0.	21.10	1.142	-19.	0	85
33121	TISTMT	COAL	60.	0.15	0.078 2.20	38.7	2.94	1.25	1.53	2.08	13.15	0.	20.94	1.134	-23.	0	999
33121	TIHRSG	RESIDUA	60.	0.10	0.033 2.20	29.8	2.20	0.94	0.98	3.68	13.87	0.	21.67	1.173	-20.	0	69
33121	TIHRSG	COAL	60.	0.10	0.033 2.20	38.3	2.91	1.24	1.43	2.14	13.87	0.	21.58	1.168	-25.	0	116
33121	STIRL	DISTILL	60.	0.21	0.077 2.20	10.5	0.78	0.33	0.57	5.58	12.22	0.	19.47	1.054	-4.	0	58
33121	STIRL	RESIDUA	60.	0.21	0.077 2.20	10.5	0.78	0.33	0.57	4.55	12.22	0.	18.45	0.999	-1.	6	12
33121	STIRL	COAL	60.	0.21	0.077 2.20	17.9	1.33	0.57	1.01	2.64	12.22	0.	17.76	0.961	-3.	10	9
33121	HEGT60	COAL-AF	60.	0.58	0.029 2.20	61.4	4.66	1.98	2.28	6.51	6.47	0.	21.90	1.185	-37.	0	999
33121	HEGT60	COAL-AF	60.	0.17	0.027 2.20	26.7	2.02	0.86	1.11	2.80	12.85	0.	19.64	1.063	-13.	0	999
33121	FCMCCL	COAL	60.	0.29	0.133 2.20	30.7	2.39	1.02	1.50	2.79	10.94	0.	18.64	1.009	-12.	4	14
33121	FCSTCL	COAL	60.	0.37	0.174 2.20	34.3	2.67	1.13	1.75	3.08	9.70	0.	18.32	0.992	-13.	5	13
33121	IGGTST	COAL	60.	0.25	0.087 2.20	28.1	2.18	0.93	1.25	2.86	11.65	0.	18.87	1.021	-11.	3	17
33121	GTSOAR	RESIDUA	60.	0.33	0.117 2.20	11.4	0.84	0.36	0.56	5.70	10.34	0.	17.81	0.964	0.	16	6

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
33121 GTAC08	RESIDUA	60.	0.24	0.108 2.20	8.3	0.62	0.26	0.46	4.39	11.80	0.	17.53	0.949	3.	67	2
33121 GTAC12	RESIDUA	60.	0.30	0.133 2.20	9.7	0.72	0.30	0.50	4.90	10.84	0.	17.26	0.935	3.	36	3
33121 GTAC16	RESIDUA	60.	0.35	0.149 2.20	11.1	0.82	0.35	0.55	5.35	10.12	0.	17.18	0.930	2.	26	4
33121 GTWC16	RESIDUA	60.	0.35	0.141 2.20	11.3	0.83	0.35	0.56	5.59	10.01	0.	17.35	0.939	2.	23	5
33121 CC1626	RESIDUA	60.	0.48	0.183 2.20	13.7	1.04	0.44	0.75	6.76	8.09	0.	17.08	0.925	1.	18	6
33121 CC1622	RESIDUA	60.	0.43	0.173 2.20	12.9	0.98	0.41	0.71	6.17	8.87	0.	17.14	0.928	2.	19	5
33121 CC1222	RESIDUA	60.	0.42	0.173 2.20	12.2	0.92	0.39	0.70	6.11	8.93	0.	17.05	0.923	2.	22	5
33121 CC0822	RESIDUA	60.	0.33	0.144 2.20	10.5	0.80	0.34	0.64	5.16	10.38	0.	17.31	0.937	2.	26	4
33121 DEADV3	RESIDUA	60.	0.99	0.262 2.20	40.1	2.97	1.26	1.46	13.31	0.16	0.	19.16	1.037	-17.	3	17
33121 DEHTPM	RESIDUA	60.	0.31	0.121 2.20	17.0	1.26	0.53	0.80	5.29	10.69	0.	18.57	1.005	-5.	4	15
33121 DESOA3	DISTILL	60.	1.00	0.218 2.20	51.1	3.79	1.61	1.87	17.50	0.	0.	24.76	1.341	-40.	0	70
33121 DESOA3	DISTILL	60.	1.20	0.224 2.20	59.8	4.43	1.88	1.99	20.39	0.	-1.89	26.80	1.451	-51.	0	67
33121 DESOA3	RESIDUA	60.	1.00	0.218 2.20	51.1	3.79	1.61	1.87	14.27	0.	0.	21.54	1.166	-30.	0	999
33121 DESOA3	RESIDUA	60.	1.20	0.224 2.20	59.8	4.43	1.88	1.99	16.63	0.	-1.89	23.05	1.248	-39.	0	269
33121 GTSOAD	DISTILL	60.	0.29	0.122 2.20	8.8	0.65	0.28	0.48	6.11	10.96	0.	18.48	1.000	-1.	4	13
33121 GTRA08	DISTILL	60.	0.55	0.194 2.20	16.0	1.19	0.50	0.71	9.35	7.03	0.	18.78	1.017	-5.	1	23
33121 GTRA12	DISTILL	60.	0.52	0.193 2.20	15.8	1.17	0.50	0.70	8.86	7.45	0.	18.67	1.011	-4.	2	18
33121 GTRA16	DISTILL	60.	0.47	0.180 2.20	15.7	1.16	0.49	0.69	8.31	8.13	0.	18.79	1.017	-5.	1	24
33121 GTR208	DISTILL	60.	0.38	0.146 2.20	12.1	0.89	0.38	0.58	7.29	9.57	0.	18.72	1.013	-3.	0	999
33121 GTR212	DISTILL	60.	0.41	0.157 2.20	13.0	0.96	0.41	0.61	7.59	9.14	0.	18.71	1.013	-3.	0	28
33121 GTR216	DISTILL	60.	0.42	0.164 2.20	13.8	1.02	0.43	0.63	7.64	8.96	0.	18.69	1.012	-4.	1	22
33121 GTRW08	DISTILL	60.	0.64	0.194 2.20	17.4	1.29	0.55	0.76	11.18	5.55	0.	19.32	1.046	-7.	0	201
33121 GTRW12	DISTILL	60.	0.64	0.212 2.20	17.2	1.28	0.54	0.75	10.69	5.63	0.	18.89	1.023	-6.	0	27
33121 GTRW16	DISTILL	60.	0.58	0.197 2.20	16.9	1.25	0.53	0.74	9.87	6.56	0.	18.95	1.026	-6.	0	999
33121 GTR308	DISTILL	60.	0.48	0.133 2.20	13.9	1.03	0.44	0.66	9.50	8.03	0.	19.64	1.063	-7.	0	63
33121 GTR312	DISTILL	60.	0.48	0.173 2.20	13.9	1.03	0.44	0.65	8.66	7.98	0.	18.75	1.015	-4.	0	28
33121 GTR316	DISTILL	60.	0.48	0.169 2.20	14.3	1.06	0.45	0.66	8.59	8.11	0.	18.87	1.021	-4.	0	999
33121 FCPADS	DISTILL	60.	1.00	0.279 2.20	36.3	2.69	1.14	5.62	16.15	0.	0.	25.60	1.386	-36.	0	65
33121 FCPADS	DISTILL	60.	1.02	0.279 2.20	36.8	2.73	1.16	5.64	16.35	0.	-0.14	25.73	1.393	-37.	0	65
33121 FCMCDS	DISTILL	60.	0.80	0.299 2.20	31.4	2.33	0.99	4.26	11.93	3.04	0.	22.55	1.221	-24.	0	75
33251 ONOCGN	COAL-FG	280.	0.	0. 1.05	53.1	4.03	1.71	2.64	7.69	72.21	0.	88.29	1.000	0.	0	0
33251 STM141	RESIDUA	280.	0.11	0.056 1.05	31.6	2.40	1.02	1.41	16.15	64.57	0.	85.55	0.969	19.	999	0
33251 STM141	COAL-FG	280.	0.11	0.056 1.05	62.1	4.72	2.00	3.13	9.38	64.57	0.	83.80	0.949	10.	31	4
33251 STM141	COAL-AF	280.	0.11	0.056 1.05	42.3	3.21	1.36	2.78	9.38	64.57	0.	81.30	0.921	27.	999	0
33251 STM088	RESIDUA	280.	0.06	0.031 1.05	28.1	2.13	0.91	1.31	14.83	68.03	0.	87.22	0.988	15.	-1	0
33251 STM088	COAL-FG	280.	0.06	0.031 1.05	57.6	4.37	1.86	2.92	8.61	68.03	0.	85.79	0.972	6.	34	3
33251 STM088	COAL-AF	280.	0.06	0.031 1.05	40.1	3.04	1.29	2.67	8.61	68.03	0.	83.65	0.947	21.	999	0
33251 PFDSTN	COAL-PF	280.	0.22	0.112 1.05	62.0	4.71	2.00	4.80	11.49	56.14	0.	79.13	0.896	24.	54	2
33251 TISTMT	RESIDUA	280.	0.16	0.083 1.05	113.0	8.58	3.65	3.78	17.79	60.63	0.	94.42	1.069	-48.	0	105
33251 TISTMT	COAL	280.	0.32	0.164 1.05	211.4	16.04	6.82	6.99	12.90	49.35	0.	92.10	1.043	-88.	3	18
33251 TIHRSG	RESIDUA	280.	0.11	0.035 1.05	111.7	8.27	3.52	3.60	18.30	64.23	0.	97.92	1.109	-57.	0	66
33251 TIHRSG	COAL	280.	0.22	0.069 1.05	210.7	15.99	6.80	6.88	13.49	56.45	0.	99.59	1.128	-111.	0	999
33251 STIRL	DISTILL	280.	0.22	0.081 1.05	65.9	4.88	2.07	2.58	27.72	56.03	0.	93.28	1.057	-21.	0	58
33251 STIRL	RESIDUA	280.	0.22	0.081 1.05	65.9	4.88	2.08	2.58	22.61	56.03	0.	88.18	0.999	-5.	6	12

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
33251 STIRL	COAL	280.	0.44	0.159 1.05	167.2	12.39	5.27	6.16	18.43	40.26	0.	82.50	0.934	-35.	9	10
33251 HEGT60	COAL-AF	280.	1.00	0.049 1.05	279.5	21.21	9.02	11.27	47.48	0.	0.	88.98	1.008	-111.	5	14
33251 HEGT60	COAL-AF	280.	1.22	0.051 1.05	376.5	28.57	12.15	13.86	56.35	0.	-9.66	101.27	1.147	-196.	1	24
33251 HEGT00	COAL-AF	280.	0.36	0.057 1.05	134.2	10.19	4.33	5.53	19.93	46.44	0.	86.41	0.979	-33.	7	11
33251 FCMCCL	COAL	280.	0.62	0.127 1.05	160.3	12.46	5.30	8.67	27.38	27.75	0.	81.56	0.924	-33.	9	9
33251 FCSTCL	COAL	280.	0.79	0.214 1.05	179.1	13.92	5.92	9.73	30.19	15.51	0.	75.28	0.853	-22.	11	8
33251 IGGTST	COAL	280.	0.52	0.032 1.05	142.1	11.04	4.70	4.63	28.09	34.62	0.	83.08	0.941	-28.	9	9
33251 GTSOAR	RESIDUA	280.	0.35	0.123 1.05	55.1	4.08	1.74	2.26	28.34	46.73	0.	83.14	0.942	16.	999	1
33251 GTAC08	RESIDUA	280.	0.25	0.114 1.05	45.5	3.37	1.43	1.97	21.83	53.94	0.	82.53	0.935	22.	999	0
33251 GTAC12	RESIDUA	280.	0.32	0.141 1.05	51.2	3.79	1.61	2.13	24.33	49.20	0.	81.06	0.918	24.	999	0
33251 GTAC16	RESIDUA	280.	0.37	0.157 1.05	56.5	4.18	1.78	2.28	26.56	45.60	0.	80.41	0.911	24.	178	1
33251 GTWC16	RESIDUA	280.	0.38	0.149 1.05	53.8	3.98	1.69	2.22	27.78	45.07	0.	80.75	0.915	24.	999	0
33251 CC1626	RESIDUA	280.	1.00	0.232 1.05	86.4	6.56	2.79	3.09	66.07	0.	0.	78.51	0.889	15.	22	5
33251 CC1626	RESIDUA	280.	0.51	0.194 1.05	61.4	4.66	1.98	2.60	33.60	35.49	0.	78.33	0.887	27.	63	2
33251 CC1622	RESIDUA	280.	0.46	0.182 1.05	62.2	4.72	2.01	2.57	30.69	39.34	0.	79.33	0.899	24.	53	2
33251 CC1222	RESIDUA	280.	0.45	0.182 1.05	59.6	4.52	1.92	2.53	30.38	39.63	0.	78.99	0.895	26.	73	2
33251 CC0822	RESIDUA	280.	0.35	0.153 1.05	49.5	3.76	1.60	2.24	25.68	46.85	0.	80.13	0.908	27.	999	0
33251 DEADV3	RESIDUA	280.	1.00	0.262 1.05	198.4	14.69	6.25	6.14	63.44	0.	0.	90.52	1.025	-74.	4	16
33251 DEADV3	RESIDUA	280.	1.05	0.265 1.05	207.3	15.35	6.53	6.37	66.13	0.	-2.32	92.06	1.043	-83.	2	18
33251 DEHTPM	RESIDUA	280.	0.33	0.127 1.05	97.2	7.20	3.06	3.49	26.27	48.43	0.	88.44	1.002	-20.	5	14
33251 DESOA3	DISTILL	280.	1.00	0.216 1.05	244.0	18.07	7.68	7.31	82.63	0.	0.	115.69	1.310	-175.	0	70
33251 DESOA3	DISTILL	280.	1.28	0.224 1.05	303.5	22.48	9.56	8.85	101.28	0.	-12.17	129.99	1.472	-247.	0	66
33251 DESOA3	RESIDUA	280.	1.00	0.216 1.05	244.0	18.07	7.68	7.31	67.41	0.	0.	100.47	1.138	-127.	0	999
33251 DESOA3	RESIDUA	280.	1.28	0.224 1.05	303.5	22.48	9.56	8.85	82.62	0.	-12.17	111.33	1.261	-189.	0	152
33251 GTSOAD	DISTILL	280.	0.31	0.129 1.05	47.2	3.49	1.49	2.04	30.36	49.79	0.	87.16	0.987	7.	999	0
33251 GTRA08	DISTILL	280.	1.00	0.242 1.05	107.8	7.99	3.40	3.61	79.96	0.	0.	94.95	1.076	-46.	0	76
33251 GTRA08	DISTILL	280.	0.58	0.205 1.05	79.3	5.87	2.50	2.92	46.47	30.24	0.	88.00	0.997	-11.	6	12
33251 GTRA12	DISTILL	280.	1.00	0.244 1.05	108.2	8.02	3.41	3.59	79.73	0.	0.	94.75	1.073	-45.	0	78
33251 GTRA12	DISTILL	280.	0.55	0.204 1.05	76.9	5.70	2.42	2.85	44.03	32.33	0.	87.33	0.989	-7.	8	10
33251 GTRA16	DISTILL	280.	0.50	0.190 1.05	76.4	5.66	2.41	2.82	41.30	35.75	0.	87.94	0.996	-9.	6	12
33251 GTR208	DISTILL	280.	0.41	0.154 1.05	58.3	4.32	1.83	2.34	36.21	42.90	0.	87.60	0.992	0.	16	6
33251 GTR212	DISTILL	280.	0.44	0.165 1.05	61.5	4.55	1.94	2.43	37.68	40.75	0.	87.35	0.989	-0.	14	7
33251 GTR216	DISTILL	280.	0.45	0.173 1.05	64.9	4.81	2.04	2.52	37.97	39.84	0.	87.18	0.987	-1.	12	8
33251 GTRW08	DISTILL	280.	1.00	0.229 1.05	94.4	6.99	2.97	3.35	81.32	0.	0.	94.63	1.072	-39.	0	67
33251 GTRW08	DISTILL	280.	0.68	0.205 1.05	80.4	5.95	2.53	2.98	55.53	22.90	0.	89.90	1.018	-17.	0	999
33251 GTRW12	DISTILL	280.	1.00	0.256 1.05	94.1	6.97	2.96	3.33	78.42	0.	0.	91.68	1.038	-29.	0	311
33251 GTRW12	DISTILL	280.	0.68	0.223 1.05	79.9	5.92	2.52	2.96	53.11	23.30	0.	87.81	0.995	-10.	6	11
33251 GTRW16	DISTILL	280.	1.00	0.242 1.05	96.8	7.17	3.05	3.36	79.96	0.	0.	93.54	1.059	-36.	0	76
33251 GTRW16	DISTILL	280.	0.61	0.208 1.05	70.9	5.25	2.23	2.72	49.05	27.91	0.	87.16	0.987	-4.	10	9
33251 GTR308	DISTILL	280.	1.00	0.127 1.05	88.9	6.58	2.80	3.04	92.08	0.	0.	104.50	1.184	-67.	0	58
33251 GTR308	DISTILL	280.	0.51	0.140 1.05	62.4	4.63	1.97	2.50	47.18	35.21	0.	91.48	1.036	-14.	0	58
33251 GTR312	DISTILL	280.	1.00	0.208 1.05	87.9	6.51	2.77	3.01	83.46	0.	0.	95.75	1.084	-39.	0	62
33251 GTR312	DISTILL	280.	0.52	0.182 1.05	62.1	4.60	1.95	2.47	43.04	34.97	0.	87.04	0.986	0.	15	6
33251 GTR316	DISTILL	280.	1.00	0.201 1.05	90.4	6.70	2.85	2.99	84.20	0.	0.	96.74	1.096	-43.	0	61

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	RCI %	GROSS PAY BACK
33251	GTR316	DISTILL	280.	0.51	0.178	1.05	63.3	4.69	1.99	2.50	42.68	35.61	0.	87.47	0.991	-2.	11	8
33251	FCPADS	DISTILL	280.	1.00	0.276	1.05	177.7	13.16	5.59	25.99	76.33	0.	0.	121.08	1.371	-163.	0	65
33251	FCPADS	DISTILL	280.	1.08	0.279	1.05	189.7	14.05	5.97	27.97	81.20	0.	-3.51	125.69	1.424	-184.	0	64
33251	FCMCDS	DISTILL	280.	1.00	0.343	1.05	188.0	13.92	5.92	24.59	69.28	0.	0.	113.71	1.288	-145.	0	72
33251	FCMCDS	DISTILL	280.	0.86	0.316	1.05	165.5	12.26	5.21	21.25	59.24	10.46	0.	108.42	1.228	-117.	0	74
33254	ONOCGN	COAL-AF	40.	0.	0.	1.50	7.3	0.55	0.24	0.64	1.52	10.32	0.	13.26	1.000	0.	0	0
33254	STM141	RESIDUA	40.	0.07	0.037	1.50	5.3	0.41	0.17	0.44	2.90	9.56	0.	13.48	1.016	0.	-12	0
33254	STM141	COAL-FG	40.	0.07	0.037	1.50	10.6	0.81	0.34	0.79	1.68	9.56	0.	13.18	0.994	-1.	7	11
33254	STM141	COAL-AF	40.	0.07	0.037	1.50	8.4	0.64	0.27	0.69	1.68	9.56	0.	12.84	0.968	1.	27	4
33254	STM088	RESIDUA	40.	0.04	0.020	1.50	4.6	0.35	0.15	0.42	2.77	9.90	0.	13.59	1.024	0.	-12	0
33254	STM088	COAL-FG	40.	0.04	0.020	1.50	9.7	0.73	0.31	0.76	1.61	9.90	0.	13.31	1.004	-1.	3	17
33254	STM088	COAL-AF	40.	0.04	0.020	1.50	7.8	0.59	0.25	0.67	1.61	9.90	0.	13.02	0.982	1.	30	4
33254	PFBSTM	COAL-PF	40.	0.15	0.074	1.50	13.6	1.03	0.44	0.99	1.89	8.72	0.	13.07	0.985	-2.	7	11
33254	TISTMT	RESIDUA	40.	0.22	0.108	1.50	29.8	2.26	0.96	1.08	3.50	8.04	0.	15.85	1.195	-19.	0	85
33254	TISTMT	COAL	40.	0.22	0.108	1.50	38.1	2.89	1.23	1.51	2.03	8.04	0.	15.71	1.184	-22.	0	999
33254	TIHRSG	RESIDUA	40.	0.15	0.045	1.50	29.3	2.17	0.92	0.97	3.61	8.74	0.	16.41	1.237	-20.	0	69
33254	TIHRSG	COAL	40.	0.15	0.045	1.50	37.7	2.86	1.22	1.41	2.09	8.74	0.	16.32	1.230	-24.	0	115
33254	STIRL	DISTILL	40.	0.31	0.105	1.50	10.3	0.76	0.32	0.56	5.46	7.13	0.	14.23	1.073	-4.	0	58
33254	STIRL	RESIDUA	40.	0.31	0.105	1.50	10.3	0.76	0.32	0.56	4.45	7.13	0.	13.23	0.997	-1.	6	12
33254	STIRL	COAL	40.	0.31	0.105	1.50	17.6	1.31	0.56	0.99	2.59	7.13	0.	12.57	0.947	-3.	10	9
33254	HEGT60	COAL-AF	40.	0.85	0.040	1.50	60.4	4.59	1.95	2.25	6.37	1.50	0.	16.66	1.256	-36.	0	999
33254	HEGT00	COAL-AF	40.	0.25	0.038	1.50	26.3	1.99	0.85	1.09	2.74	7.74	0.	14.42	1.087	-13.	0	999
33254	FCMCCL	COAL	40.	0.43	0.183	1.50	30.2	2.35	1.00	1.48	2.73	5.88	0.	13.44	1.014	-12.	4	14
33254	FCSTCL	COAL	40.	0.55	0.240	1.50	33.8	2.62	1.12	1.72	3.01	4.67	0.	13.14	0.991	-13.	5	13
33254	IGGTST	COAL	40.	0.36	0.120	1.50	27.7	2.15	0.91	1.23	2.80	6.57	0.	13.67	1.031	-11.	3	17
33254	GTSOAR	RESIDUA	40.	0.49	0.160	1.50	11.2	0.83	0.35	0.56	5.58	5.30	0.	12.61	0.951	0.	16	6
33254	GTAC08	RESIDUA	40.	0.35	0.149	1.50	8.2	0.61	0.26	0.46	4.30	6.72	0.	12.34	0.930	3.	69	2
33254	GTAC12	RESIDUA	40.	0.44	0.183	1.50	9.5	0.70	0.30	0.50	4.79	5.78	0.	12.08	0.910	3.	37	3
33254	GTAC16	RESIDUA	40.	0.51	0.204	1.50	10.9	0.81	0.34	0.54	5.23	5.08	0.	12.00	0.905	2.	26	4
33254	GTWC16	RESIDUA	40.	0.52	0.194	1.50	11.1	0.82	0.35	0.55	5.47	4.97	0.	12.17	0.917	2.	23	5
33254	CC1626	RESIDUA	40.	0.70	0.252	1.50	13.5	1.02	0.44	0.74	6.61	3.09	0.	11.91	0.898	1.	18	6
33254	CC1622	RESIDUA	40.	0.63	0.237	1.50	12.6	0.96	0.41	0.70	6.04	3.85	0.	11.96	0.902	2.	19	5
33254	CC1222	RESIDUA	40.	0.62	0.237	1.50	12.0	0.91	0.39	0.69	5.98	3.91	0.	11.88	0.895	2.	22	5
33254	CC0822	RESIDUA	40.	0.48	0.198	1.50	10.3	0.78	0.33	0.63	5.05	5.33	0.	12.13	0.915	2.	26	4
33254	DEADV3	RESIDUA	40.	1.00	0.248	1.50	29.2	2.16	0.92	1.28	9.78	0.	0.	14.14	1.066	-13.	1	25
33254	DEADV3	RESIDUA	40.	1.45	0.265	1.50	39.3	2.91	1.24	1.43	13.02	0.	-2.80	15.80	1.191	-23.	0	999
33254	DEHTPM	RESIDUA	40.	0.45	0.166	1.50	16.6	1.23	0.52	0.79	5.17	5.63	0.	13.35	1.007	-5.	4	15
33254	DESOA3	DISTILL	40.	1.00	0.204	1.50	35.9	2.66	1.13	1.47	12.68	0.	0.	17.95	1.353	-28.	0	67
33254	DESOA3	DISTILL	40.	1.77	0.224	1.50	58.6	4.34	1.84	1.95	19.95	0.	-4.74	23.34	1.760	-55.	0	63
33254	DESOA3	RESIDUA	40.	1.00	0.204	1.50	35.9	2.66	1.13	1.47	10.35	0.	0.	15.61	1.177	-21.	0	999
33254	DESOA3	RESIDUA	40.	1.77	0.224	1.50	58.6	4.34	1.84	1.95	16.27	0.	-4.74	19.67	1.483	-44.	0	77
33254	GTSOAD	DISTILL	40.	0.43	0.166	1.50	8.6	0.64	0.27	0.48	5.98	5.90	0.	13.27	1.000	-1.	5	13
33254	GTRA08	DISTILL	40.	0.60	0.267	1.50	15.8	1.17	0.50	0.70	9.15	2.05	0.	13.57	1.023	-5.	1	23
33254	GTRA12	DISTILL	40.	0.76	0.265	1.50	15.5	1.15	0.49	0.69	8.67	2.46	0.	13.46	1.015	-4.	2	18

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
33254	GTRA16	DISTILL	40.	0.70	0.247 1.50	15.4	1.14	0.49	0.68	8.13	3.13	0.	13.58	1.023	-5.	1	24
33254	GTR208	DISTILL	40.	0.56	0.201 1.50	11.9	0.88	0.37	0.58	7.13	4.54	0.	13.50	1.018	-3.	0	999
33254	GTR212	DISTILL	40.	0.60	0.215 1.50	12.8	0.95	0.40	0.60	7.42	4.12	0.	13.50	1.018	-3.	0	27
33254	GTR216	DISTILL	40.	0.62	0.226 1.50	13.6	1.01	0.43	0.62	7.48	3.94	0.	13.48	1.016	-3.	1	22
33254	GTRV08	DISTILL	40.	0.94	0.267 1.50	17.1	1.27	0.54	0.75	10.94	0.60	0.	14.10	1.063	-7.	0	199
33254	GTRV12	DISTILL	40.	0.93	0.291 1.50	17.0	1.26	0.53	0.75	10.46	0.68	0.	13.68	1.031	-6.	0	27
33254	GTRV16	DISTILL	40.	0.85	0.271 1.50	16.6	1.23	0.52	0.73	9.66	1.59	0.	13.73	1.035	-6.	0	999
33254	GTR308	DISTILL	40.	0.71	0.182 1.50	13.6	1.01	0.43	0.65	9.29	3.03	0.	14.41	1.086	-6.	0	63
33254	GTR312	DISTILL	40.	0.71	0.237 1.50	13.6	1.01	0.43	0.64	8.48	2.98	0.	13.54	1.021	-4.	0	28
33254	GTR316	DISTILL	40.	0.70	0.232 1.50	14.1	1.05	0.44	0.65	8.41	3.11	0.	13.65	1.029	-4.	0	999
33254	FCPADS	DISTILL	40.	1.00	0.261 1.50	26.2	1.94	0.83	3.96	11.78	0.	0.	18.51	1.395	-26.	0	64
33254	FCPADS	DISTILL	40.	1.49	0.279 1.50	35.8	2.65	1.13	5.52	15.99	0.	-3.04	22.26	1.678	-42.	0	62
33254	FCMCDS	DISTILL	40.	1.00	0.349 1.50	27.4	2.03	0.86	3.71	10.38	0.	0.	16.99	1.281	-21.	0	71
33254	FCMCDS	DISTILL	40.	1.18	0.360 1.50	30.8	2.28	0.97	4.17	11.67	0.	-1.11	17.99	1.356	-26.	0	69
33314	ONOCGN	COAL-AF	10.	0.	0. 0.86	4.6	0.35	0.15	0.45	0.76	2.96	0.	4.66	1.000	0.	0	0
33314	STM141	RESIDUA	10.	0.21	0.092 0.86	3.6	0.27	0.12	0.34	1.54	2.33	0.	4.60	0.987	1.	999	0
33314	STM141	COAL-FG	10.	0.21	0.092 0.86	6.6	0.50	0.21	0.57	0.90	2.33	0.	4.51	0.967	-0.	10	9
33314	STM141	COAL-AF	10.	0.21	0.092 0.86	5.6	0.42	0.18	0.50	0.90	2.33	0.	4.33	0.929	1.	23	5
33314	STM088	RESIDUA	10.	0.15	0.065 0.86	3.1	0.23	0.10	0.32	1.47	2.52	0.	4.65	0.997	1.	-4	0
33314	STM088	COAL-FG	10.	0.15	0.065 0.86	6.0	0.45	0.19	0.54	0.85	2.52	0.	4.57	0.980	-0.	9	9
33314	STM068	COAL-AF	10.	0.15	0.065 0.86	5.2	0.40	0.17	0.48	0.85	2.52	0.	4.43	0.949	0.	24	4
33314	PFBSTM	COAL-PF	10.	0.36	0.153 0.86	8.6	0.65	0.28	0.66	1.00	1.89	0.	4.49	0.964	-1.	8	10
33314	TISTMT	RESIDUA	10.	0.49	0.208 0.86	17.3	1.32	0.56	0.70	1.87	1.52	0.	5.96	1.278	-10.	0	107
33314	TISTMT	COAL	10.	0.49	0.208 0.86	22.1	1.68	0.71	0.98	1.08	1.52	0.	5.98	1.282	-13.	0	999
33314	TIHRSG	RESIDUA	10.	0.25	0.080 0.86	15.4	1.14	0.49	0.56	1.72	2.21	0.	6.11	1.311	-10.	0	71
33314	TIHRSG	COAL	10.	0.25	0.080 0.86	19.9	1.51	0.64	0.82	1.00	2.21	0.	6.18	1.325	-12.	0	121
33314	STIRL	DISTILL	10.	0.61	0.190 0.86	5.0	0.37	0.16	0.35	2.85	1.14	0.	4.87	1.045	-1.	0	55
33314	STIRL	RESIDUA	10.	0.61	0.190 0.86	5.0	0.37	0.16	0.35	2.33	1.14	0.	4.35	0.932	1.	61	2
33314	STIRL	COAL	10.	0.61	0.190 0.86	8.4	0.62	0.26	0.61	1.35	1.14	0.	3.99	0.855	0.	16	6
33314	HEGT85	COAL-AF	10.	1.00	0.101 0.86	29.6	2.24	0.95	1.34	2.24	0.	0.	6.77	1.452	-19.	0	999
33314	HEGT85	COAL-AF	10.	3.07	0.127 0.86	56.8	4.31	1.83	2.06	5.31	0.	-3.68	9.83	2.108	-41.	0	129
33314	HEGT60	COAL-AF	10.	1.00	0.132 0.86	26.1	1.98	0.84	1.11	2.16	0.	0.	6.10	1.308	-15.	0	999
33314	HEGT60	COAL-AF	10.	1.03	0.133 0.86	26.1	1.98	0.84	1.03	2.20	0.	-0.05	6.00	1.288	-15.	0	999
33314	HEGT00	COAL-AF	10.	0.42	0.066 0.86	14.3	1.09	0.46	0.64	1.32	1.72	0.	5.23	1.122	-6.	0	999
33314	FCHCCL	COAL	10.	0.75	0.277 0.86	16.9	1.31	0.56	0.87	1.36	0.75	0.	4.85	1.040	-7.	3	16
33314	FCSTCL	COAL	10.	1.00	0.365 0.86	19.9	1.55	0.66	1.18	1.53	0.	0.	4.92	1.055	-8.	4	16
33314	FCSTCL	COAL	10.	1.09	0.394 0.86	20.0	1.55	0.66	1.08	1.60	0.	-0.16	4.74	1.017	-8.	4	14
33314	IGGTST	COAL	10.	0.75	0.227 0.86	17.0	1.33	0.56	0.86	1.49	0.74	0.	4.98	1.068	-7.	3	18
33314	GTSOAR	RESIDUA	10.	0.79	0.247 0.86	6.0	0.45	0.19	0.35	2.61	0.61	0.	4.21	0.904	1.	24	4
33314	GTAC08	RESIDUA	10.	0.61	0.226 0.86	4.6	0.34	0.14	0.30	2.16	1.16	0.	4.10	0.879	2.	999	0
33314	GTAC12	RESIDUA	10.	0.76	0.278 0.86	5.2	0.38	0.16	0.32	2.39	0.70	0.	3.96	0.850	2.	72	2
33314	GTAC16	RESIDUA	10.	0.87	0.310 0.86	5.8	0.43	0.18	0.34	2.56	0.40	0.	3.92	0.841	2.	39	3
33314	GTWC16	RESIDUA	10.	0.90	0.294 0.86	6.3	0.46	0.20	0.36	2.74	0.29	0.	4.05	0.868	1.	27	4
33314	CC1G26	RESIDUA	10.	1.00	0.320 0.86	7.4	0.56	0.24	0.59	2.92	0.	0.	4.31	0.925	-0.	13	7

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST x10**6	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
					********** LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS) **********											
33314 CC1626	RESIDUA	10.	1.38	0.349 0.86	8.1	0.62	0.26	0.52	3.52	0.	-0.67	4.26	0.914	-0.	12	7
33314 CC1622	RESIDUA	10.	1.00	0.336 0.86	7.0	0.53	0.23	0.57	2.85	0.	0.	4.18	0.896	0.	17	6
33314 CC1622	RESIDUA	10.	1.24	0.356 0.86	7.4	0.56	0.24	0.49	3.22	0.	-0.42	4.09	0.877	0.	17	6
33314 CC1222	RESIDUA	10.	1.00	0.339 0.86	6.7	0.51	0.22	0.56	2.84	0.	0.	4.13	0.885	1.	19	5
33314 CC1222	RESIDUA	10.	1.23	0.359 0.86	7.0	0.53	0.23	0.49	3.19	0.	-0.41	4.03	0.864	1.	20	5
33314 CC0822	RESIDUA	10.	0.97	0.354 0.86	6.3	0.48	0.20	0.45	2.69	0.08	0.	3.90	0.837	2.	29	4
33314 STIG15	RESIDUA	10.	1.00	0.120 0.86	7.9	0.59	0.25	0.65	3.77	0.	0.	5.26	1.128	-3.	0	66
33314 STIG15	RESIDUA	10.	34.02	0.171 0.86	99.7	7.39	3.14	5.82	85.30	0.	-58.69	42.96	9.213	-165.	0	59
33314 STIG10	RESIDUA	10.	1.00	0.172 0.86	7.3	0.54	0.23	0.59	3.55	0.	0.	4.92	1.055	-2.	0	181
33314 STIG10	RESIDUA	10.	3.15	0.218 0.86	12.9	0.96	0.41	0.79	8.37	0.	-3.81	6.71	1.439	-10.	0	61
33314 STIG1S	RESIDUA	10.	1.00	0.196 0.86	7.0	0.52	0.22	0.58	3.45	0.	0.	4.76	1.021	-1.	1	26
33314 STIG1S	RESIDUA	10.	1.85	0.228 0.86	8.8	0.66	0.28	0.58	5.26	0.	-1.50	5.27	1.131	-4.	0	70
33314 DEADV3	RESIDUA	10.	1.00	0.241 0.86	9.8	0.73	0.31	0.63	3.26	0.	0.	4.92	1.055	-3.	0	999
33314 DEADV3	RESIDUA	10.	2.09	0.286 0.86	14.8	1.10	0.47	0.68	5.39	0.	-1.94	5.69	1.221	-8.	0	103
33314 DEHTPM	RESIDUA	10.	0.89	0.319 0.86	8.5	0.63	0.27	0.49	2.59	0.33	0.	4.31	0.925	-1.	11	8
33314 DESOA3	DISTILL	10.	1.00	0.204 0.86	10.6	0.78	0.33	0.66	4.19	0.	0.	5.96	1.278	-7.	0	62
33314 DFSOA3	DISTILL	10.	2.44	0.248 0.86	21.1	1.56	0.66	0.86	7.91	0.	-2.56	8.44	1.809	-19.	0	62
33314 DESOA3	RESIDUA	10.	1.00	0.204 0.86	10.6	0.78	0.33	0.66	3.42	0.	0.	5.19	1.112	-4.	0	290
33314 DESOA3	RESIDUA	10.	2.44	0.248 0.86	21.1	1.56	0.66	0.86	6.45	0.	-2.56	6.98	1.497	-15.	0	71
33314 GTSOAD	DISTILL	10.	0.74	0.255 0.86	4.8	0.35	0.15	0.31	2.95	0.78	0.	4.55	0.976	0.	69	2
33314 GTRA08	DISTILL	10.	1.00	0.320 0.86	7.7	0.57	0.24	0.50	3.58	0.	0.	4.89	1.048	-2.	0	999
33314 GTRA08	DISTILL	10.	1.23	0.339 0.86	8.1	0.60	0.25	0.42	4.03	0.	-0.41	4.89	1.050	-2.	0	999
33314 GTRA12	DISTILL	10.	1.00	0.328 0.86	7.6	0.57	0.24	0.49	3.54	0.	0.	4.83	1.037	-2.	0	999
33314 GTRA12	DISTILL	10.	1.20	0.345 0.86	8.0	0.59	0.25	0.41	3.92	0.	-0.35	4.82	1.034	-2.	0	999
33314 GTRA16	DISTILL	10.	1.00	0.330 0.86	7.9	0.59	0.25	0.49	3.52	0.	0.	4.84	1.039	-2.	0	999
33314 GTRA16	DISTILL	10.	1.12	0.341 0.86	8.0	0.59	0.25	0.41	3.74	0.	-0.21	4.80	1.029	-2.	1	25
33314 GTR208	DISTILL	10.	0.92	0.304 0.86	6.4	0.47	0.20	0.36	3.38	0.23	0.	4.64	0.995	-1.	6	12
33314 GTR212	DISTILL	10.	0.99	0.325 0.86	6.9	0.51	0.22	0.38	3.51	0.03	0.	4.64	0.996	-1.	6	12
33314 GTR216	DISTILL	10.	1.00	0.335 0.86	7.2	0.54	0.23	0.43	3.50	0.	0.	4.69	1.007	-1.	4	15
33314 GTR216	DISTILL	10.	1.01	0.336 0.86	7.2	0.53	0.23	0.39	3.53	0.	-0.03	4.64	0.996	-1.	5	12
33314 GTRW08	DISTILL	10.	1.00	0.269 0.86	7.9	0.59	0.25	0.53	3.84	0.	0.	5.21	1.117	-3.	0	66
33314 GTRW08	DISTILL	10.	1.47	0.298 0.86	9.0	0.67	0.28	0.46	4.89	0.	-0.83	5.47	1.174	-5.	0	63
33314 GTRW12	DISTILL	10.	1.00	0.289 0.86	7.9	0.59	0.25	0.52	3.74	0.	0.	5.10	1.095	-3.	0	73
33314 GTRW12	DISTILL	10.	1.49	0.320 0.86	9.1	0.67	0.29	0.46	4.79	0.	-0.87	5.34	1.144	-4.	0	67
33314 GTRW16	DISTILL	10.	1.00	0.293 0.86	8.2	0.60	0.26	0.52	3.72	0.	0.	5.10	1.094	-3.	0	76
33314 GTRW16	DISTILL	10.	1.38	0.320 0.86	9.0	0.67	0.28	0.45	4.52	0.	-0.67	5.25	1.126	-4.	0	70
33314 GTR308	DISTILL	10.	1.00	0.249 0.86	7.2	0.53	0.23	0.48	3.95	0.	0.	5.18	1.111	-3.	0	62
33314 GTR308	DISTILL	10.	1.12	0.258 0.86	7.2	0.53	0.23	0.40	4.23	0.	-0.21	5.18	1.111	-3.	0	61
33314 GTR312	DISTILL	10.	1.00	0.299 0.86	7.3	0.54	0.23	0.49	3.69	0.	0.	4.95	1.061	-2.	0	88
33314 GTR312	DISTILL	10.	1.20	0.315 0.86	7.5	0.56	0.24	0.41	4.10	0.	-0.35	4.95	1.062	-2.	0	87
33314 GTR316	DISTILL	10.	1.00	0.297 0.86	7.6	0.56	0.24	0.49	3.70	0.	0.	4.99	1.071	-2.	0	83
33314 GTR316	DISTILL	10.	1.18	0.311 0.86	7.8	0.58	0.25	0.41	4.07	0.	-0.32	4.99	1.071	-3.	0	84
33314 FCPADS	DISTILL	10.	1.00	0.227 0.86	8.5	0.63	0.27	1.32	4.06	0.	0.	6.28	1.346	-7.	0	61
33314 FCPADS	DISTILL	10.	2.59	0.279 0.86	16.4	1.21	0.52	2.77	8.00	0.	-2.83	9.66	2.071	-21.	0	60

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
33314	FCMCDS	DISTILL	10.	1.00	0.304	0.86	8.6	0.64	0.27	1.24	3.66	0.	0.	5.81	1.247	-6.	0	64
33314	FCMCDS	DISTILL	10.	2.05	0.360	0.86	14.0	1.03	0.44	2.09	5.83	0.	-1.87	7.53	1.615	-14.	0	62
33315	ONOCGN	COAL-AF	19.	0.	0.	1.05	5.7	0.44	0.19	0.54	1.14	5.43	0.	7.72	1.000	0.	0	0
33315	STM141	RESIDUA	19.	0.17	0.079	1.05	4.6	0.35	0.15	0.39	2.31	4.49	0.	7.70	0.997	1.	-3	0
33315	STM141	COAL-FG	19.	0.17	0.079	1.05	8.6	0.66	0.28	0.68	1.34	4.49	0.	7.45	0.965	-1.	11	8
33315	STM141	COAL-AF	19.	0.17	0.079	1.05	7.1	0.54	0.23	0.60	1.34	4.49	0.	7.20	0.933	1.	26	4
33315	STM088	RESIDUA	19.	0.12	0.055	1.05	4.0	0.30	0.13	0.38	2.20	4.77	0.	7.78	1.008	1.	-7	0
33315	STM088	COAL-FG	19.	0.12	0.055	1.05	7.9	0.60	0.26	0.65	1.28	4.77	0.	7.56	0.979	-1.	10	9
33315	STM088	COAL-AF	19.	0.12	0.055	1.05	6.7	0.51	0.21	0.58	1.28	4.77	0.	7.36	0.952	1.	27	4
33315	PFBSTM	COAL-PF	19.	0.29	0.131	1.05	11.1	0.84	0.36	0.83	1.50	3.84	0.	7.37	0.954	-1.	9	9
33315	TISTMT	RESIDUA	19.	0.40	0.179	1.05	23.3	1.77	0.75	0.88	2.80	3.27	0.	9.47	1.226	-14.	0	114
33315	TISTMT	COAL	19.	0.40	0.179	1.05	29.7	2.25	0.96	1.24	1.62	3.27	0.	9.35	1.211	-17.	0	999
33315	TIHRSG	RESIDUA	19.	0.21	0.069	1.05	20.8	1.54	0.65	0.72	2.58	4.30	0.	9.79	1.268	-13.	0	70
33315	TIHRSG	COAL	19.	0.21	0.069	1.05	26.8	2.03	0.86	1.05	1.50	4.30	0.	9.75	1.262	-16.	0	137
33315	STIRL	DISTILL	19.	0.50	0.164	1.05	7.2	0.54	0.23	0.45	4.27	2.70	0.	8.19	1.060	-2.	0	58
33315	STIRL	RESIDUA	19.	0.50	0.164	1.05	7.3	0.54	0.23	0.45	3.49	2.70	0.	7.40	0.959	0.	19	5
33315	STIRL	COAL	19.	0.50	0.164	1.05	13.1	0.97	0.41	0.80	2.02	2.70	0.	6.91	0.894	-1.	12	7
33315	HEGT05	COAL-AF	19.	1.00	0.104	1.05	44.1	3.35	1.42	1.87	3.86	0.	0.	10.50	1.360	-27.	0	999
33315	HEGT85	COAL-AF	19.	2.58	0.125	1.05	77.1	5.85	2.49	2.78	8.17	0.	-5.15	14.14	1.831	-54.	0	309
33315	HEGT60	COAL-AF	19.	0.85	0.117	1.05	34.9	2.65	1.13	1.35	3.32	0.83	0.	9.28	1.201	-19.	0	999
33315	HEGT00	COAL-AF	19.	0.34	0.057	1.05	19.1	1.45	0.62	0.83	1.98	3.57	0.	8.44	1.093	-9.	0	999
33315	FCMCCL	COAL	19.	0.61	0.240	1.05	22.4	1.74	0.74	1.14	2.04	2.11	0.	7.78	1.008	-8.	5	14
33315	FCSTCL	COAL	19.	0.89	0.362	1.05	26.6	2.07	0.88	1.41	2.40	0.60	0.	7.36	0.953	-9.	6	12
33315	IGGTST	COAL	19.	0.61	0.195	1.05	22.2	1.73	0.73	1.04	2.24	2.11	0.	7.85	1.016	-9.	4	14
33315	GTSCAR	RESIDUA	19.	0.65	0.214	1.05	8.0	0.59	0.25	0.43	3.92	1.90	0.	7.10	0.919	1.	22	5
33315	GTAC08	RESIDUA	19.	0.50	0.196	1.05	6.1	0.45	0.19	0.37	3.23	2.72	0.	6.97	0.902	2.	149	1
33315	GTAC12	RESIDUA	19.	0.62	0.241	1.05	7.0	0.52	0.22	0.40	3.58	2.04	0.	6.76	0.875	3.	50	2
33315	GTAC16	RESIDUA	19.	0.71	0.268	1.05	7.9	0.58	0.25	0.43	3.85	1.57	0.	6.68	0.865	2.	33	3
33315	GTWC16	RESIDUA	19.	0.74	0.255	1.05	8.3	0.62	0.26	0.44	4.11	1.41	0.	6.84	0.886	2.	26	4
33315	CC1626	RESIDUA	19.	1.00	0.338	1.05	10.6	0.81	0.34	0.71	4.91	0.	0.	6.78	0.877	1.	17	6
33315	CC1626	RESIDUA	19.	1.12	0.348	1.05	10.8	0.82	0.35	0.63	5.28	0.	-0.40	6.68	0.865	1.	17	6
33315	CC1622	RESIDUA	19.	1.00	0.355	1.05	10.1	0.76	0.32	0.64	4.79	0.	0.	6.52	0.844	2.	21	5
33315	CC1622	RESIDUA	19.	1.01	0.356	1.05	10.0	0.76	0.32	0.60	4.81	0.	-0.03	6.46	0.837	2.	22	5
33315	CC1222	RESIDUA	19.	1.00	0.359	1.05	9.6	0.72	0.31	0.62	4.76	0.	0.	6.42	0.831	2.	24	4
33315	CC1222	RESIDUA	19.	1.00	0.359	1.05	9.5	0.72	0.31	0.59	4.77	0.	-0.01	6.38	0.826	2.	25	4
33315	CC0622	RESIDUA	19.	0.79	0.305	1.05	8.3	0.63	0.27	0.54	4.03	1.12	0.	6.59	0.854	2.	29	4
33315	STIG15	RESIDUA	19.	1.00	0.127	1.05	11.6	0.86	0.37	0.88	6.48	0.	0.	8.58	1.112	-5.	0	72
33315	STIG15	RESIDUA	19.	27.86	0.171	1.05	145.9	10.81	4.60	8.40	127.94	0.	-87.44	64.31	8.327	-243.	0	59
33315	STIG10	RESIDUA	19.	1.00	0.182	1.05	10.7	0.79	0.34	0.79	6.07	0.	0.	7.99	1.034	-3.	0	999
33315	STIG10	RESIDUA	19.	2.58	0.218	1.05	17.4	1.29	0.55	1.03	12.55	0.	-5.13	10.29	1.332	-13.	0	62
33315	STIG1S	RESIDUA	19.	1.00	0.208	1.05	10.1	0.75	0.32	0.76	5.88	0.	0.	7.71	0.998	-2.	5	13
33315	STIG1S	RESIDUA	19.	1.51	0.228	1.05	11.9	0.88	0.37	0.75	7.89	0.	-1.67	8.23	1.065	-4.	0	999
33315	DEADV3	RESIDUA	19.	1.00	0.254	1.05	14.7	1.09	0.46	0.82	5.54	0.	0.	7.91	1.024	-5.	3	17
33315	DEADV3	RESIDUA	19.	1.72	0.286	1.05	22.0	1.63	0.69	0.91	8.11	0.	-2.35	9.00	1.166	-12.	0	999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	COST *10**6	CAPITAL	CAPITAL + INSNC	TAXES	O&M	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
33315 DEHTPM	RESIDUA	19.	0.73	0.275 1.05	11.1	0.82	0.35	0.60	3.88	1.49	0.		7.15	0.925	-1.	12	7
33315 DESOA3	DISTILL	19.	1.00	0.215 1.05	17.9	1.32	0.56	0.91	7.15	0.	0.		9.94	1.287	-13.	0	65
33315 DESOA3	DISTILL	19.	2.01	0.248 1.05	31.3	2.32	0.99	1.17	11.92	0.	-3.28		13.12	1.699	-29.	0	62
33315 DESOA3	RESIDUA	19.	1.00	0.215 1.05	17.9	1.32	0.56	0.91	5.83	0.	0.		8.62	1.117	-8.	0	999
33315 DESOA3	RESIDUA	19.	2.01	0.248 1.05	31.3	2.32	0.99	1.17	9.73	0.	-3.28		10.93	1.415	-22.	0	76
33315 GTSOAD	DISTILL	19.	0.60	0.221 1.05	6.4	0.47	0.20	0.38	4.43	2.16	0.		7.64	0.989	0.	17	6
33315 GTRA08	DISTILL	19.	1.00	0.337 1.05	10.8	0.80	0.34	0.57	6.03	0.	0.		7.74	1.002	-2.	5	14
33315 GTRA08	DISTILL	19.	1.01	0.338 1.05	10.8	0.80	0.34	0.52	6.06	0.	-0.03		7.69	0.996	-2.	5	12
33315 GTRA12	DISTILL	19.	0.98	0.340 1.05	10.7	0.79	0.34	0.52	5.89	0.09	0.		7.63	0.988	-2.	6	11
33315 GTRA16	DISTILL	19.	0.92	0.320 1.05	10.8	0.80	0.34	0.52	5.63	0.46	0.		7.74	1.002	-2.	5	14
33315 GTR208	DISTILL	19.	0.76	0.264 1.05	8.5	0.63	0.27	0.45	5.07	1.32	0.		7.74	1.002	-1.	4	14
33315 GTR212	DISTILL	19.	0.81	0.282 1.05	9.2	0.68	0.29	0.47	5.27	1.02	0.		7.73	1.001	-2.	5	13
33315 GTR216	DISTILL	19.	0.83	0.294 1.05	9.6	0.71	0.30	0.48	5.29	0.91	0.		7.71	0.998	-2.	5	13
33315 GTRW08	DISTILL	19.	1.00	0.284 1.05	11.4	0.84	0.36	0.65	6.52	0.	0.		8.37	1.083	-5.	0	81
33315 GTRW08	DISTILL	19.	1.20	0.297 1.05	12.0	0.89	0.38	0.57	7.35	0.	-0.66		8.52	1.103	-5.	0	71
33315 GTRW12	DISTILL	19.	1.00	0.305 1.05	11.4	0.84	0.36	0.65	6.33	0.	0.		8.18	1.059	-4.	0	***
33315 GTRW12	DISTILL	19.	1.22	0.320 1.05	12.0	0.89	0.38	0.57	7.19	0.	-0.72		8.31	1.076	-5.	0	107
33315 GTRW16	DISTILL	19.	1.00	0.310 1.05	11.6	0.86	0.37	0.64	6.28	0.	0.		8.15	1.056	-4.	0	999
33315 GTRW16	DISTILL	19.	1.13	0.319 1.05	11.9	0.88	0.38	0.56	6.78	0.	-0.42		8.18	1.060	-4.	0	999
33315 GTR308	DISTILL	19.	0.92	0.242 1.05	9.6	0.71	0.30	0.50	6.36	0.44	0.		8.31	1.076	-4.	0	65
33315 GTR312	DISTILL	19.	0.98	0.310 1.05	10.0	0.74	0.31	0.50	6.15	0.10	0.		7.82	1.012	-2.	3	17
33315 GTR316	DISTILL	19.	0.97	0.303 1.05	10.4	0.77	0.33	0.51	6.11	0.19	0.		7.90	1.023	-3.	1	25
33315 FCPADS	DISTILL	19.	1.00	0.240 1.05	13.7	1.01	0.43	2.20	6.91	0.	0.		10.55	1.367	-13.	0	62
33315 FCPADS	DISTILL	19.	2.12	0.279 1.05	24.0	1.78	0.76	4.09	11.99	0.	-3.66		14.95	1.936	-32.	0	61
33315 FCMCDS	DISTILL	19.	1.00	0.321 1.05	14.2	1.05	0.45	2.07	6.18	0.	0.		9.75	1.262	-10.	0	66
33315 FCMCDS	DISTILL	19.	1.68	0.360 1.05	20.7	1.53	0.65	3.09	8.75	0.	-2.22		11.81	1.529	-20.	0	64
33316 ONOCON	COAL-AF	16.	0.	0. 0.91	5.7	0.44	0.19	0.54	1.14	4.69	0.		6.99	1.000	0.	0	0
33316 STM141	RESIDUA	16.	0.20	0.088 0.91	4.6	0.35	0.15	0.39	2.31	3.76	0.		6.96	0.996	1.	-3	0
33316 STM141	COAL-FG	16.	0.20	0.088 0.91	8.6	0.66	0.28	0.68	1.34	3.76	0.		6.72	0.961	-1.	11	8
33316 STM141	COAL-AF	16.	0.20	0.088 0.91	7.1	0.54	0.23	0.60	1.34	3.76	0.		6.47	0.926	1.	26	4
33316 STM088	RESIDUA	16.	0.14	0.061 0.91	4.0	0.30	0.13	0.38	2.20	4.04	0.		7.05	1.009	1.	-7	0
33316 STM088	COAL-FG	16.	0.14	0.061 0.91	7.9	0.60	0.26	0.65	1.28	4.04	0.		6.83	0.977	-1.	10	9
33316 STM088	COAL-AF	16.	0.14	0.061 0.91	6.7	0.51	0.21	0.58	1.28	4.04	0.		6.62	0.947	1.	27	4
33316 PFBSTM	COAL-PF	16.	0.34	0.146 0.91	11.1	0.84	0.36	0.83	1.50	3.10	0.		6.64	0.950	-1.	9	9
33316 TISTMT	RESIDUA	16.	0.46	0.199 0.91	23.3	1.77	0.75	0.88	2.80	2.54	0.		8.74	1.250	-14.	0	114
33316 TISTMT	COAL	16.	0.46	0.199 0.91	29.7	2.25	0.96	1.24	1.62	2.54	0.		8.62	1.233	-17.	0	999
33316 TIHRSG	RESIDUA	16.	0.24	0.077 0.91	20.8	1.54	0.65	0.72	2.58	3.57	0.		9.06	1.296	-13.	0	70
33316 TIHRSG	COAL	16.	0.24	0.077 0.91	26.8	2.03	0.86	1.05	1.50	3.57	0.		9.02	1.290	-16.	0	137
33316 STIRL	DISTILL	16.	0.56	0.182 0.91	7.2	0.54	0.23	0.45	4.27	1.97	0.		7.46	1.067	-2.	0	58
33316 STIRL	RESIDUA	16.	0.58	0.182 0.91	7.3	0.54	0.23	0.45	3.49	1.97	0.		6.67	0.954	0.	19	5
33316 STIRL	COAL	16.	0.58	0.182 0.91	13.1	0.97	0.41	0.80	2.02	1.97	0.		6.17	0.883	-1.	12	7
33316 HEGT85	COAL-AF	16.	1.00	0.100 0.91	40.5	3.08	1.31	1.75	3.49	0.	0.		9.63	1.377	-25.	0	999
33316 HEGT85	COAL-AF	16.	2.98	0.125 0.91	77.1	5.85	2.49	2.78	8.17	0.	-5.59		13.70	1.960	-55.	0	175
33316 HEGT60	COAL-AF	16.	0.98	0.130 0.91	34.9	2.65	1.13	1.35	3.32	0.10	0.		8.54	1.222	-19.	0	999

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST — PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY SYSTEM	CONV	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO	CAPITAL COST *10**6	CAPITAL + INSNC	TAXES	OAHDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
33316	HEGT00	COAL-AF	16.	0.40	0.063 0.91	19.1	1.45	0.62	0.83	1.98	2.83	0.	7.70	1.102	-9.	0	999
33316	FCMCCL	COAL	16.	0.71	0.266 0.91	22.4	1.74	0.74	1.14	2.04	1.38	0.	7.05	1.009	-8.	5	14
33316	FCSTCL	COAL	16.	1.00	0.391 0.91	26.7	2.08	0.88	1.50	2.36	0.	0.	6.83	0.977	-10.	5	13
33316	FCSTCL	COAL	16.	1.03	0.394 0.91	26.6	2.07	0.88	1.41	2.40	0.	-0.06	6.68	0.955	-9.	6	12
33316	IGGTST	COAL	16.	0.71	0.217 0.91	22.2	1.73	0.73	1.04	2.24	1.37	0.	7.12	1.018	-9.	4	14
33316	GTS0AR	RESIDUA	16.	0.75	0.238 0.91	8.0	0.59	0.25	0.43	3.92	1.17	0.	6.37	0.911	1.	22	5
33316	GTAC08	RESIDUA	16.	0.58	0.217 0.91	6.1	0.45	0.19	0.37	3.23	1.99	0.	6.24	0.892	2.	149	1
33316	GTAC12	RESIDUA	16.	0.72	0.268 0.91	7.0	0.52	0.22	0.40	3.58	1.30	0.	6.02	0.862	3.	50	2
33316	GTAC16	RESIDUA	16.	0.82	0.298 0.91	7.9	0.58	0.25	0.43	3.85	0.84	0.	5.95	0.851	2.	33	3
33316	GTWC16	RESIDUA	16.	0.85	0.283 0.91	8.3	0.62	0.26	0.44	4.11	0.68	0.	6.11	0.874	2.	26	4
33316	CC1626	RESIDUA	16.	1.00	0.325 0.91	10.0	0.76	0.32	0.71	4.51	0.	0.	6.31	0.903	0.	15	7
33316	CC1626	RESIDUA	16.	1.30	0.348 0.91	10.8	0.82	0.35	0.63	5.28	0.	-0.84	6.24	0.893	-0.	14	7
33316	CC1622	RESIDUA	16.	1.00	0.341 0.91	9.7	0.73	0.31	0.68	4.41	0.	0.	6.13	0.877	1.	18	6
33316	CC1622	RESIDUA	16.	1.17	0.356 0.91	10.0	0.76	0.32	0.60	4.81	0.	-0.47	6.02	0.862	1.	19	5
33316	CC1222	RESIDUA	16.	1.00	0.344 0.91	9.2	0.70	0.30	0.67	4.38	0.	0.	6.06	0.867	1.	20	5
33316	CC1222	RESIDUA	16.	1.16	0.359 0.91	9.5	0.72	0.31	0.59	4.77	0.	-0.45	5.94	0.850	2.	21	5
33316	CC0822	RESIDUA	16.	0.92	0.339 0.91	8.3	0.63	0.27	0.54	4.03	0.38	0.	5.86	0.838	2.	29	4
33316	STIG15	RESIDUA	16.	1.00	0.122 0.91	10.8	0.80	0.34	0.82	5.87	0.	0.	7.83	1.120	-5.	0	68
33316	STIG15	RESIDUA	16.	32.21	0.171 0.91	145.9	10.81	4.60	8.40	127.94	0.	-87.88	63.87	9.137	-244.	0	59
33316	STIG10	RESIDUA	16.	1.00	0.175 0.91	10.0	0.74	0.31	0.75	5.51	0.	0.	7.31	1.046	-3.	0	999
33316	STIG10	RESIDUA	16.	2.93	0.218 0.91	17.4	1.29	0.55	1.03	12.55	0.	-5.57	9.85	1.409	-14.	0	61
33316	STIG1S	RESIDUA	16.	1.00	0.200 0.91	9.5	0.70	0.30	0.72	5.35	0.	0.	7.08	1.013	-2.	3	19
33316	STIG1S	RESIDUA	16.	1.75	0.223 0.91	11.9	0.88	0.37	0.75	7.89	0.	-2.11	7.79	1.114	-5.	0	75
33316	DEADV3	RESIDUA	16.	1.00	0.244 0.91	13.3	0.98	0.42	0.78	5.05	0.	0.	7.23	1.034	-4.	2	21
33316	DEADV3	RESIDUA	16.	1.99	0.206 0.91	22.0	1.63	0.69	0.91	8.11	0.	-2.79	8.56	1.225	-12.	0	116
33316	DEHTFM	RESIDUA	16.	0.84	0.305 0.91	11.1	0.82	0.35	0.60	3.88	0.76	0.	6.41	0.917	-1.	12	7
33316	DESOA3	DISTILL	16.	1.00	0.206 0.91	16.0	1.18	0.50	0.85	6.50	0.	0.	9.04	1.294	-11.	0	63
33316	DESOA3	DISTILL	16.	2.32	0.248 0.91	31.3	2.32	0.99	1.17	11.92	0.	-3.72	12.68	1.815	-30.	0	62
33316	DESOA3	RESIDUA	16.	1.00	0.206 0.91	16.0	1.18	0.50	0.65	5.31	0.	0.	7.84	1.122	-7.	0	***
33316	DESOA3	RESIDUA	16.	2.32	0.248 0.91	31.3	2.32	0.99	1.17	9.73	0.	-3.72	10.49	1.501	-23.	0	72
33316	GTSOAD	DISTILL	16.	0.70	0.245 0.91	6.4	0.47	0.20	0.38	4.43	1.42	0.	6.91	0.988	0.	17	6
33316	GTRA06	DISTILL	16.	1.00	0.324 0.91	10.4	0.77	0.33	0.61	5.54	0.	0.	7.25	1.037	-3.	0	999
33316	GTRA03	DISTILL	16.	1.17	0.338 0.91	10.8	0.80	0.34	0.52	6.06	0.	-0.47	7.25	1.038	-3.	0	999
33316	GTRA12	DISTILL	16.	1.00	0.333 0.91	10.4	0.77	0.33	0.60	5.47	0.	0.	7.17	1.026	-3.	1	25
33316	GTRA12	DISTILL	16.	1.14	0.345 0.91	10.7	0.79	0.34	0.52	5.89	0.	-0.38	7.15	1.023	-3.	1	22
33316	GTRA16	DISTILL	16.	1.00	0.335 0.91	10.8	0.80	0.34	0.59	5.45	0.	0.	7.17	1.026	-3.	1	24
33316	GTRA16	DISTILL	16.	1.06	0.341 0.91	10.8	0.80	0.34	0.52	5.63	0.	-0.16	7.12	1.018	-3.	2	19
33316	GTR208	DISTILL	16.	0.87	0.293 0.91	8.5	0.63	0.27	0.45	5.07	0.59	0.	7.00	1.002	-1.	4	14
33316	GTR212	DISTILL	16.	0.94	0.313 0.91	9.2	0.68	0.29	0.47	5.27	0.29	0.	7.00	1.002	-2.	5	13
33316	GTR216	DISTILL	16.	0.96	0.327 0.91	9.6	0.71	0.30	0.48	5.29	0.18	0.	6.97	0.998	-2.	5	13
33316	GTRW08	DISTILL	16.	1.00	0.273 0.91	10.7	0.79	0.34	0.64	5.96	0.	0.	7.73	1.106	-5.	0	68
33316	GTRW08	DISTILL	16.	1.39	0.297 0.91	12.0	0.89	0.38	0.57	7.35	0.	-1.10	8.08	1.156	-6.	0	64
33316	GTRW12	DISTILL	16.	1.00	0.293 0.91	10.7	0.79	0.34	0.64	5.80	0.	0.	7.57	1.083	-4.	0	79
33316	GTRW12	DISTILL	16.	1.41	0.320 0.91	12.0	0.89	0.38	0.57	7.19	0.	-1.16	7.87	1.126	-6.	0	68

REPORT 5.4

ECONOMIC SENSITIVITY REPORT FOR SELECTED PROCESS-ECS MATCHES

SENSITIVITY OF CAPITAL COST PERCENT OF ORIGINAL COST 100

**********LEVELIZED ANNUAL ENERGY COSTS($ MILLIONS)**********

ENERGY CONV SYSTEM	SITE-FUEL	POWER REQD MW	POWER GEN/ REQD	FESRPOWER /HEAT RATIO *10**6	CAPITAL COST	CAPITAL + INSNC	TAXES	OANDM	FUEL	PURCHD ELEC	REVNUE	TOTAL	NORML	PRESNT WORTH 15%	ROI %	GROSS PAY BACK
33316 GTRW16	DISTILL	16.	1.00	0.298 0.91	11.0	0.81	0.35	0.64	5.76	0.	0.	7.56	1.081	-4.	0	86
33316 GTRW16	DISTILL	16.	1.31	0.319 0.91	11.9	0.88	0.38	0.56	6.78	0.	-0.86	7.74	1.108	-5.	0	74
33316 GTR308	DISTILL	16.	1.00	0.253 0.91	9.7	0.71	0.30	0.57	6.12	0.	0.	7.72	1.104	-4.	0	63
33316 GTR308	DISTILL	16.	1.06	0.257 0.91	9.6	0.71	0.30	0.50	6.36	0.	-0.17	7.69	1.101	-4.	0	62
33316 GTR312	DISTILL	16.	1.00	0.304 0.91	9.8	0.73	0.31	0.59	5.71	0.	0.	7.34	1.050	-3.	0	184
33316 GTR312	DISTILL	16.	1.13	0.314 0.91	10.0	0.74	0.31	0.50	6.15	0.	-0.38	7.33	1.049	-3.	0	190
33316 GTR316	DISTILL	16.	1.00	0.302 0.91	10.2	0.76	0.32	0.60	5.72	0.	0.	7.40	1.059	-3.	0	121
33316 GTR316	DISTILL	16.	1.12	0.311 0.91	10.4	0.77	0.33	0.51	6.11	0.	-0.33	7.39	1.057	-3.	0	129
33316 FCPADS	DISTILL	16.	1.00	0.231 0.91	12.4	0.92	0.39	1.95	6.30	0.	0.	9.57	1.369	-11.	0	61
33316 FCPADS	DISTILL	16.	2.46	0.279 0.91	24.0	1.78	0.76	4.09	11.99	0.	-4.10	14.51	2.077	-33.	0	60
33316 FCMCDS	DISTILL	16.	1.00	0.309 0.91	12.9	0.95	0.41	1.85	5.67	0.	0.	8.87	1.269	-9.	0	64
33316 FCMCDS	DISTILL	16.	1.94	0.360 0.91	20.7	1.53	0.65	3.09	8.75	0.	-2.66	11.37	1.626	-21.	0	63

LAEC SENSITIVITY CURVES

GENERAL ELECTRIC COMPANY

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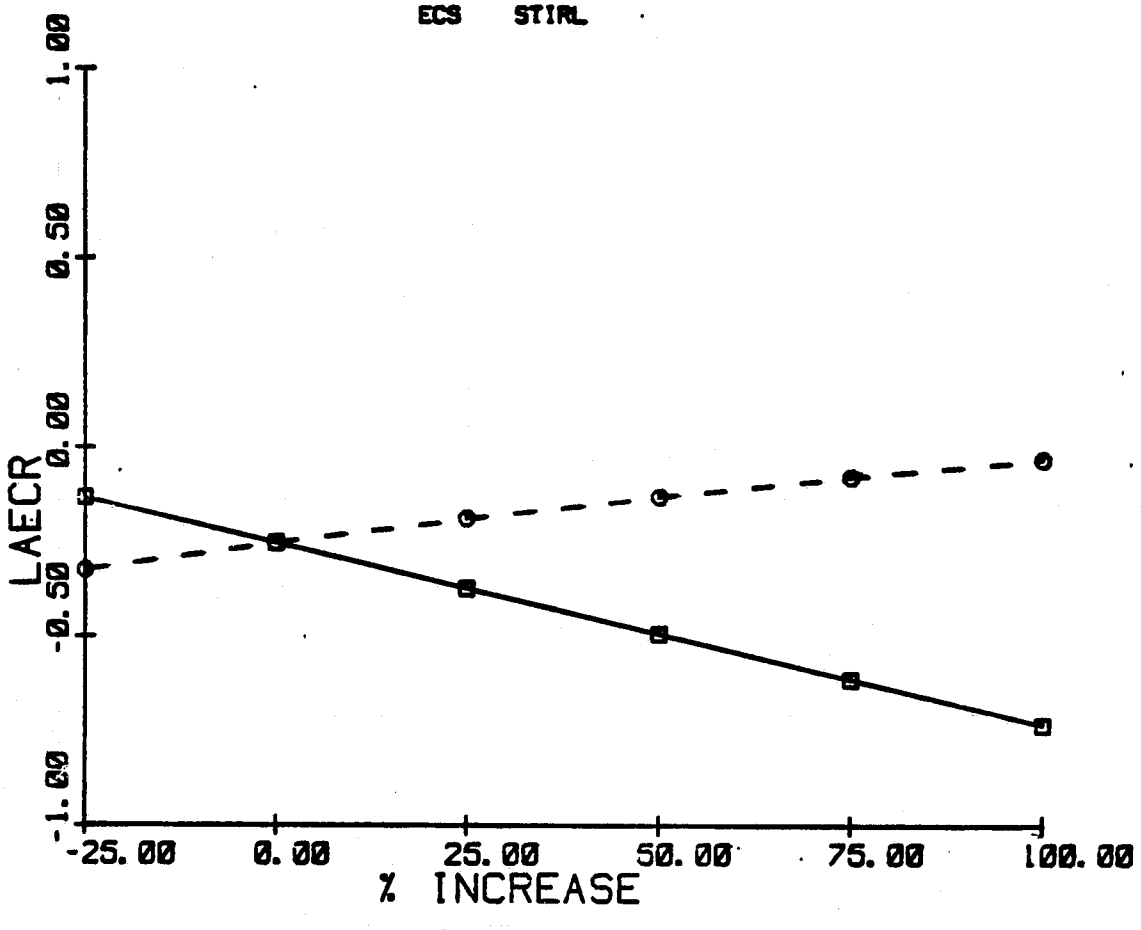
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20111

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 2		CAPITAL COST- 2.7
PROCESS HEAT- 24	CAPITAL COST- 1.6	LAEC -0.912
(BTU*10**6)	LAEC -0.720	ROI -0
WASTE FUEL- 0	FUEL -RESIDUAL	MW(GEN) -2
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.278		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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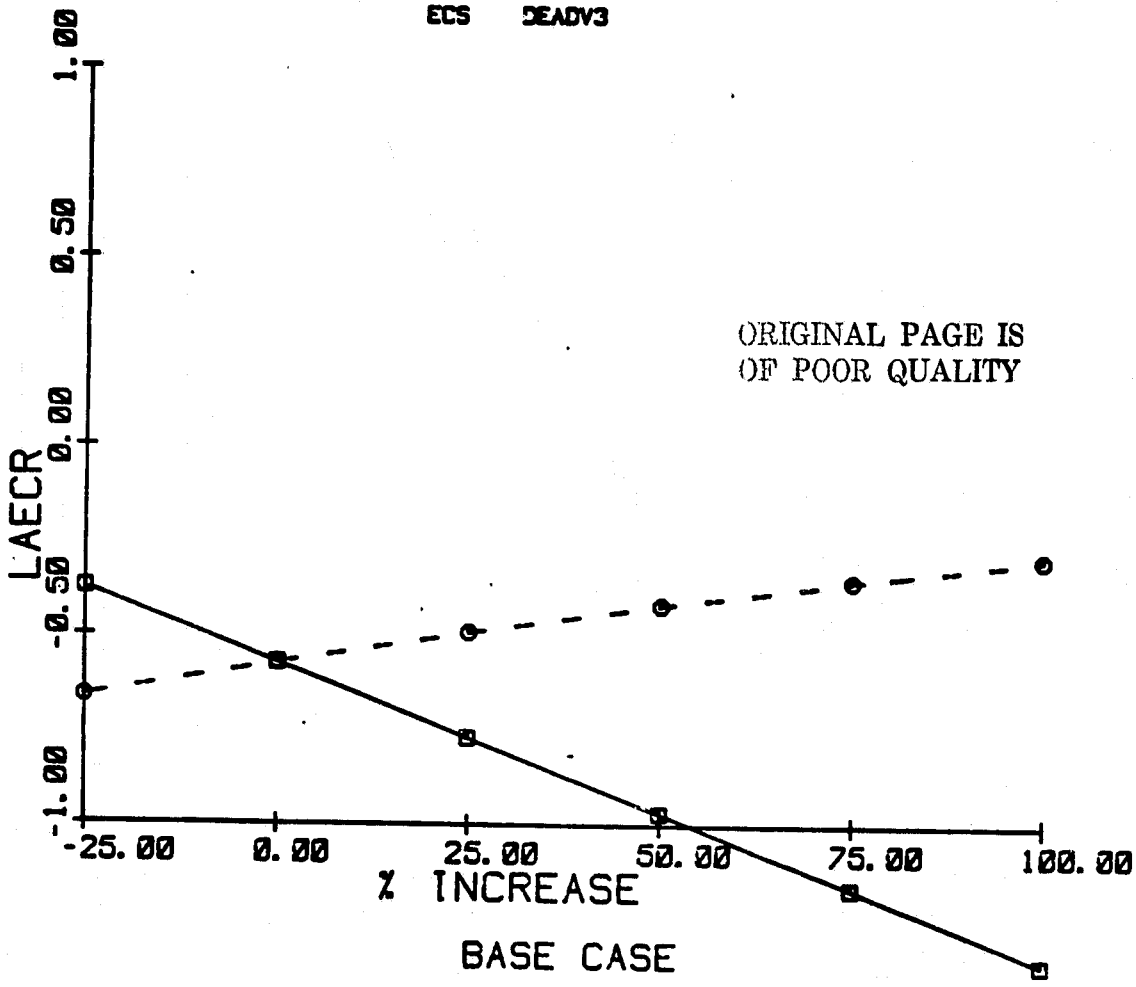
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20111

ECS DEADV3



BASE CASE

NO COGENERATION

PROCESS

MW- 2

PROCESS HEAT- 24

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.276

CAPITAL COST- 1.6

LAEC - 0.726

FUEL - RESIDUAL

COGENERATION

CAPITAL COST- 4.4

LAEC - 1.144

ROI - 0

MW(GEN) - 2

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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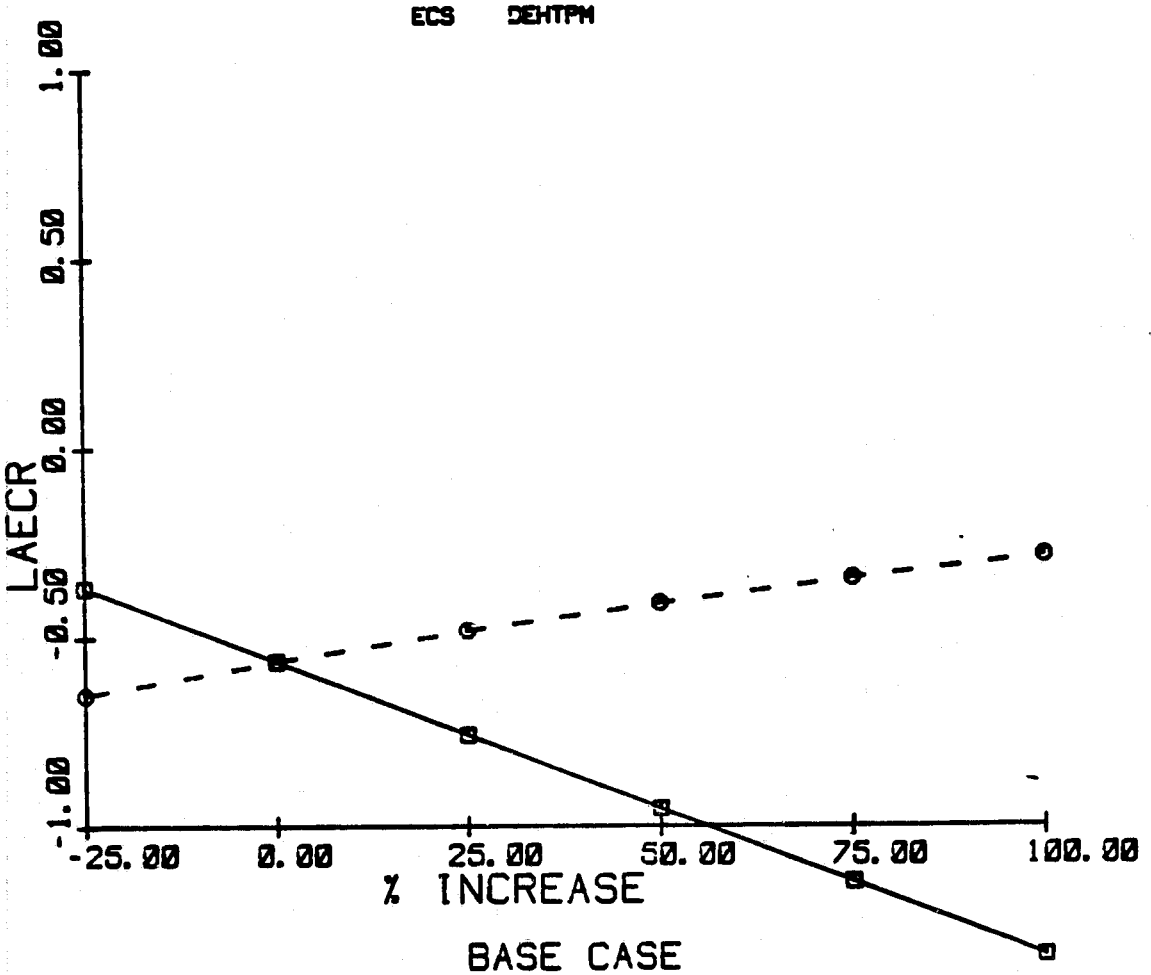
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20111

ECS DEHTPM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 2		CAPITAL COST- 4.3
PROCESS HEAT- 24	CAPITAL COST- 1.6	LAEC - 1.136
(BTU*10**6)	LAEC - 0.726	ROI - 0
WASTE FUEL- 0	FUEL - RESIDUAL	MW(GEN) - 2
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.276		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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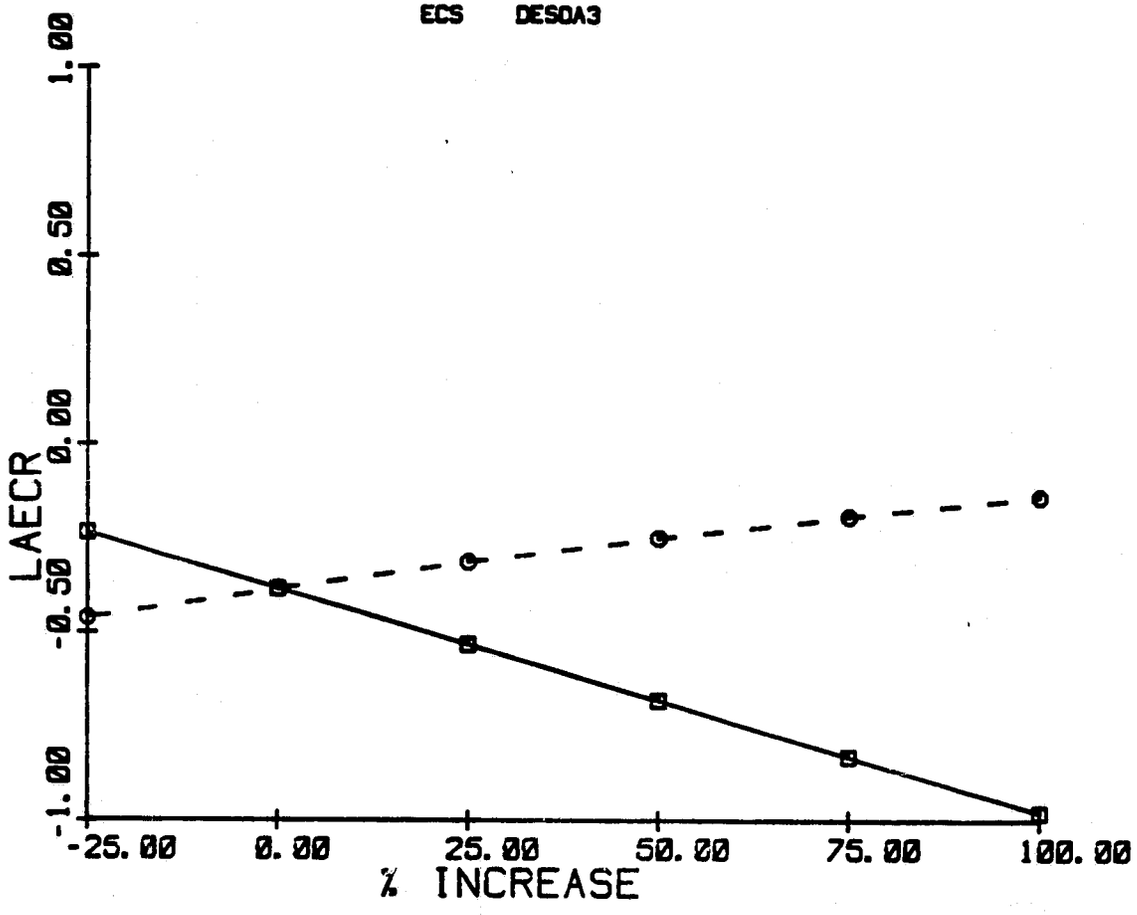
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20111

ECS DESOA3



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 2		CAPITAL COST- 3.3
PROCESS HEAT- 24	CAPITAL COST- 1.6	LAEC -1.007
(BTU*10**6)	LAEC -0.726	ROI -0
WASTE FUEL- 0	FUEL -RESIDUAL	MW(GEN) -2
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.276		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

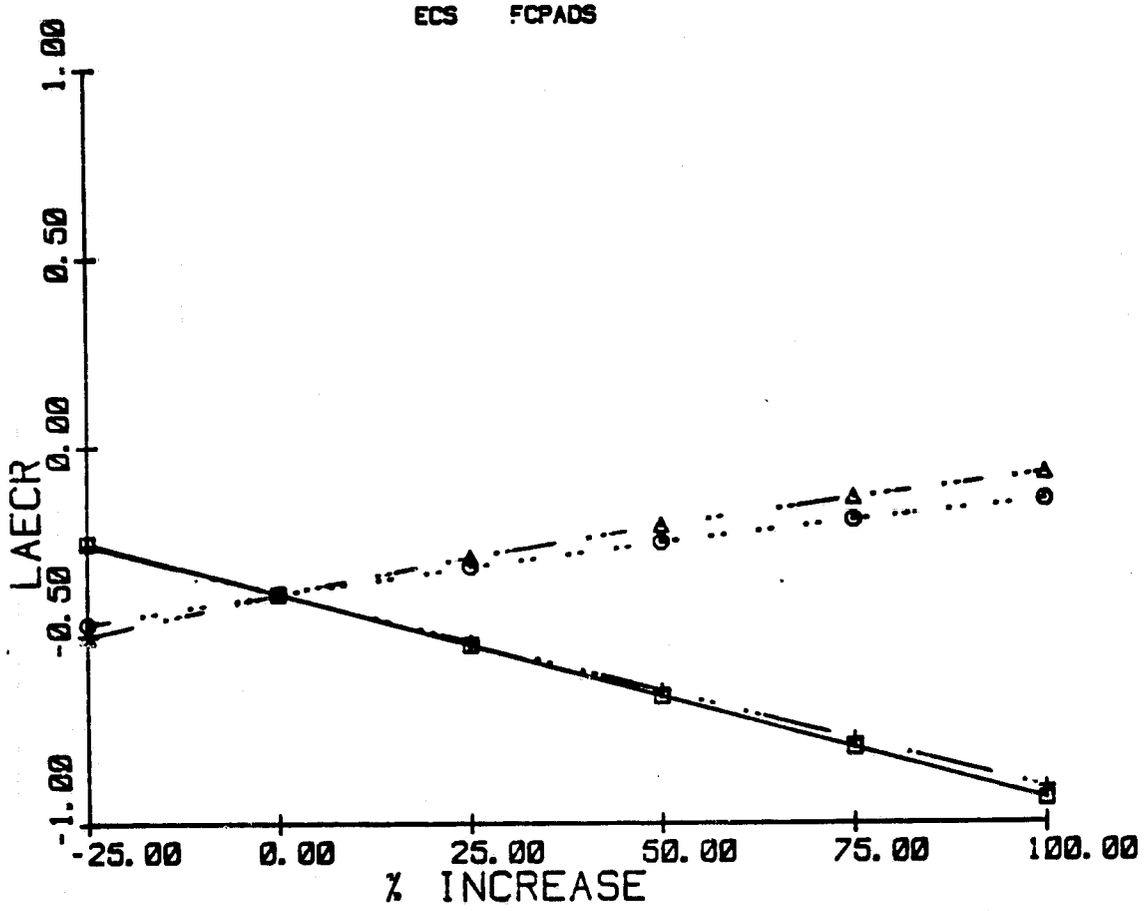
DATE04/09/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20111

ECS FCPADS



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 2		CAPITAL COST- 3.0
PROCESS HEAT- 24	CAPITAL COST- 1.6	LAEC -1.012
(BTU*10**6)	LAEC -0.728	ROI -0
WASTE FUEL- 0	FUEL -RESIDUAL	MW(GEN) -2
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 0.276		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

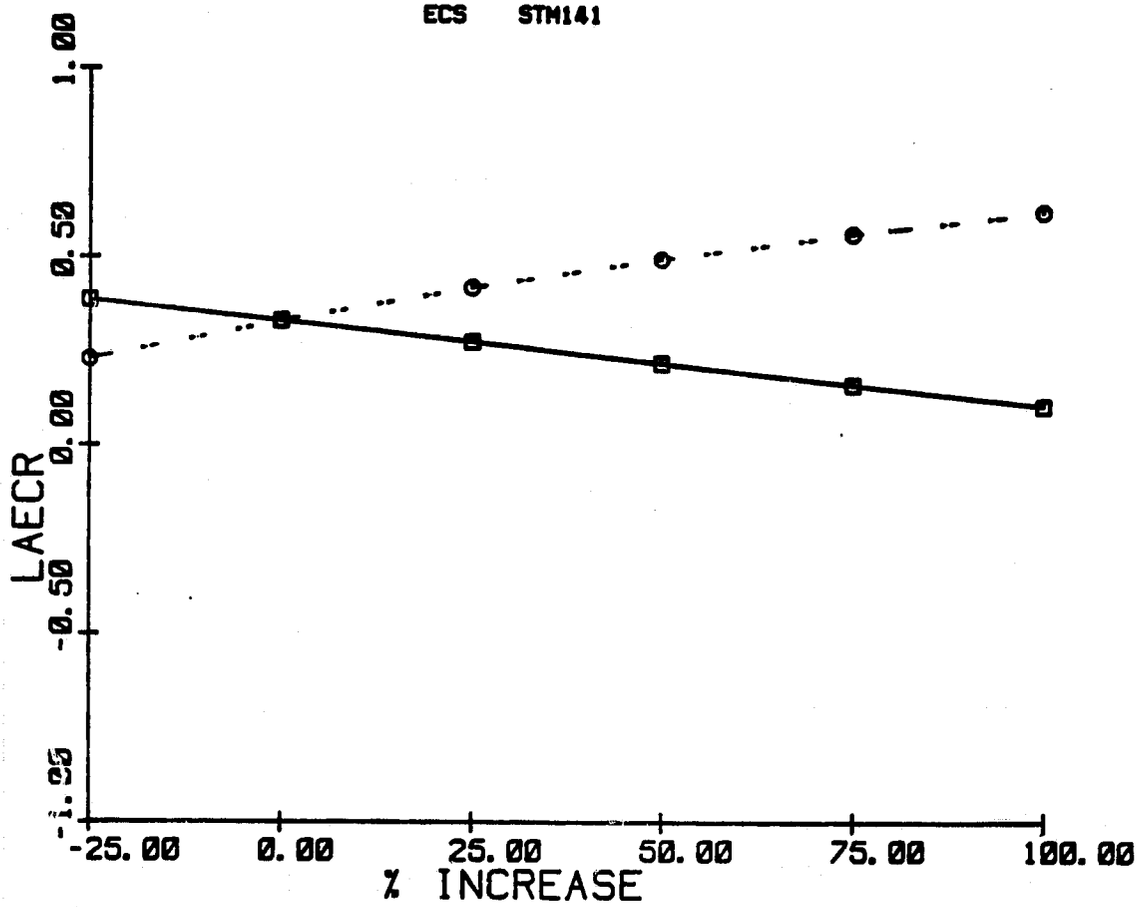
DATE04/00/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20401

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		CAPITAL COST- 41.6
PROCESS HEAT- 659	CAPITAL COST- 42.6	LAEC - 16.643
(BTU*10**6)	LAEC - 24.636	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 58
(BTU*10**6)		FUEL - COAL-AFB
POWER/HEAT- 0.148		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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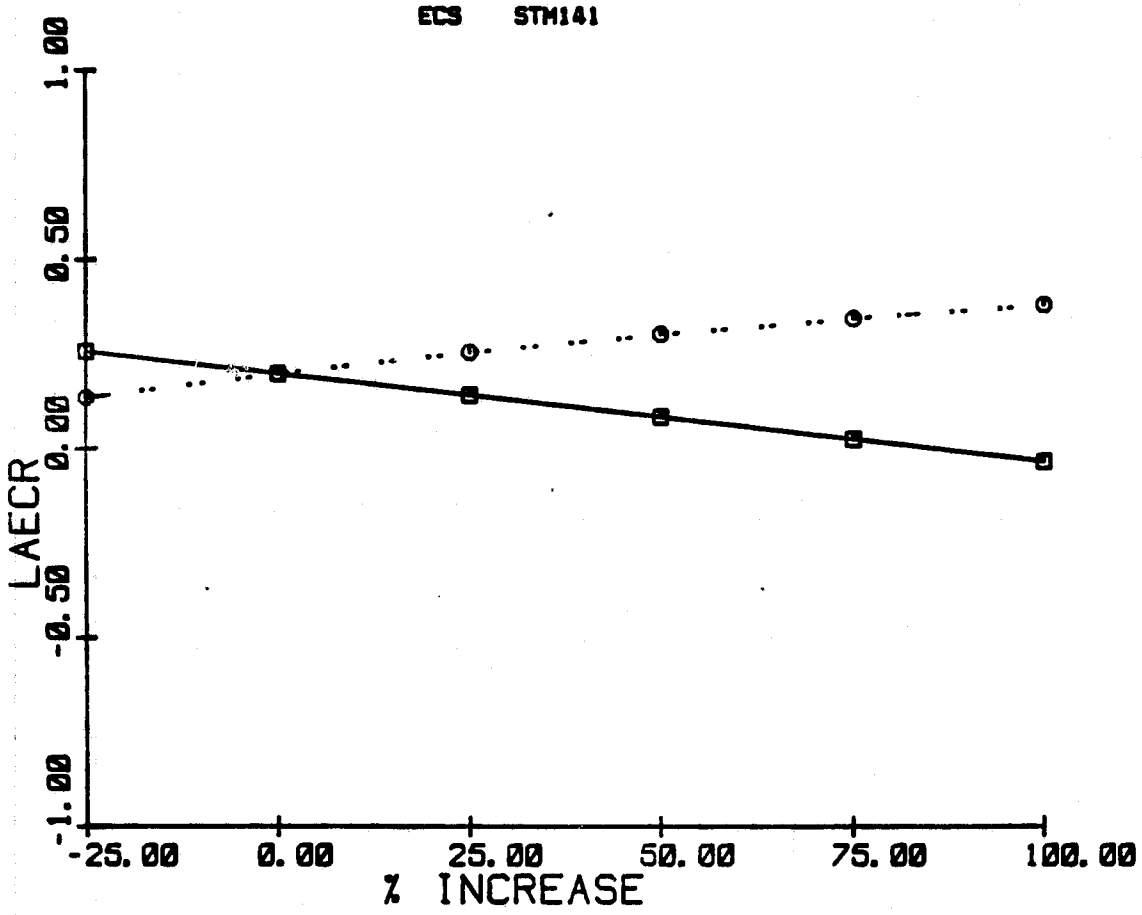
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20481

ECS STM141



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 20			CAPITAL COST- 43.4	
PROCESS HEAT- 650	CAPITAL COST- 42.0		LAEC	- 18.920
(BTU*10**6)	LAEC	- 24.830	ROI	- 0
WASTE FUEL- 0	FUEL	- COAL-FGD	MW(GEN)	- 20
(BTU*10**6)			FUEL	- COAL-AFB
POWER/HEAT- 0.148				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

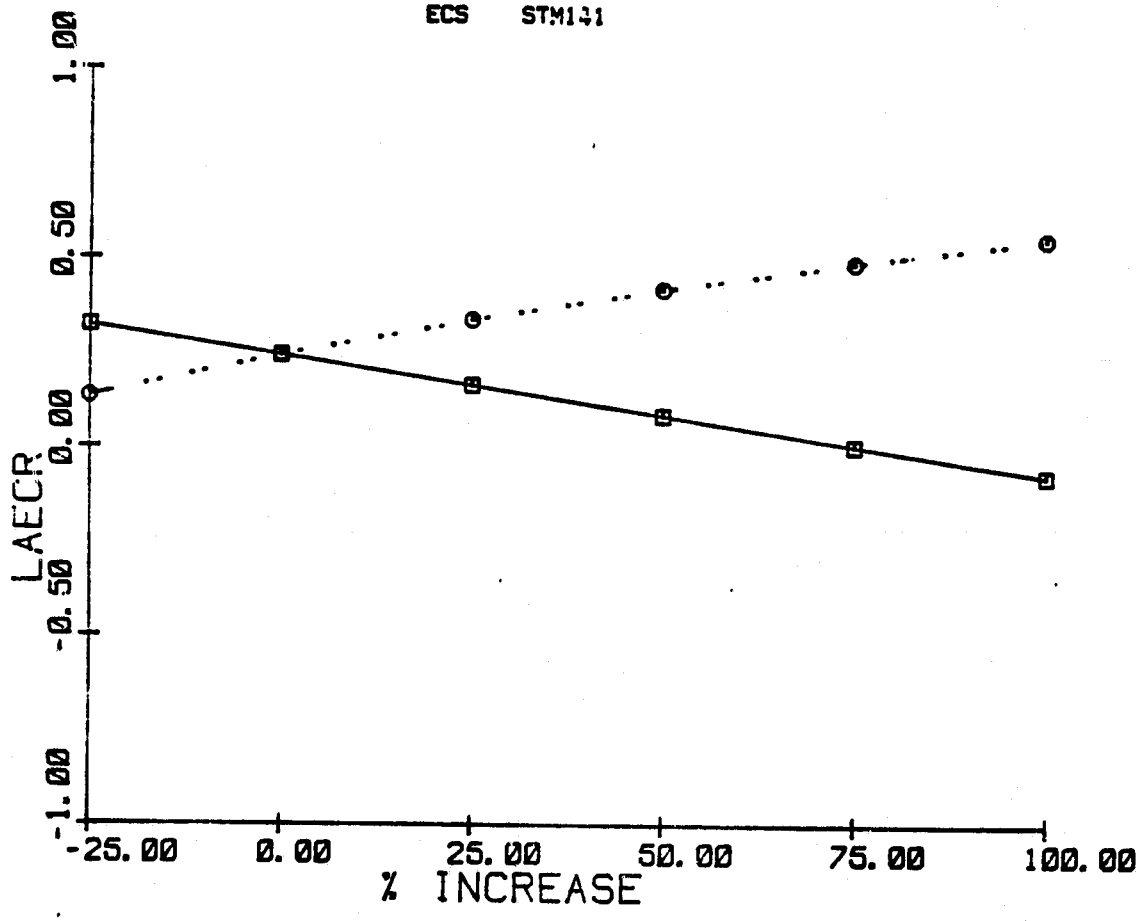
DATE04/09/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20461

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		
PROCESS HEAT- 659	CAPITAL COST- 42.8	CAPITAL COST- 59.0
(BTU*10**6)	LAEC - 24.838	LAEC - 18.833
WASTE FUEL- 0	FUEL - COAL-FGD	ROI - 0
(BTU*10**6)		MW(GEN) - 58
POWER/HEAT- 0.138		FUEL - COAL-FGD

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

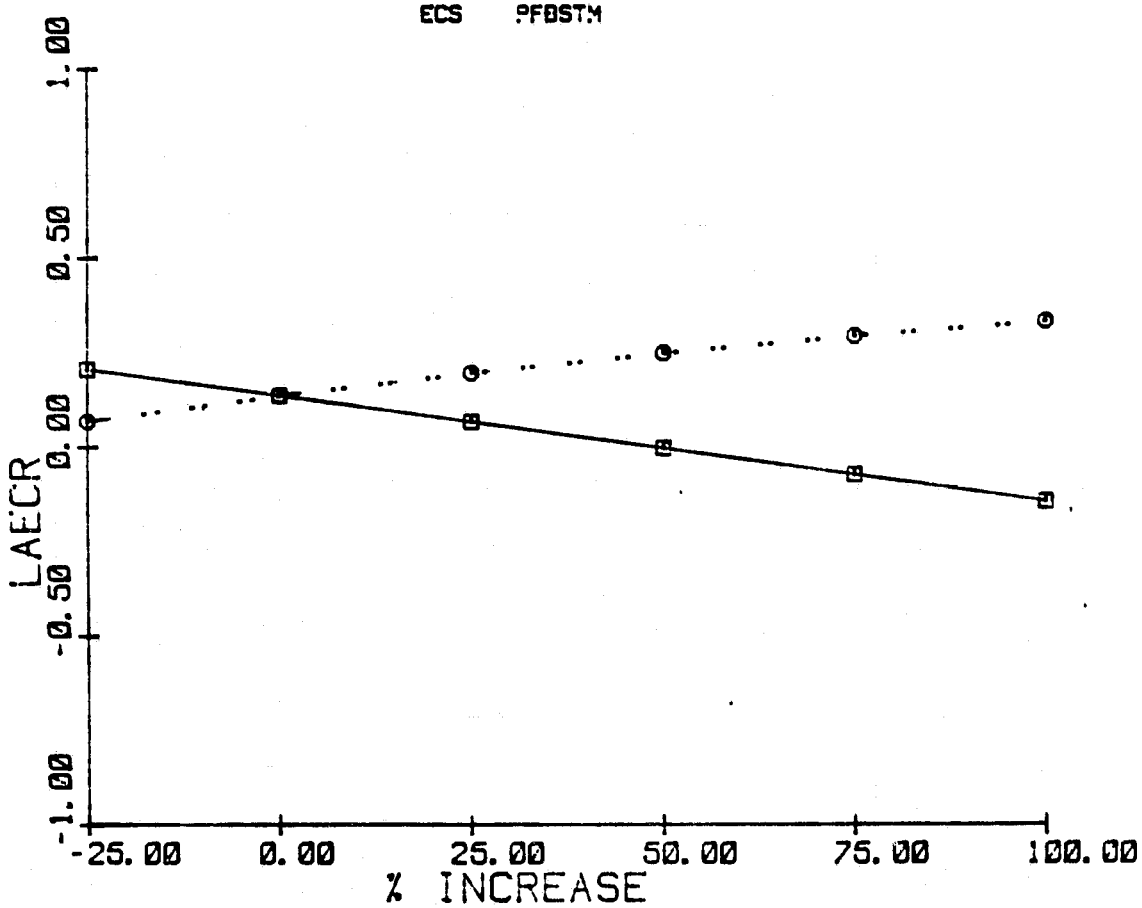
DATE04/09/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20461

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		CAPITAL COST-52.3
PROCESS HEAT-650	CAPITAL COST-42.8	LAEC -21.490
(BTU*10**6)	LAEC -24.636	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -29
(BTU*10**6)		FUEL -COAL-PFB
POWER/HEAT- 0.138		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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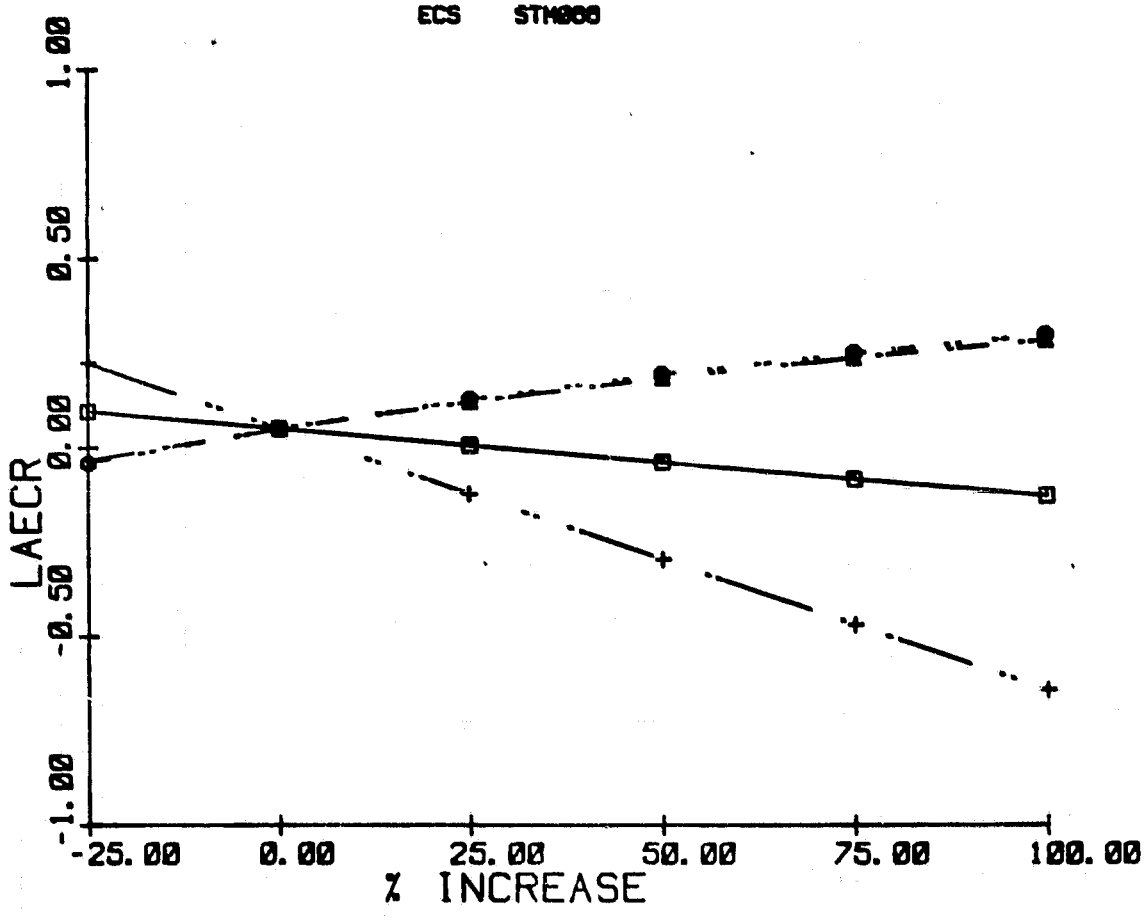
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20021

ECS STM000



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST-5.9
PROCESS HEAT-66	CAPITAL COST-7.1	LAEC -4.110
(BTU*10**6)	LAEC -4.335	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -6
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.240		

CAPITAL COST

ELECTRIC POWER

NO-COGN FUEL

ECS FUEL

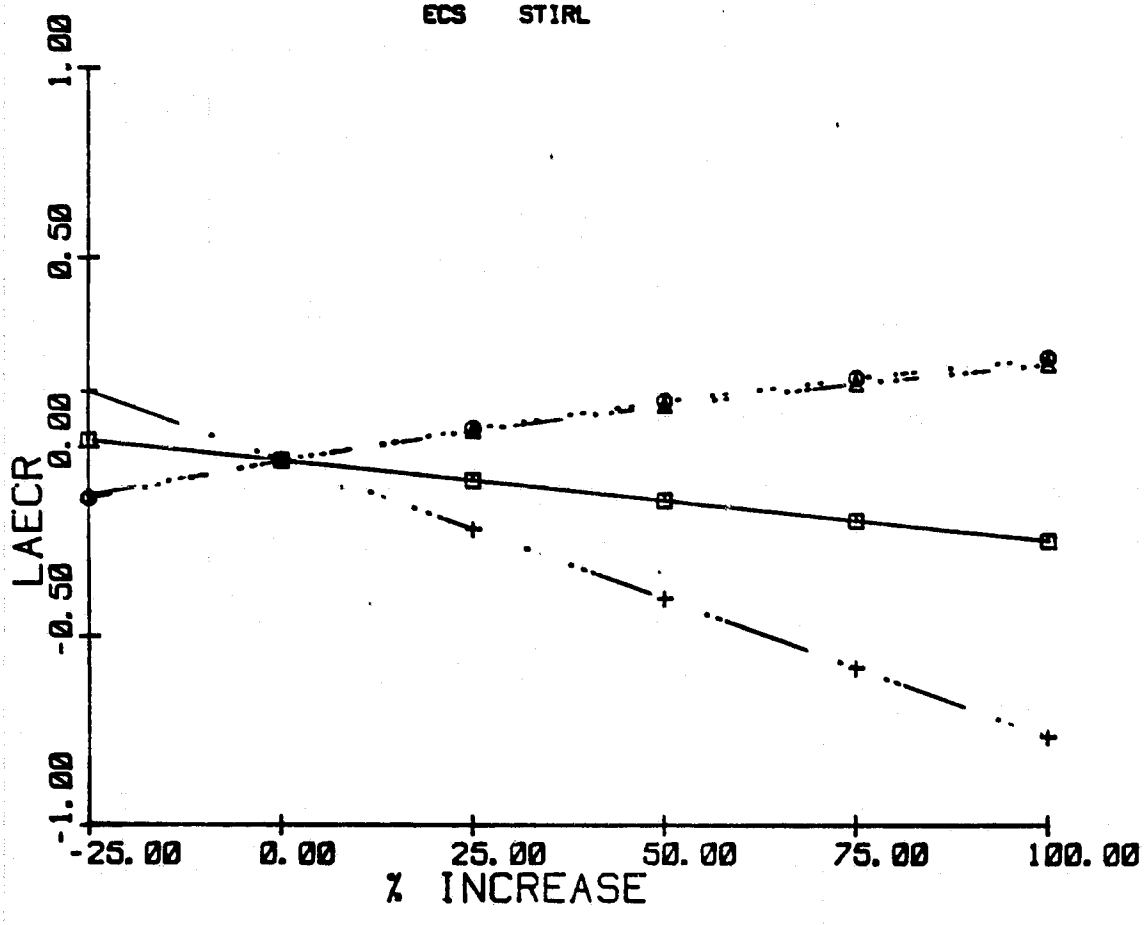
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20821

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST-7.0
PROCESS HEAT-66	CAPITAL COST-7.1	LAEC -4.491
(BTU*10**6)	LAEC -4.335	ROI -[illegible]
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -6
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.240		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

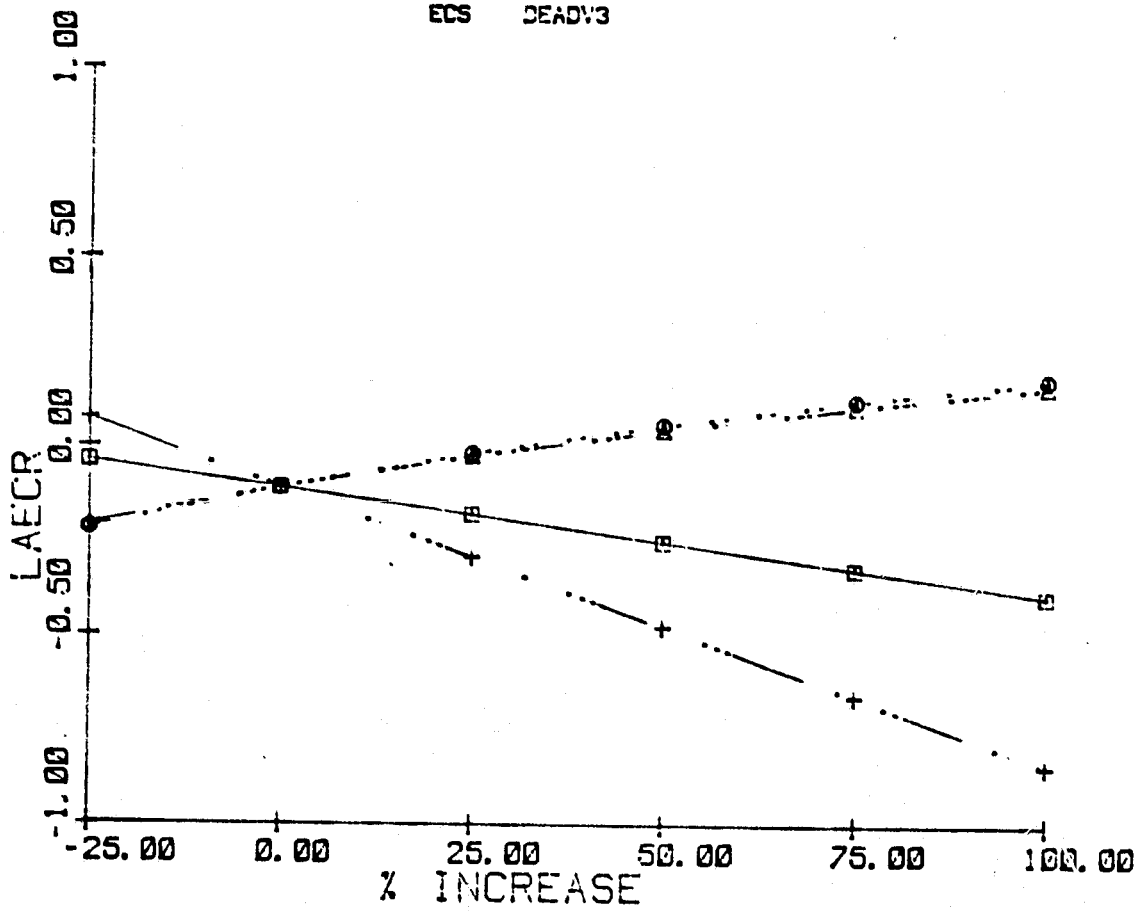
DATE04/09/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20821

ECS DEADV3



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		
PROCESS HEAT- 66	CAPITAL COST- 7.1	CAPITAL COST- 8.1
(BTU*10**6)	LAEC - 1.336	LAEC - 1.813
WASTE FUEL- 0	FUEL - COAL-AFB	ROI - 0
(BTU*10**6)		MW(GEN) - 6
POWER/HEAT- 0.240		FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-COGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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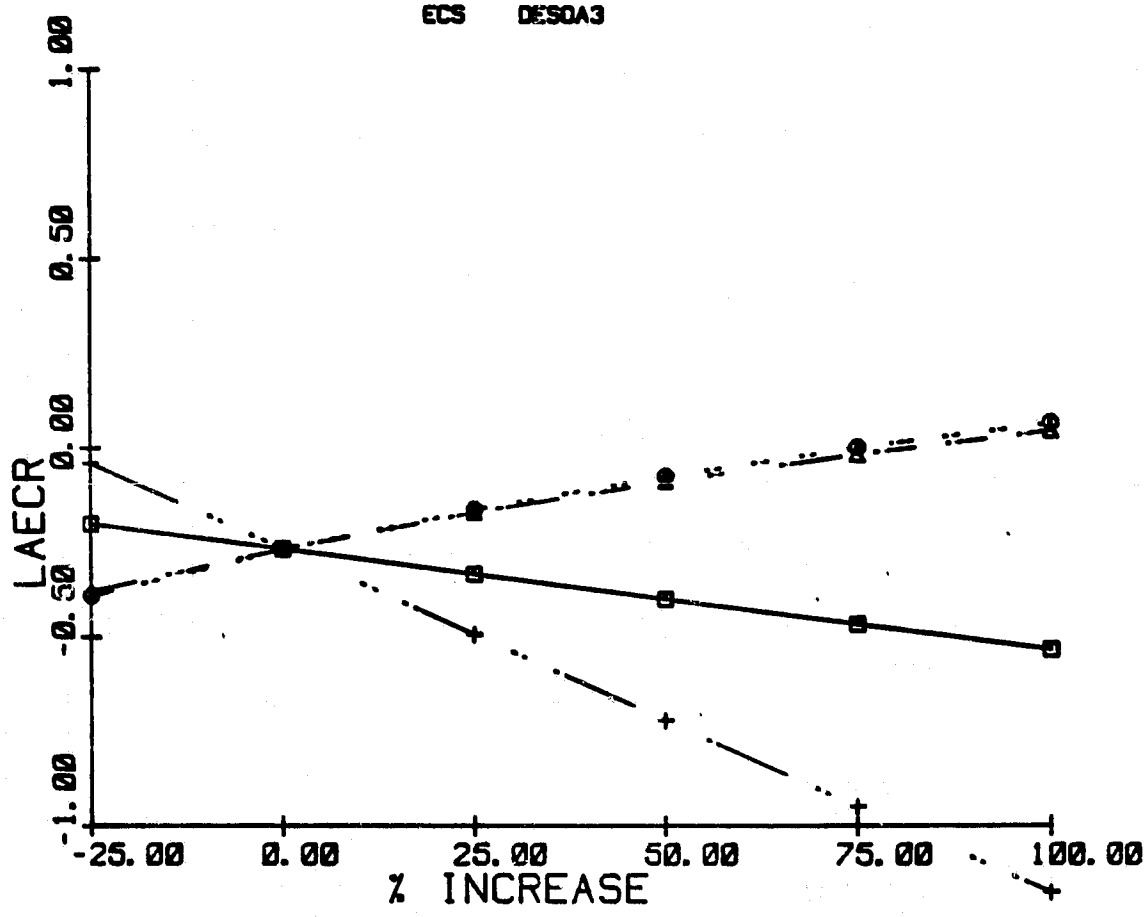
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20021

ECS DESOA3



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST-6.6
PROCESS HEAT-66	CAPITAL COST-7.1	LAEC -5.498
(BTU*10**6)	LAEC -4.335	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -6
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 0.240		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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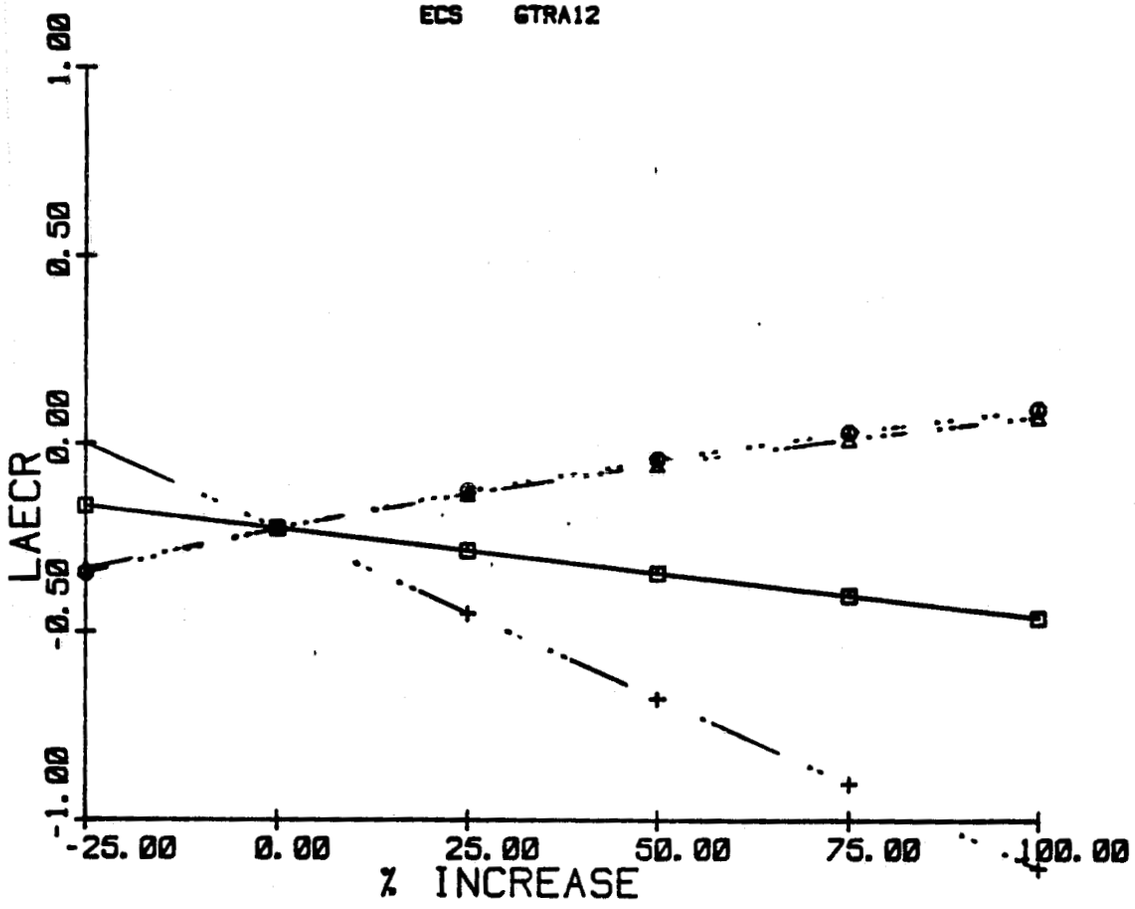
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20621

ECS GTRA12



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST-7.6
PROCESS HEAT-66	CAPITAL COST-7.1	LAEC -5.309
(BTU*10**6)	LAEC -4.335	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -6
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 0.240		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

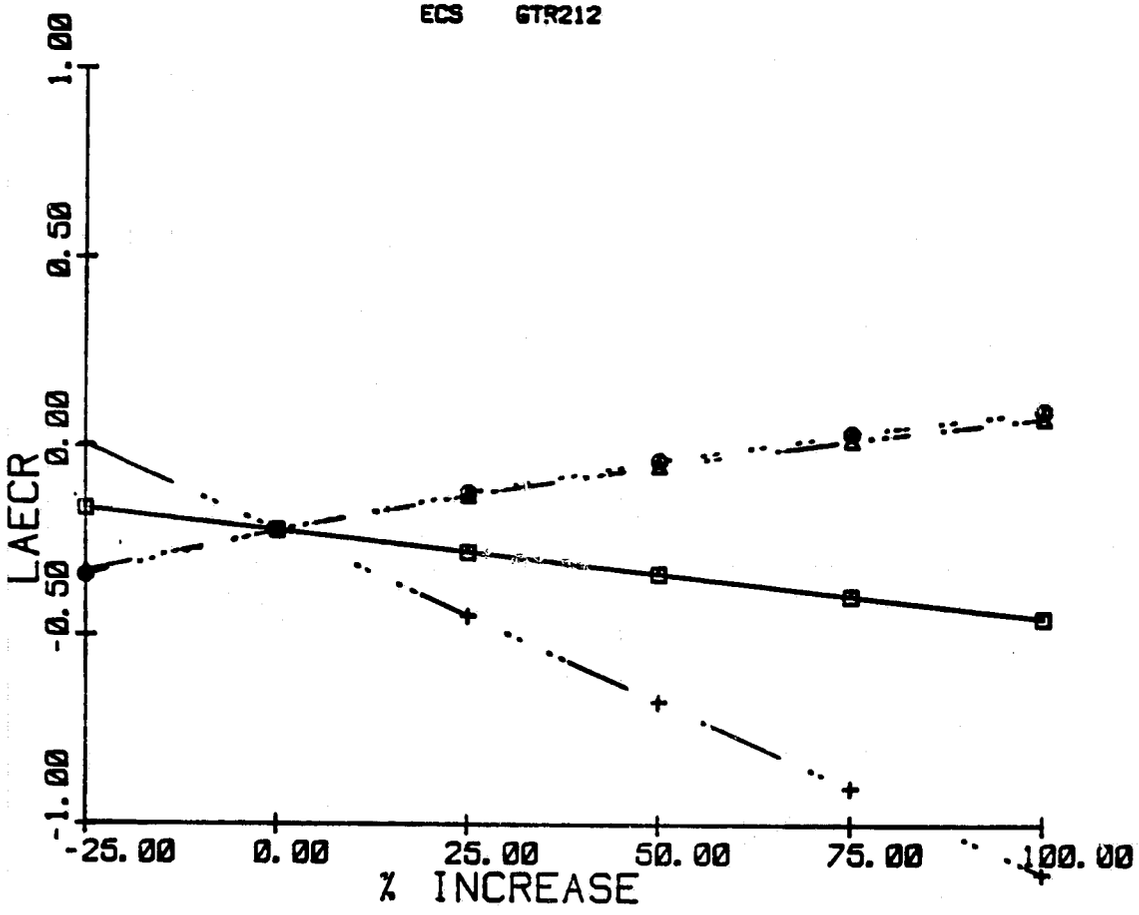
DATE04/09/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20621

ECS GTR212



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		
PROCESS HEAT- 86	CAPITAL COST- 7.1	CAPITAL COST- 7.6
(BTU*10**6)	LAEC - 4.335	LAEC - 5.300
WASTE FUEL- 0	FUEL - COAL-AFB	ROI - 0
(BTU*10**6)		MW(GEN) - 6
POWER/HEAT- 0.240		FUEL - DISTILLA

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

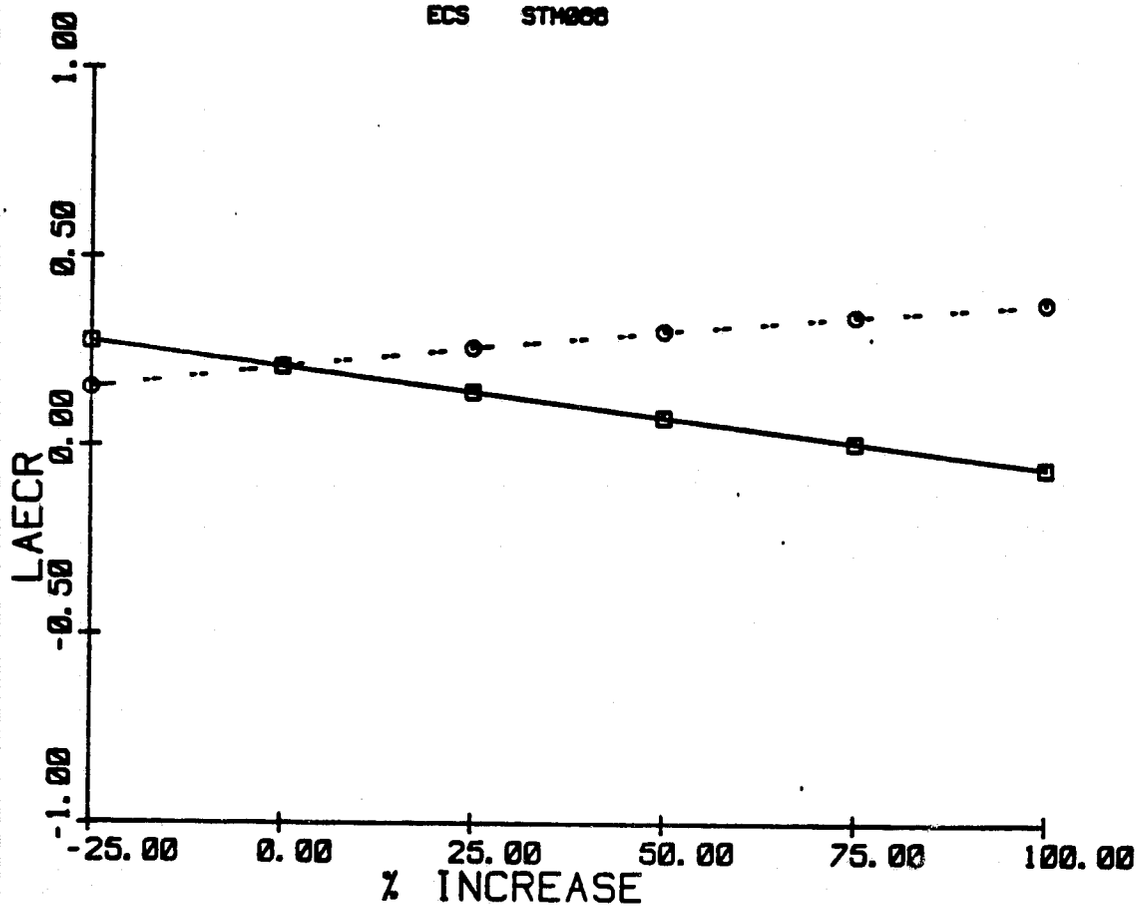
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 22601

ECS STM006



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST- 12.4
PROCESS HEAT- 158	CAPITAL COST- 13.5	LAEC -4.954
(BTU*10**6)	LAEC -6.265	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -7
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.134		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

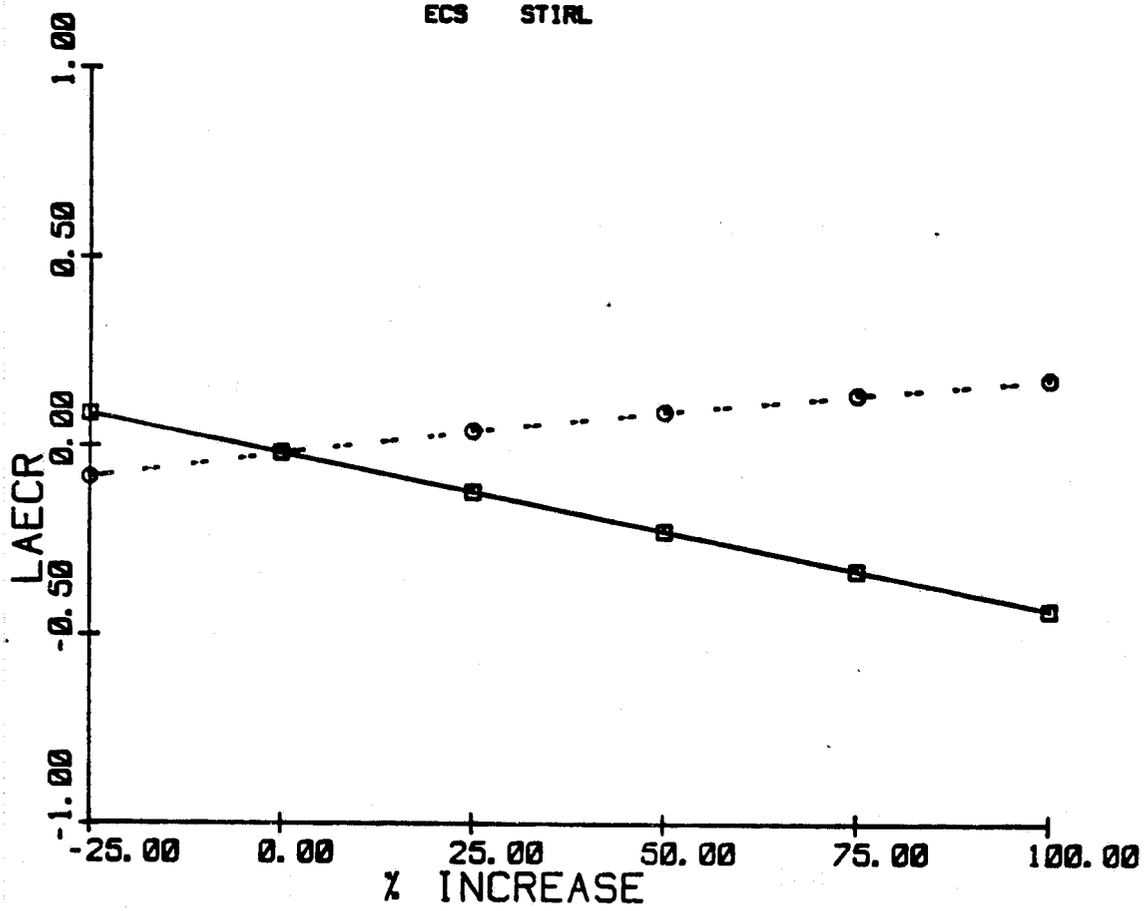
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 22001

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST- 19.9
PROCESS HEAT- 158	CAPITAL COST- 13.5	LAEC -0.363
(BTU*10**6)	LAEC -0.265	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -6
(BTU*10**6)		FUEL -COAL
POWER/HEAT- 0.134		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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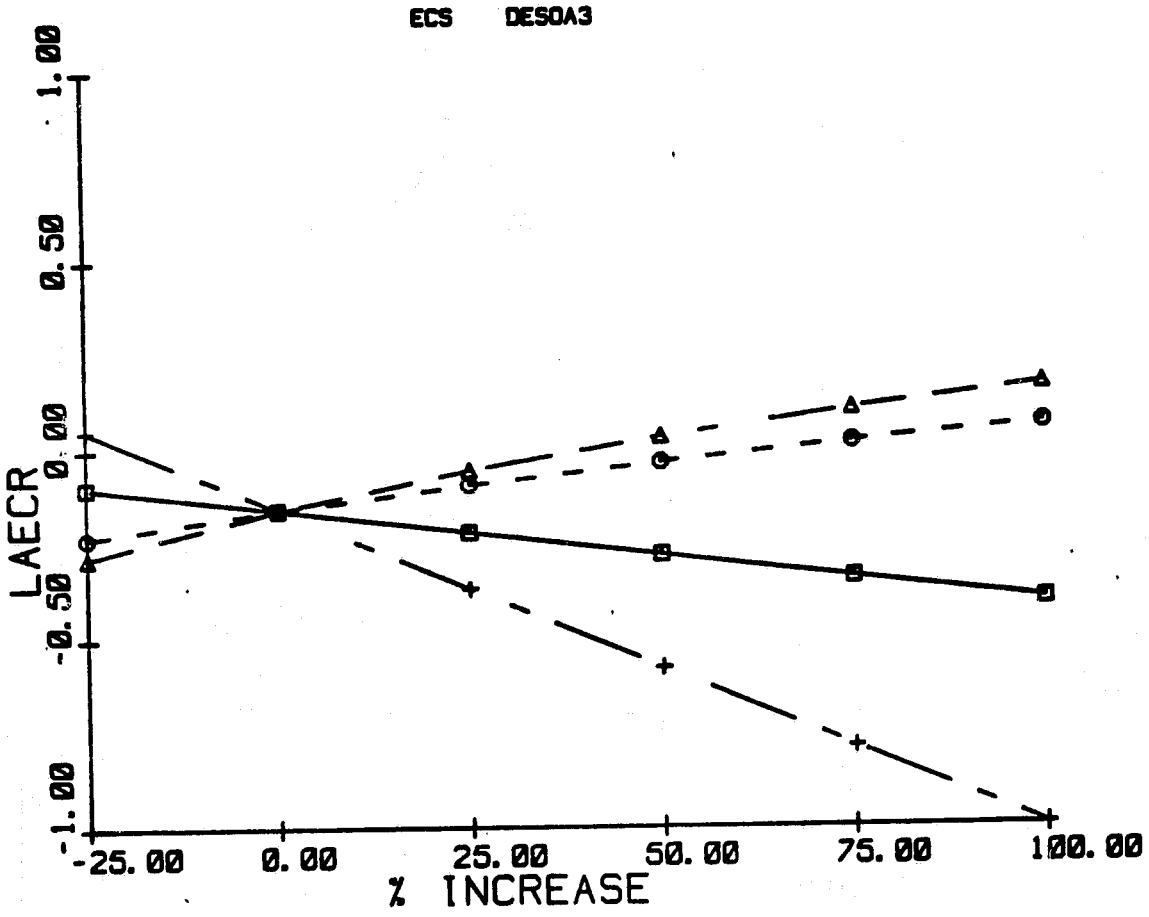
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 22001

ECS DESOA3



BASE CASE

NO COGENERATION

PROCESS

MW- 6

PROCESS HEAT- 158
(BTU*10**6)

WASTE FUEL- 0
(BTU*10**6)

POWER/HEAT- 0.134

CAPITAL COST- 13.5

LAEC - 6.265

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 11.6

LAEC - 7.258

ROI - 0

MW(GEN) - 6

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

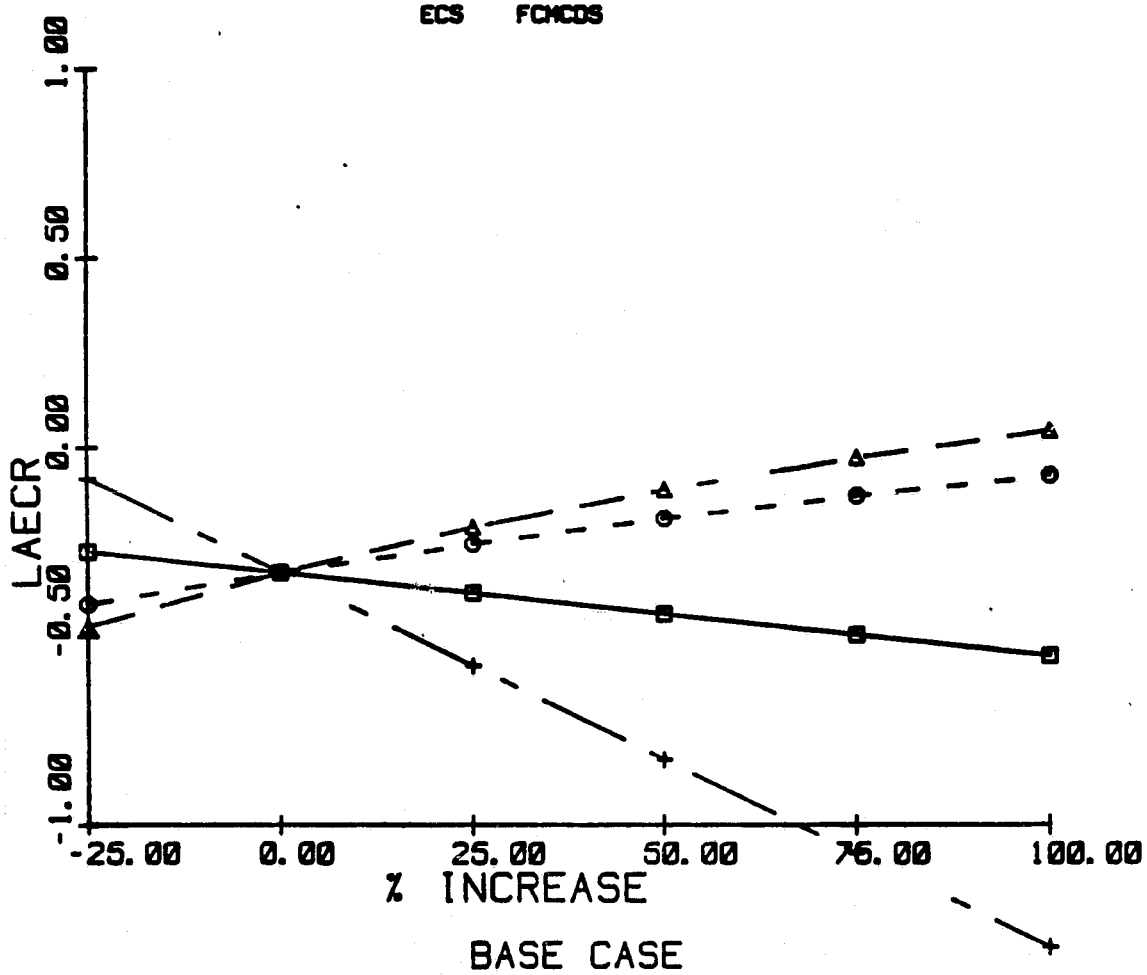
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 22681

ECS FCMCDS



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST- 10.6
PROCESS HEAT- 158	CAPITAL COST- 13.5	LAEC -0.339
(BTU*10**6)	LAEC -0.265	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -6
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 0.134		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

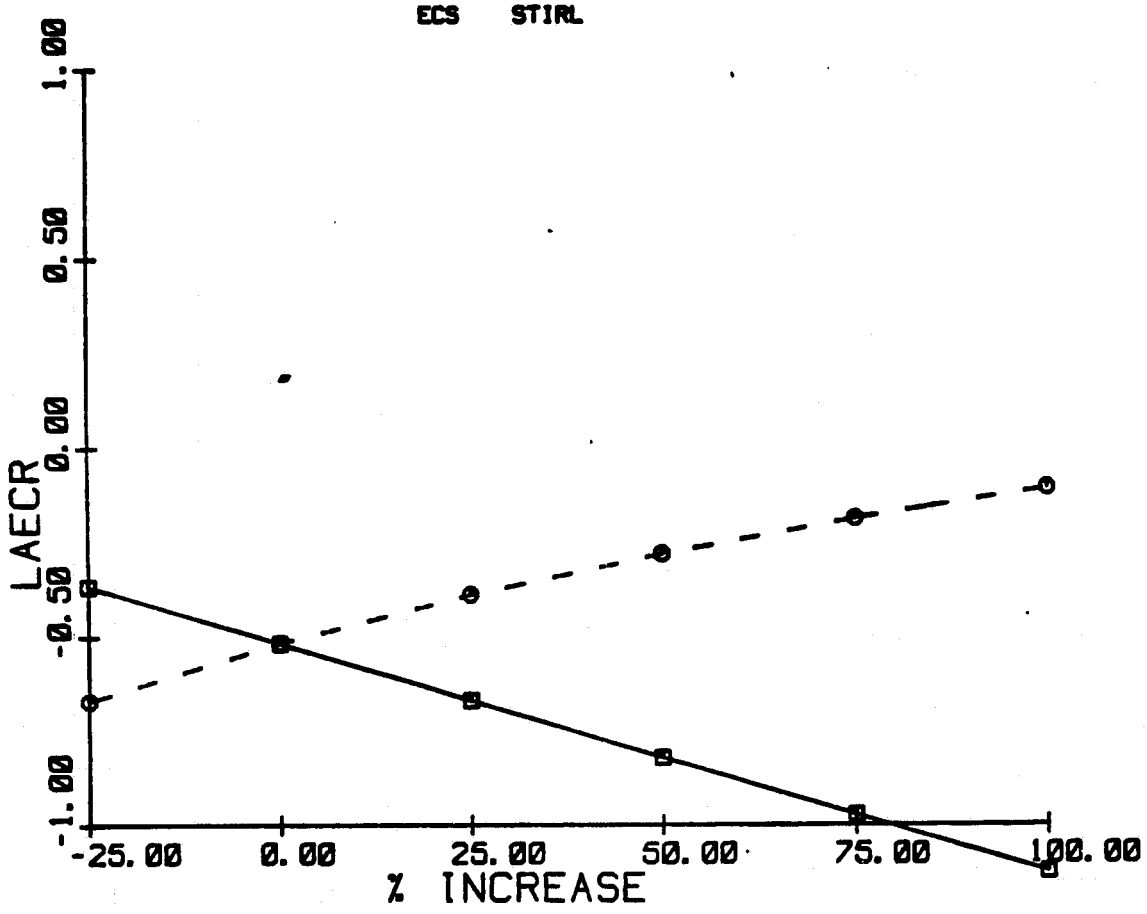
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24211

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 2		CAPITAL COST- 2.9
PROCESS HEAT- 30	CAPITAL COST- 1.8	LAEC - 0.954
(BTU*10**6)	LAEC - 0.626	ROI - 0
WASTE FUEL- 24	FUEL - RESIDUAL	MW(GEN) - 2
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.171		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

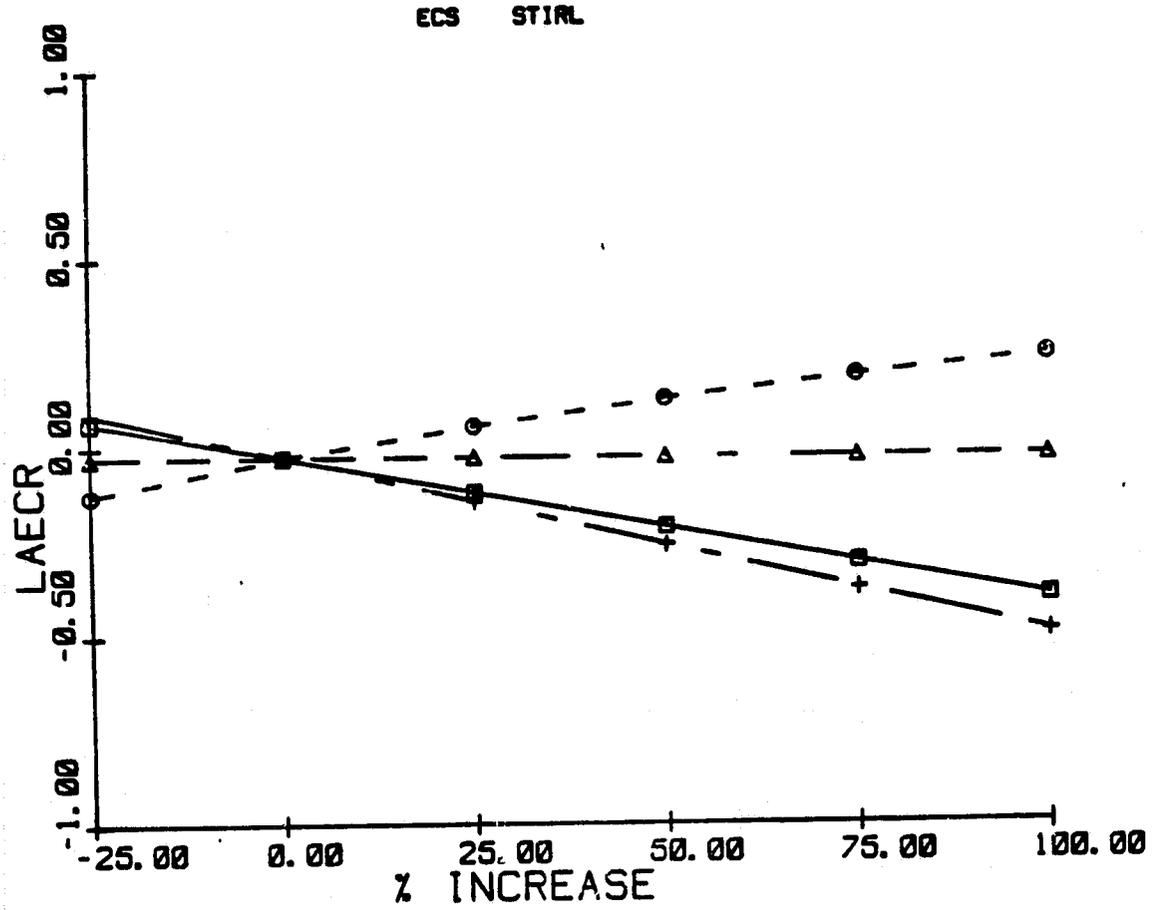
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24361

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 3		CAPITAL COST- 5.6
PROCESS HEAT- 75	CAPITAL COST- 6.5	LAEC -2.035
(BTU*10**6)	LAEC -1.900	ROI -0
WASTE FUEL- 84	FUEL -COAL-AFB	MW(GEN) -3
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.136		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

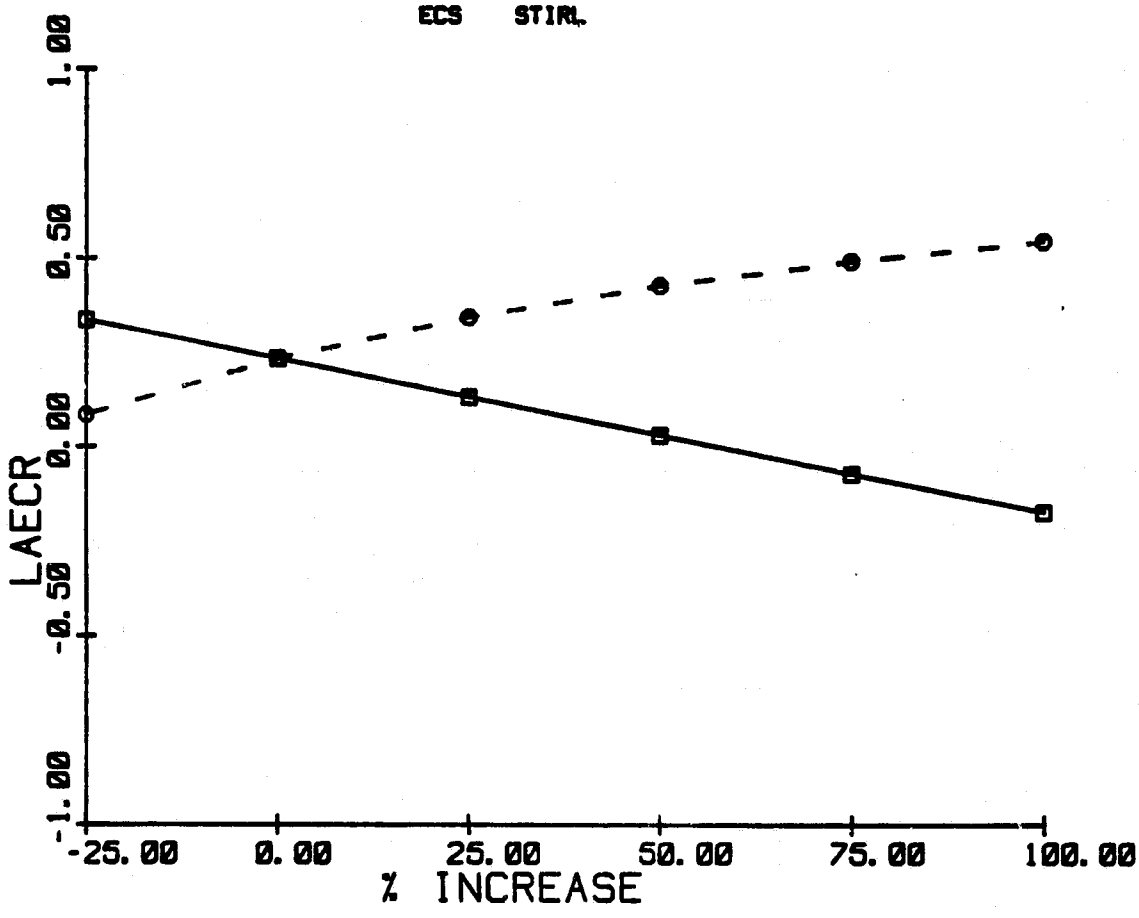
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24021

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 5		CAPITAL COST-7.7
PROCESS HEAT- 37	CAPITAL COST-4.4	LAEC -1.900
(BTU*10**6)	LAEC -2.488	ROI -0
WASTE FUEL- 41	FUEL -COAL-AFB	MW(GEN) -5
(BTU*10**6)		FUEL -COAL
POWER/HEAT- 0.461		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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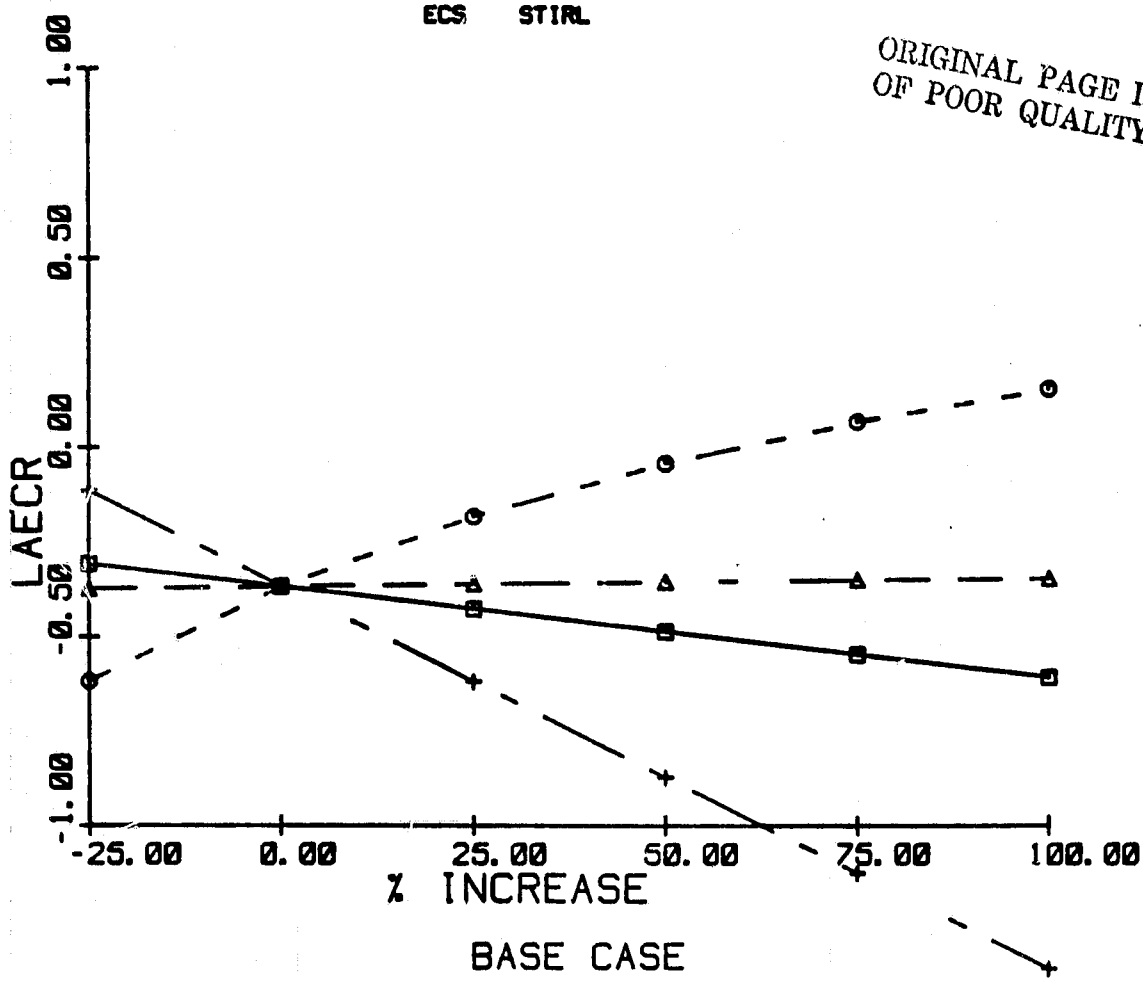
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24021

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 5		CAPITAL COST- 4.6
PROCESS HEAT- 37	CAPITAL COST- 4.1	LAEC -3.403
(BTU*10**6)	LAEC -2.488	ROI -0
WASTE FUEL- 3	FUEL -COAL-AFB	MW(GEN) -5
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 0.461		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

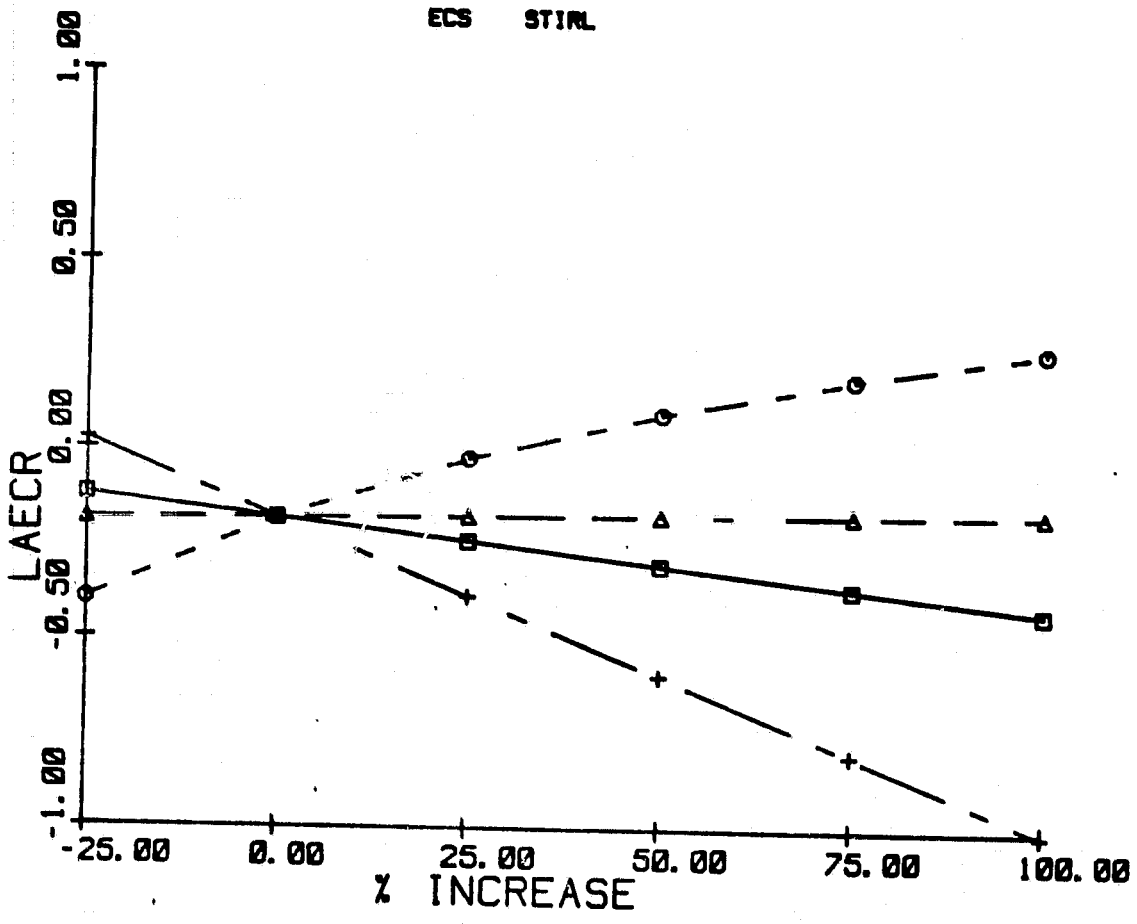
DATE 04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24021

ECS STIRL



BASE CASE

NO COGENERATION

PROCESS

MW- 5

PROCESS HEAT- 37

(BTU*10**6)

WASTE FUEL- 3

(BTU*10**6)

POWER/HEAT- 0.481

CAPITAL COST- 4.4

LAEC - 2.488

FUEL - COAL-AFB

COGENERATION

CAPITAL COST- 4.6

LAEC - 2.940

ROI - 0

MW(GEN) - 5

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

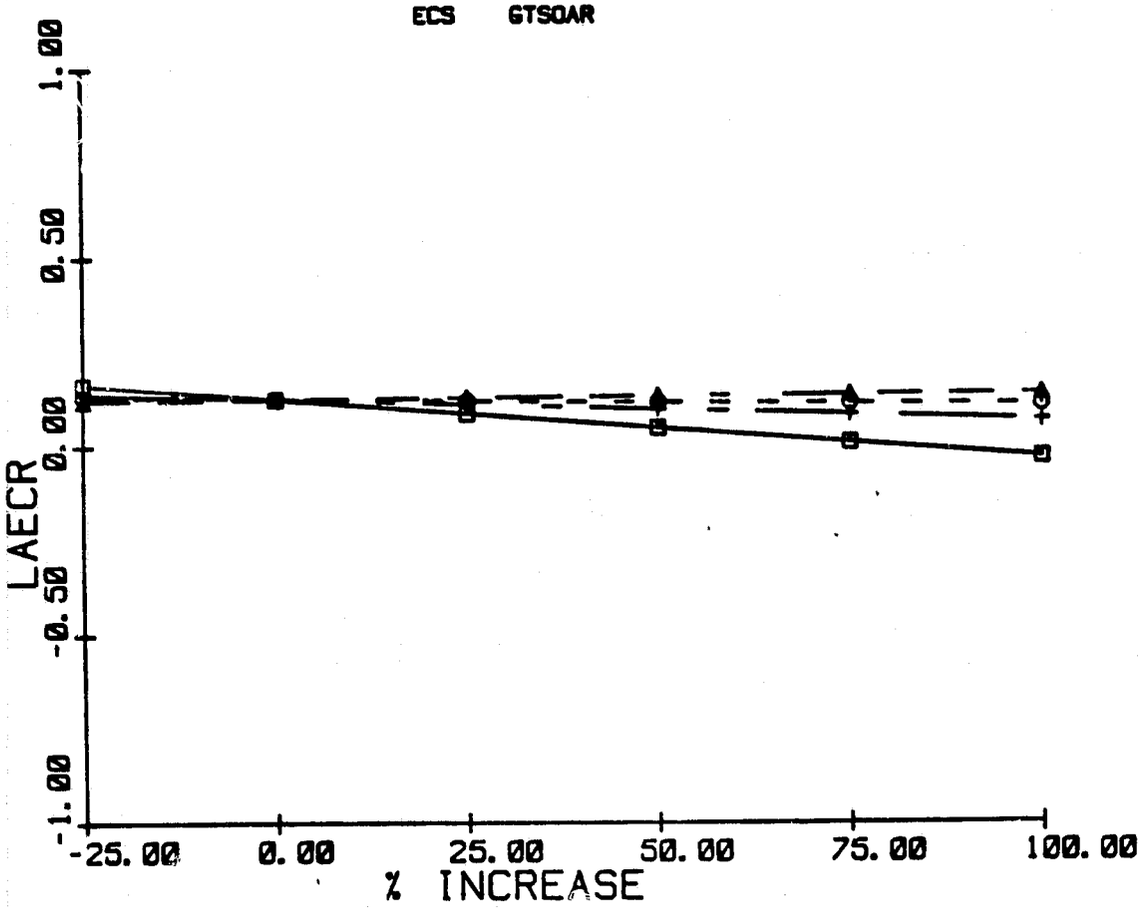
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24021

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 5		CAPITAL COST- 3.0
PROCESS HEAT- 37	CAPITAL COST- 4.4	LAEC -2.180
(BTU*10**6)	LAEC -2.486	ROI -0
WASTE FUEL- 41	FUEL -COAL-AFB	MW(GEN) -0
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.461		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

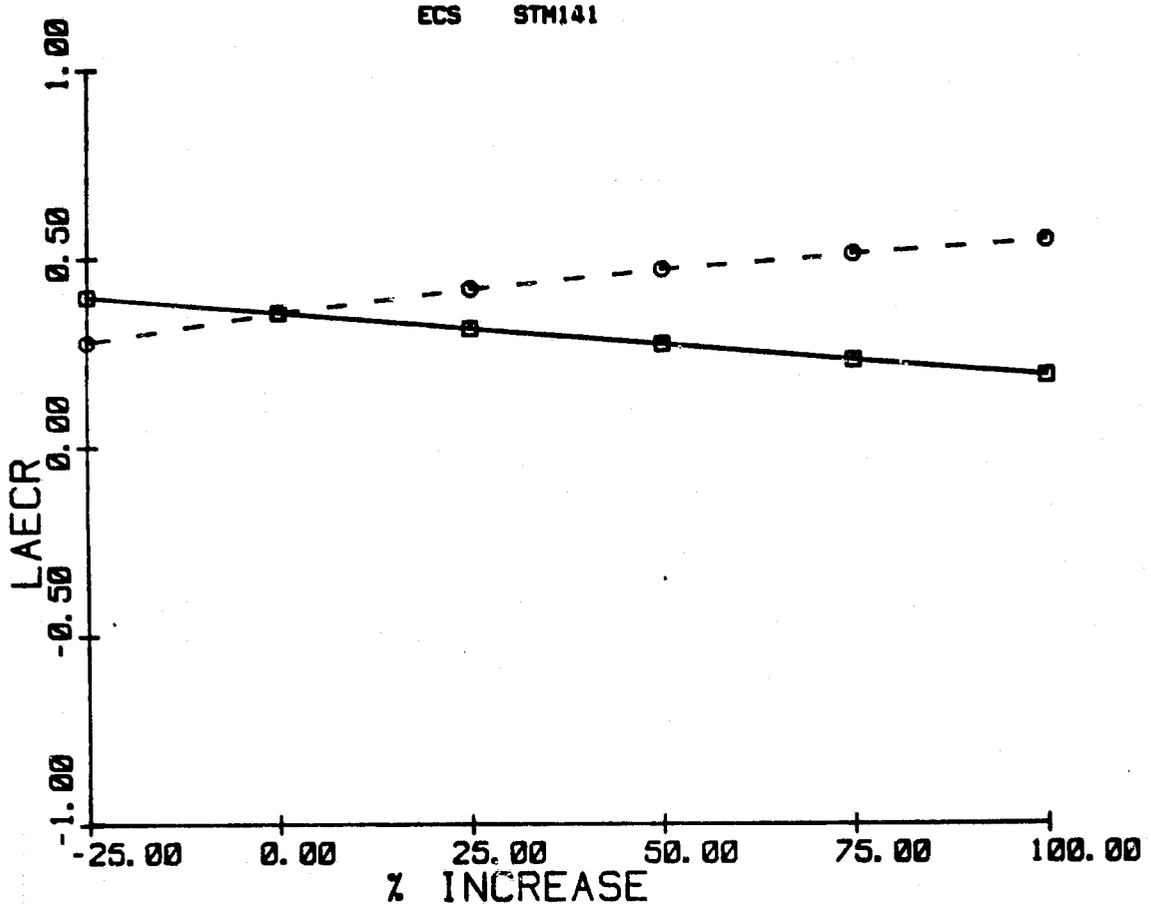
DATE 04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20212

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 50		CAPITAL COST- 42.6
PROCESS HEAT- 760	CAPITAL COST- 47.9	LAEC - 21.632
(BTU*10**6)	LAEC - 33.879	ROI - 0
WASTE FUEL- 353	FUEL - COAL-FGD	MW(GEN) - 47
(BTU*10**6)		FUEL - COAL-AFB
POWER/HEAT- 0.219		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

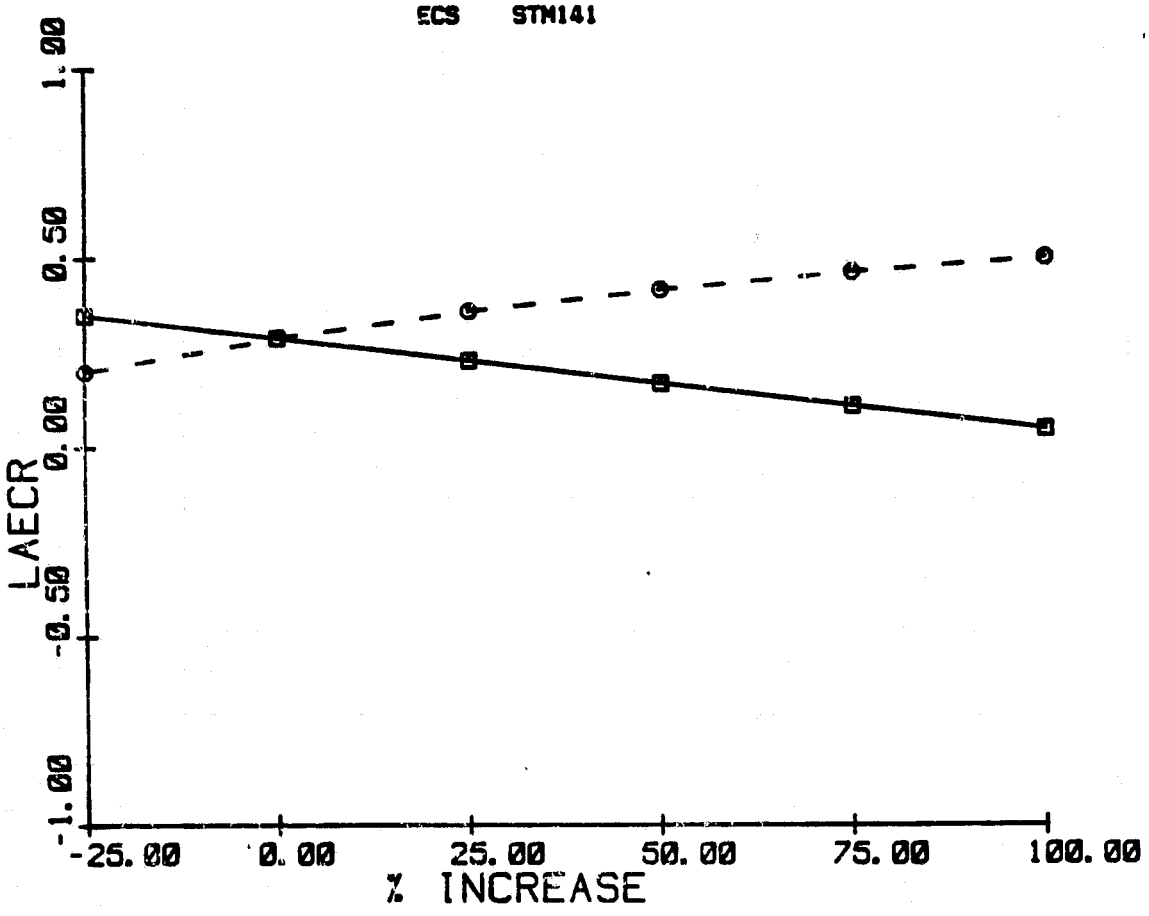
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20212

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 50		CAPITAL COST-81.3
PROCESS HEAT-780	CAPITAL COST-47.9	LAEC -24.121
(BTU*10**6)	LAEC -33.670	ROI -0
WASTE FUEL- 353	FUEL -COAL-FGD	MW(GEN) -47
(BTU*10**6)		FUEL -COAL-FGD
POWER/HEAT- 0.219		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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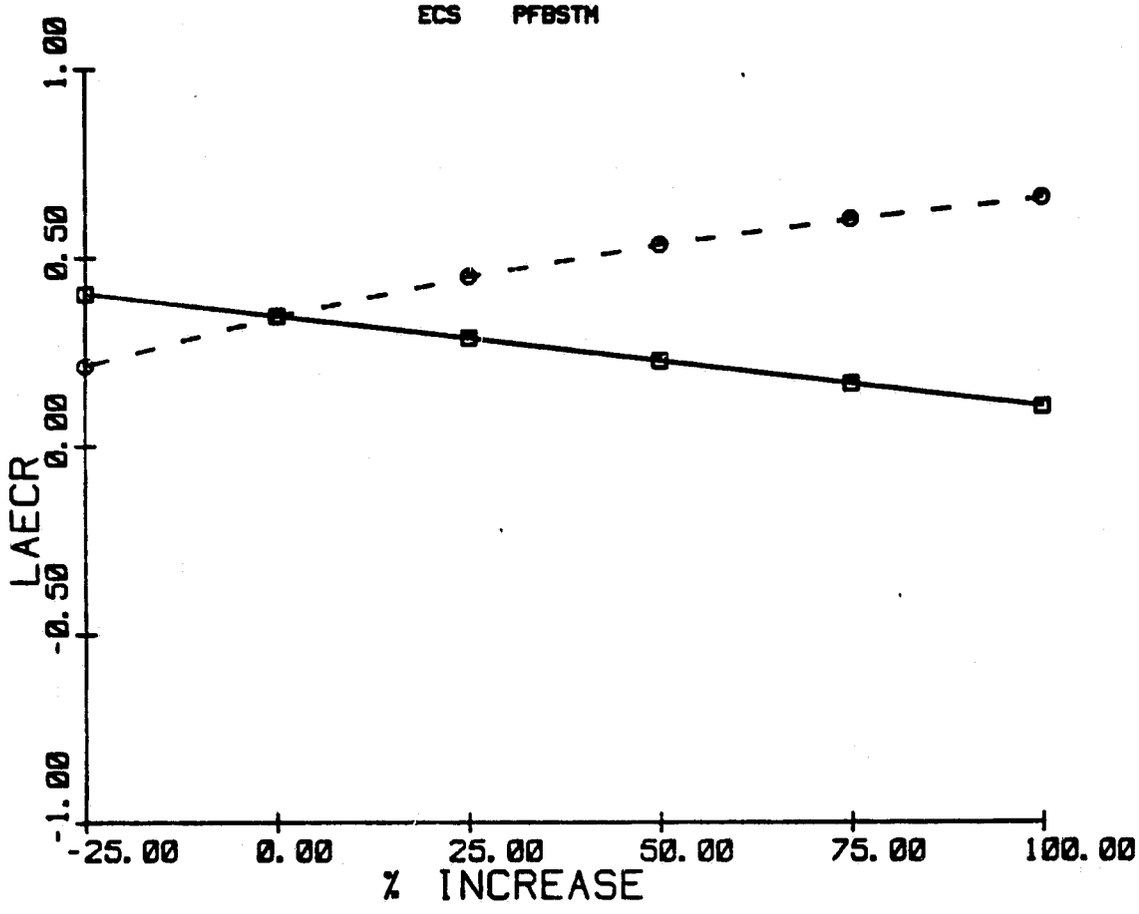
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 26212

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 50			CAPITAL COST- 60.9	
PROCESS HEAT- 700	CAPITAL COST- 47.9		LAEC	- 22.216
(BTU*10**6)	LAEC	- 33.679	ROI	- 0
WASTE FUEL- 353	FUEL	- COAL-FGD	MW(GEN)	- 77
(BTU*10**6)			FUEL	- COAL-PFB
POWER/HEAT- 0.219				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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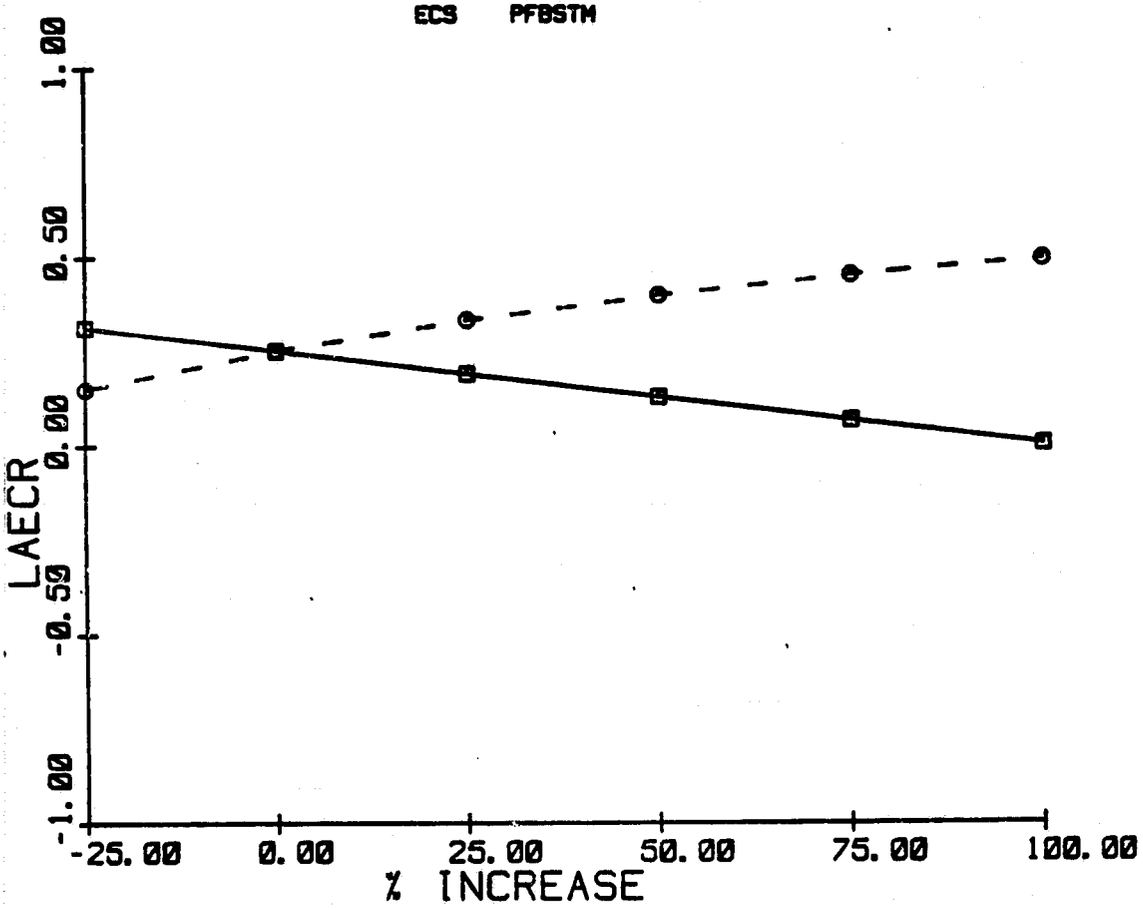
SENSITIVITY STUDY

PROCESS 20212

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 50		CAPITAL COST- 63.2
PROCESS HEAT- 780	CAPITAL COST- 47.9	LAEC - 25.370
(BTU*10**6)	LAEC - 33.670	ROI - 0
WASTE FUEL- 353	FUEL - COAL-FGD	MW(GEN) - 50
(BTU*10**6)		FUEL - COAL-PFB
POWER/HEAT- 0.219		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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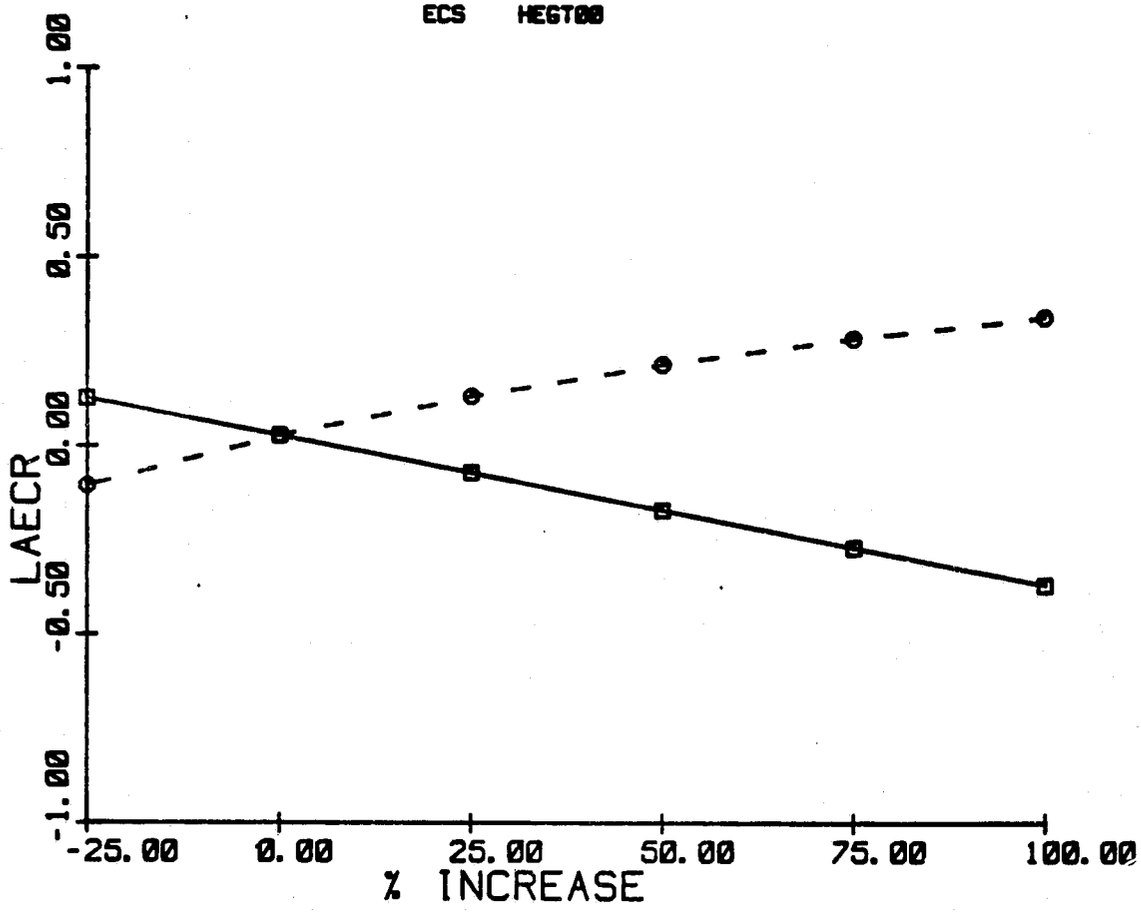
SENSITIVITY STUDY

PROCESS 20212

ECS HEGT00



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 50		CAPITAL COST- 100.7
PROCESS HEAT- 700	CAPITAL COST- 47.9	LAEC - 32.983
(BTU*10**6)	LAEC - 33.079	ROI - 0
WASTE FUEL- 353	FUEL - COAL-FGD	MW(GEN) - 50
(BTU*10**6)		FUEL - COAL-AFB
POWER/HEAT- 0.219		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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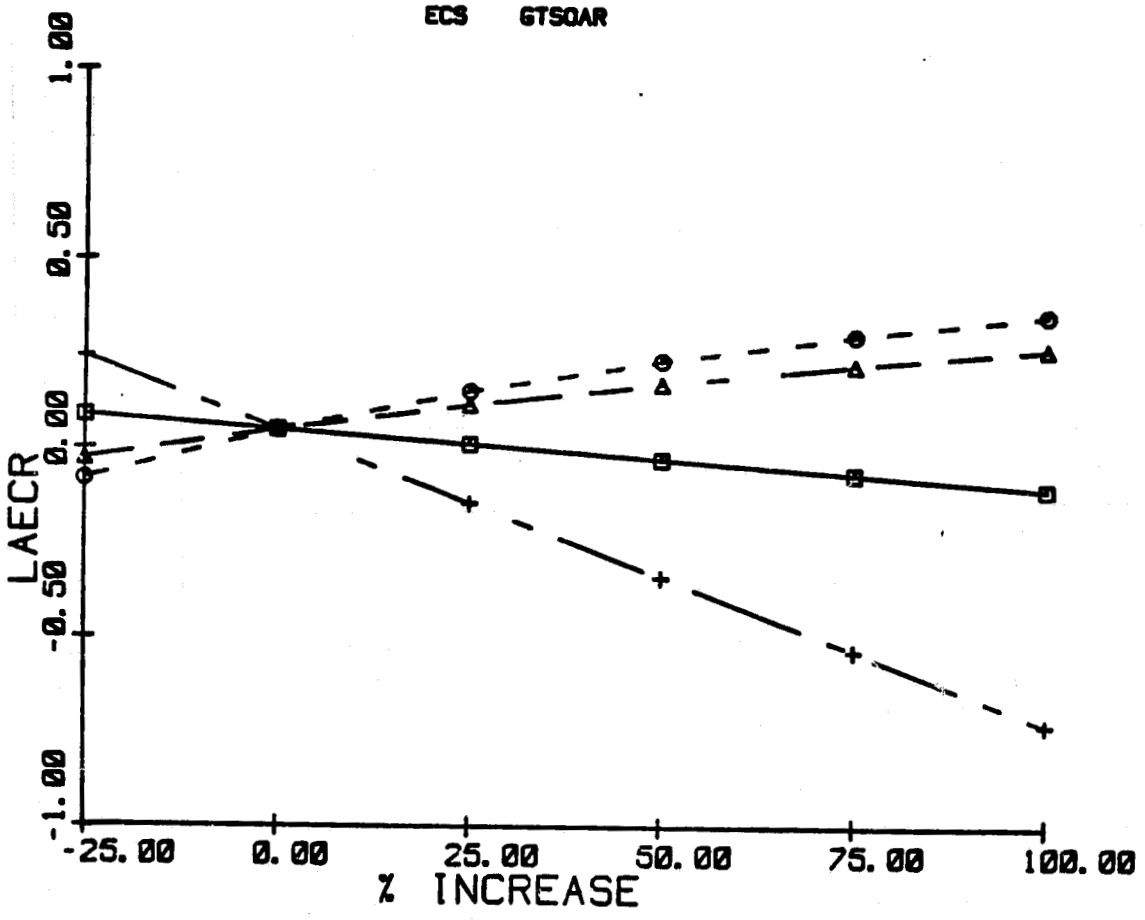
SENSITIVITY STUDY

PROCESS 26212

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 50		CAPITAL COST- 39.9
PROCESS HEAT- 700	CAPITAL COST- 47.9	LAEC - 32.270
(BTU*10**6)	LAEC - 33.679	ROI - 0
WASTE FUEL- 353	FUEL - COAL-FGD	MW(GEN) - 50
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.219		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

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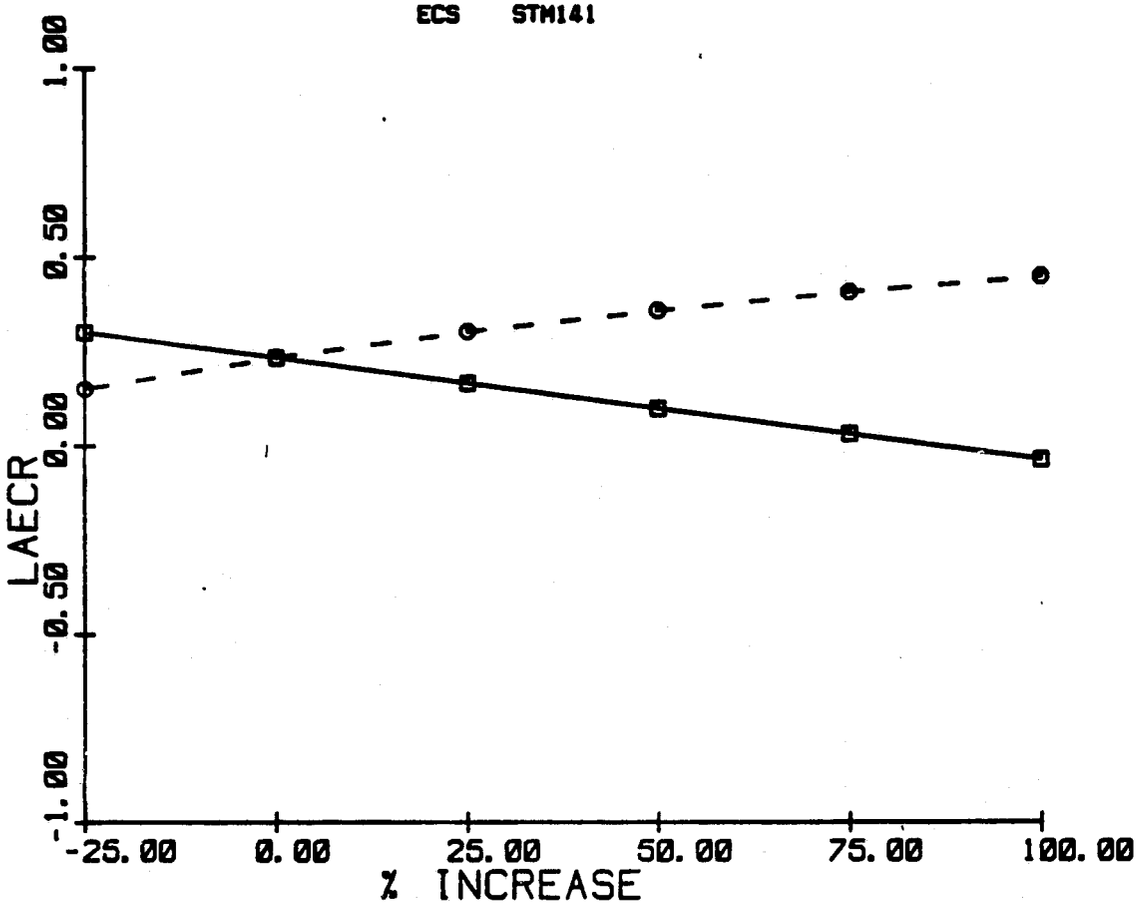
SENSITIVITY STUDY

PROCESS 20214

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		CAPITAL COST- 46.8
PROCESS HEAT- 610	CAPITAL COST- 40.7	LAEC - 16.476
(BTU*10**6)	LAEC - 24.075	ROI - 0
WASTE FUEL- 250	FUEL - COAL-FGD	MW(GEN) - 29
(BTU*10**6)		FUEL - COAL-FGD
POWER/HEAT- 0.102		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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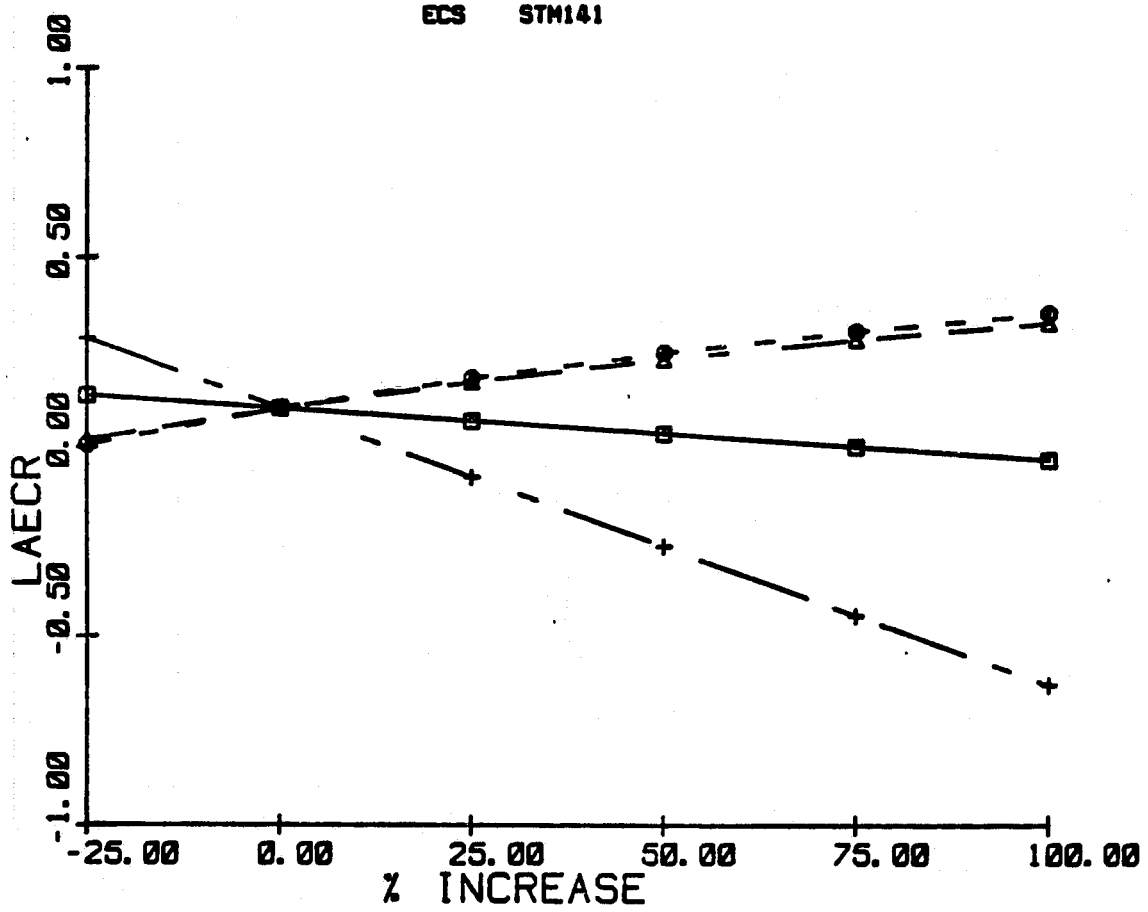
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 26214

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		CAPITAL COST- 24.4
PROCESS HEAT- 610	CAPITAL COST- 48.7	LAEC -21.624
(BTU*10**6)	LAEC -24.075	ROI -0
WASTE FUEL- 259	FUEL -COAL-FGD	MW(GEN) -29
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.162		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

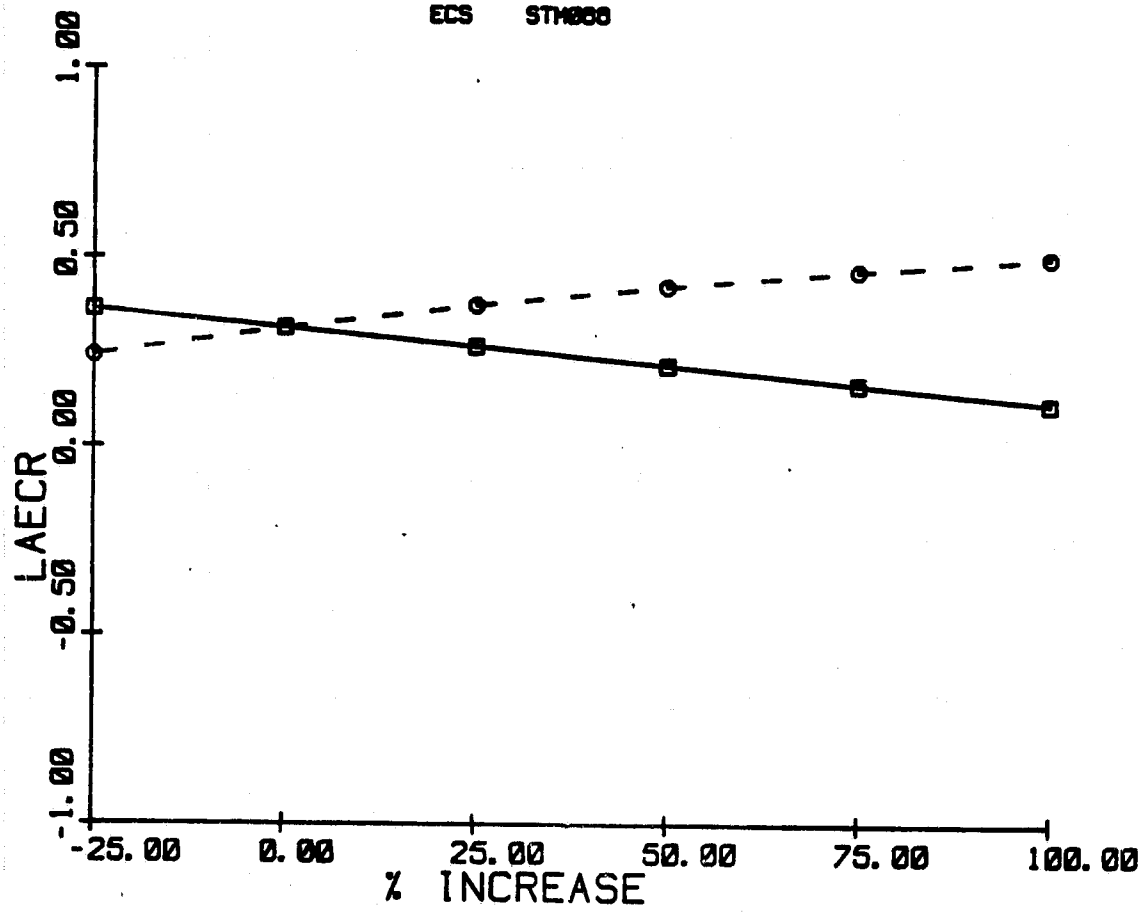
DATE 04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20214

ECS STM008



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		
PROCESS HEAT- 610 (BTU*10**6)	CAPITAL COST- 40.7	CAPITAL COST- 35.6
WASTE FUEL- 250 (BTU*10**6)	LAEC - 24.075	LAEC - 16.536
POWER/HEAT- 0.162	FUEL - COAL-FGD	ROI - 0
		MW(GEN) - 29
		FUEL - COAL-AFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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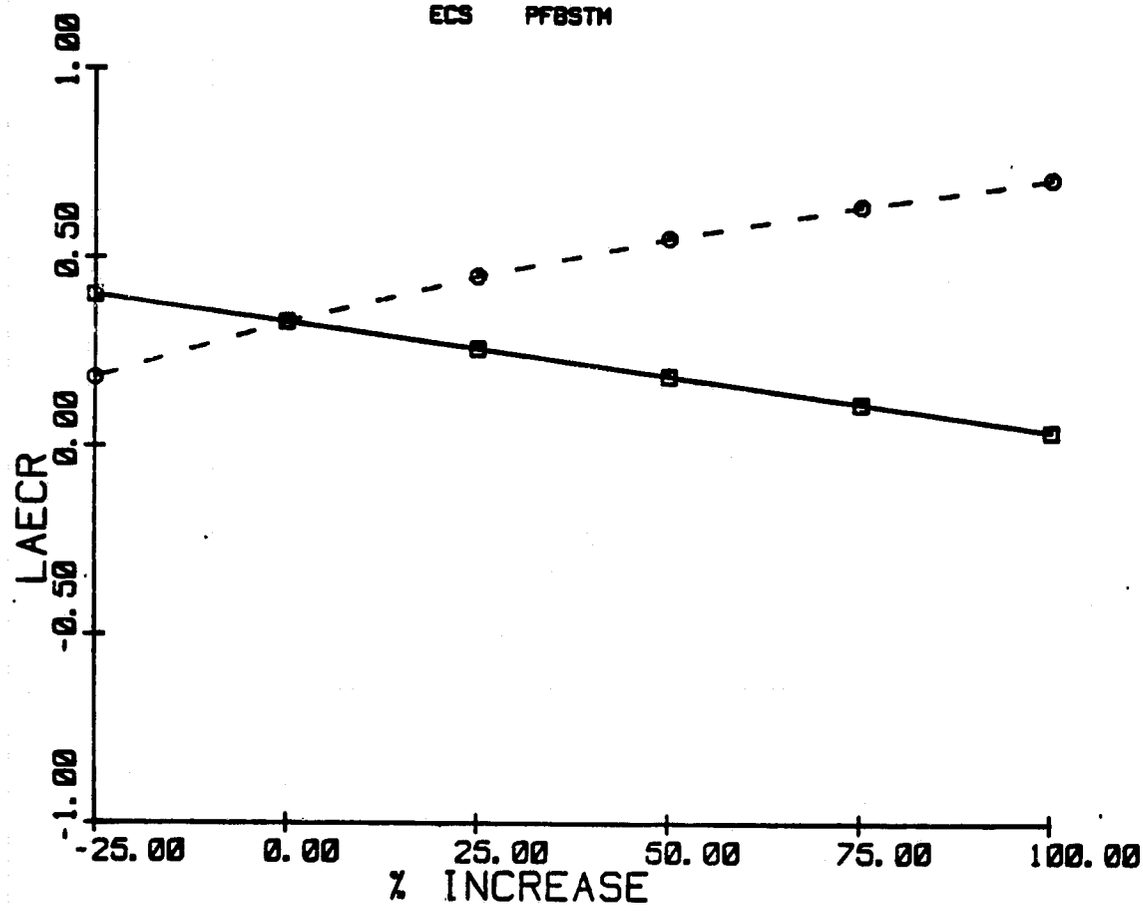
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28214

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		
PROCESS HEAT- 610	CAPITAL COST- 48.7	CAPITAL COST- 52.2
(BTU*10**6)	LAEC - 24.075	LAEC - 16.176
WASTE FUEL- 259	FUEL - COAL-FGD	ROI - 0
(BTU*10**6)		MW(GEN) - 62
POWER/HEAT- 0.162		FUEL - COAL-PFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

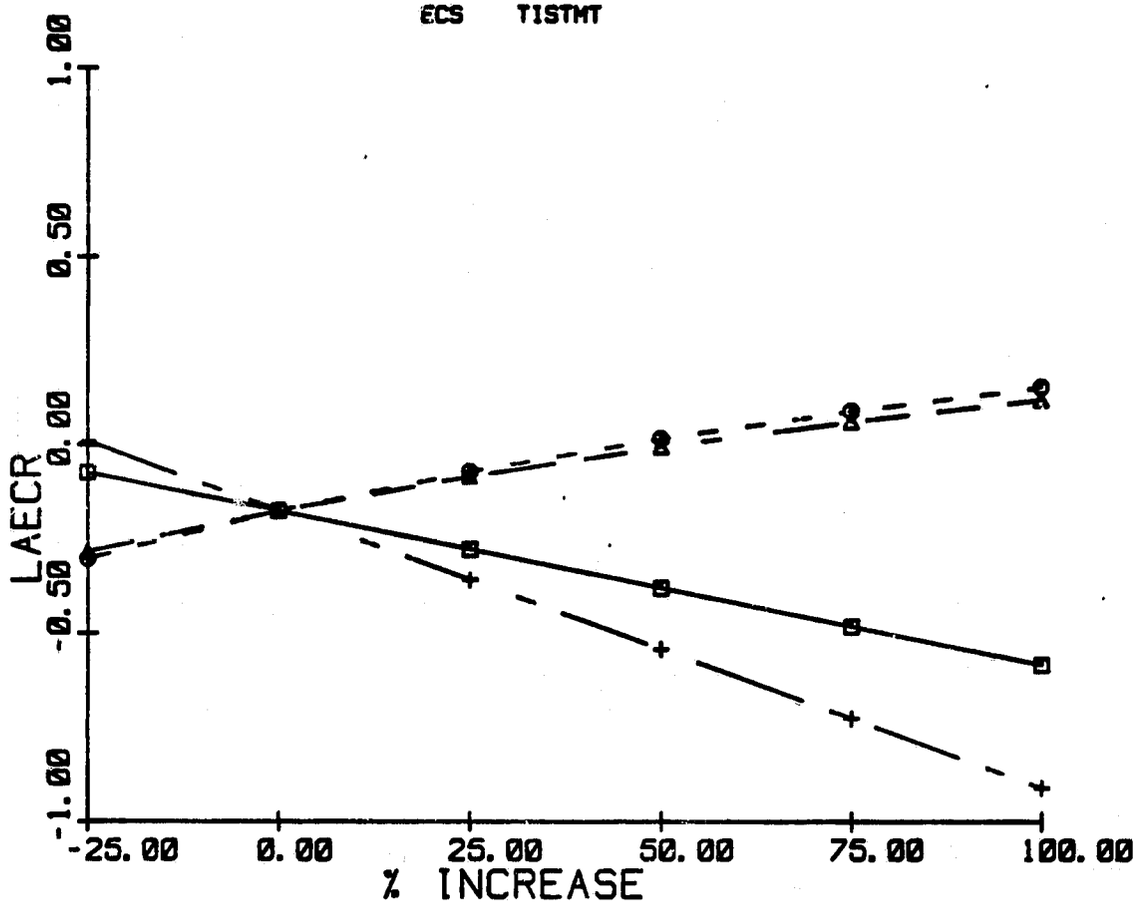
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20214

ECS TISTMT



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 29			CAPITAL COST- 73.7	
PROCESS HEAT- 610	CAPITAL COST- 40.7		LAEC	- 28.306
(BTU*10**6)	LAEC	- 24.075	ROI	- 0
WASTE FUEL- 259	FUEL	- COAL-FGD	MW(GEN)	- 29
(BTU*10**6)			FUEL	- RESIDUAL
POWER/HEAT- 0.182				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

C-4

GENERAL ELECTRIC COMPANY

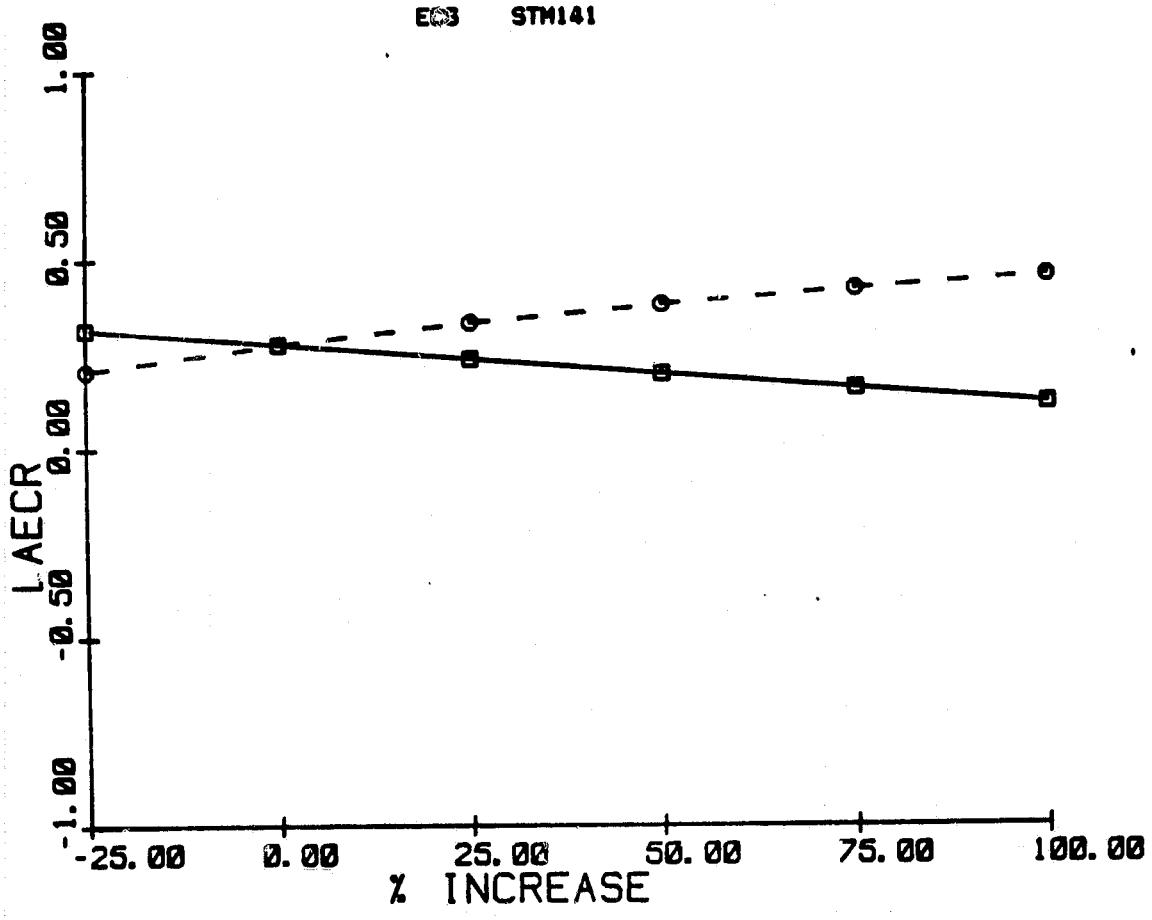
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20210

E@3 STM141



BASE CASE

PROCESS

MW- 20

PROCESS HEAT- 307
(BTU*10**6)

WASTE FUEL- 0
(BTU*10**6)

POWER/HEAT- 0.222

NO COGENERATION

CAPITAL COST- 20.8

LAEC - 10.426

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 19.5

LAEC - 11.912

ROI - 0

MW(GEN) - 10

FUEL - COAL-AFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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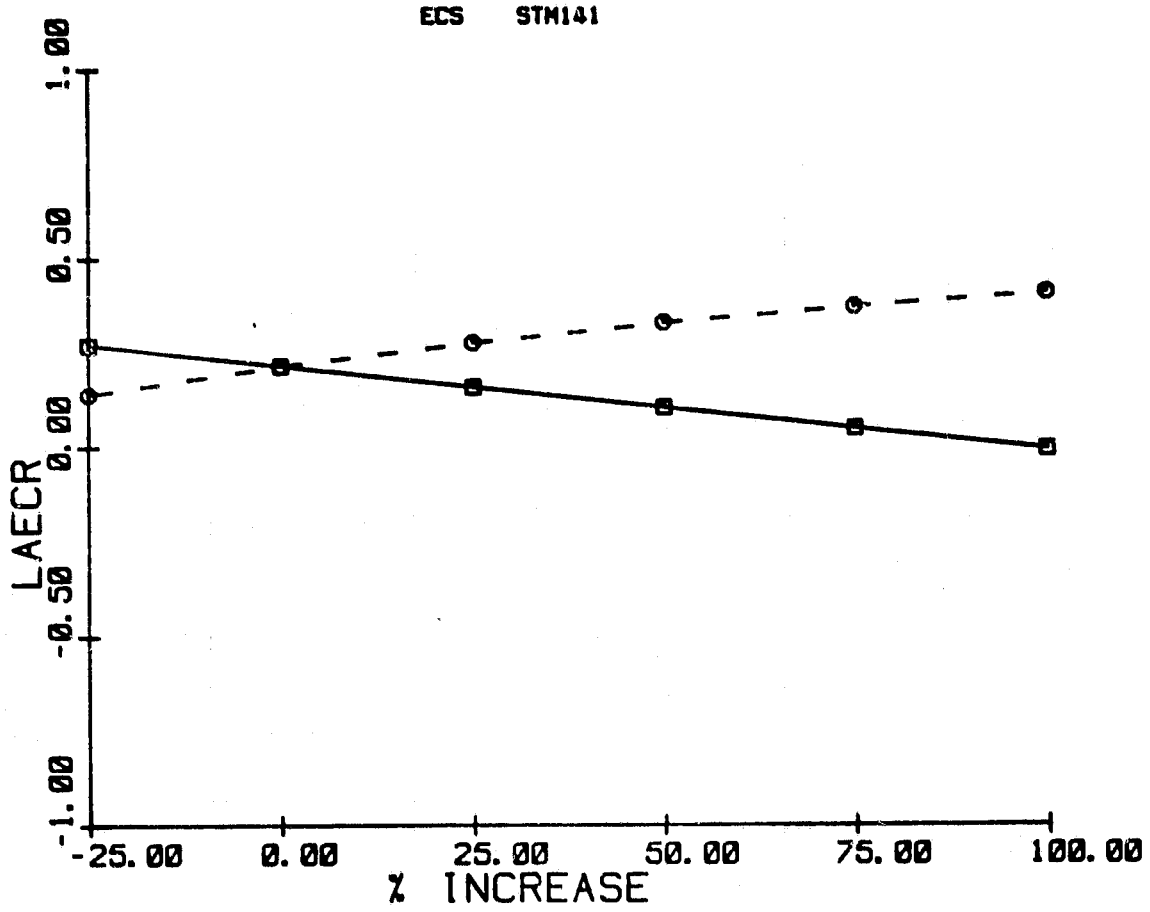
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20210

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 20		CAPITAL COST- 27.1
PROCESS HEAT- 307	CAPITAL COST- 20.8	LAEC - 12.094
(BTU*10**6)	LAEC - 10.426	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 18
(BTU*10**6)		FUEL - COAL-FGD
POWER/HEAT- 0.222		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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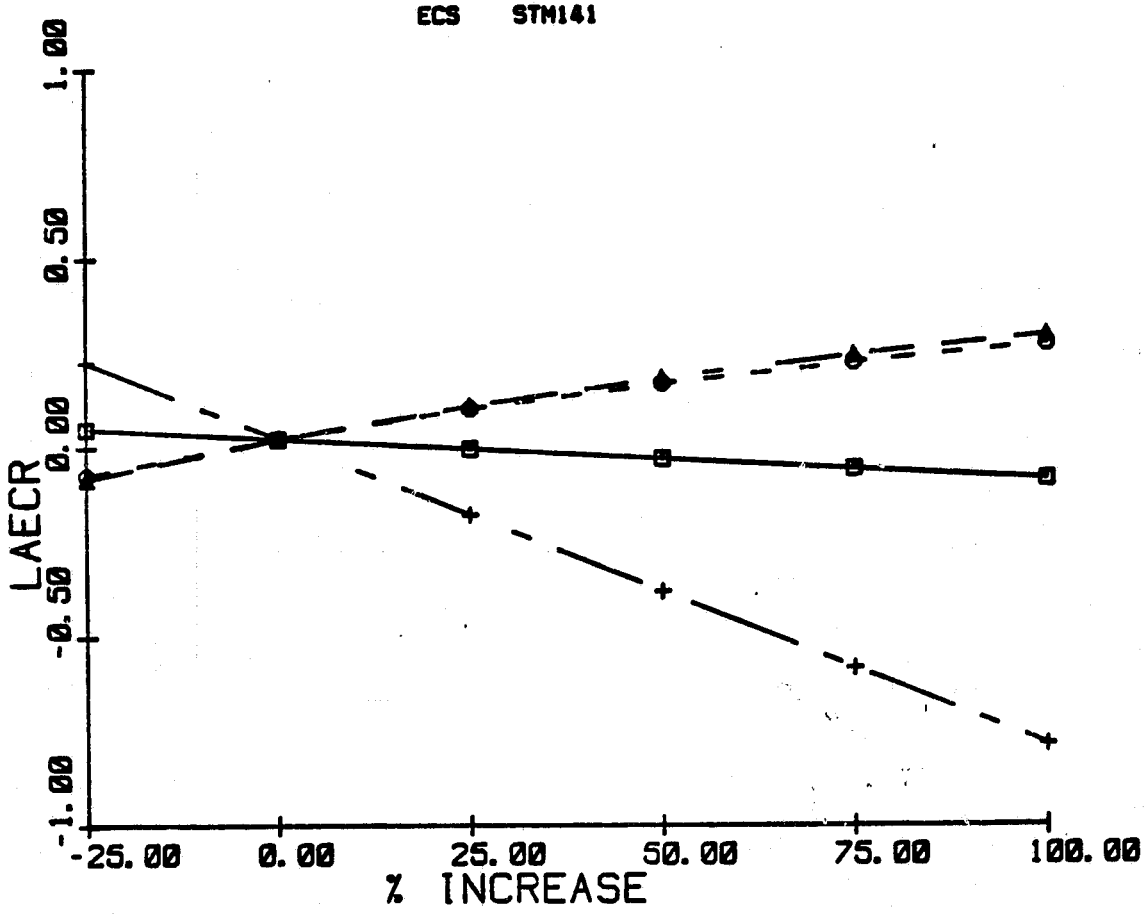
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 26216

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 20		CAPITAL COST- 13.1
PROCESS HEAT- 307	CAPITAL COST- 20.8	LAEC -16.066
(BTU*10**6)	LAEC -16.426	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -16
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.222		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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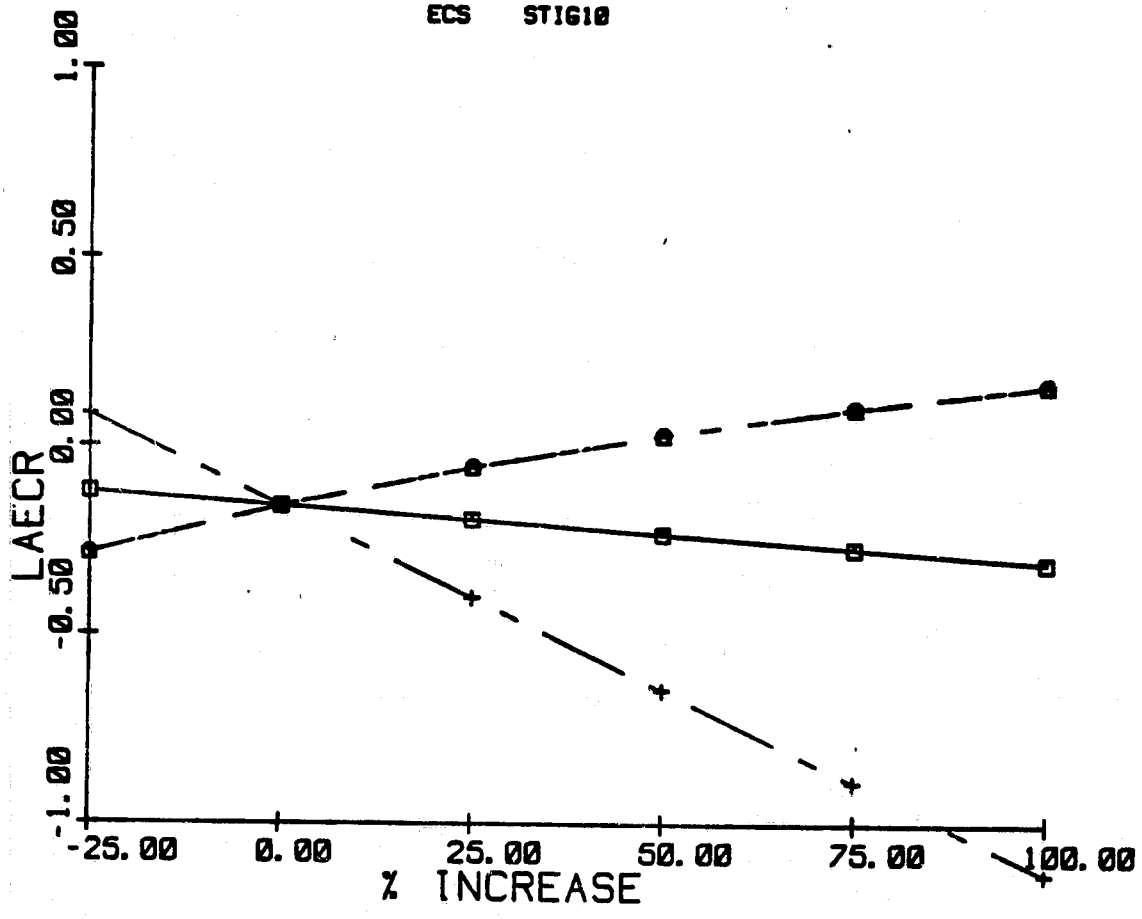
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20210

ECS STIG10



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 20		
PROCESS HEAT- 307	CAPITAL COST- 20.8	CAPITAL COST- 16.4
(BTU*10**6)	LAEC - 16.426	LAEC - 19.049
WASTE FUEL- 0	FUEL - COAL-FGD	ROI - 0
(BTU*10**6)		MW(GEN) - 20
POWER/HEAT- 0.222		FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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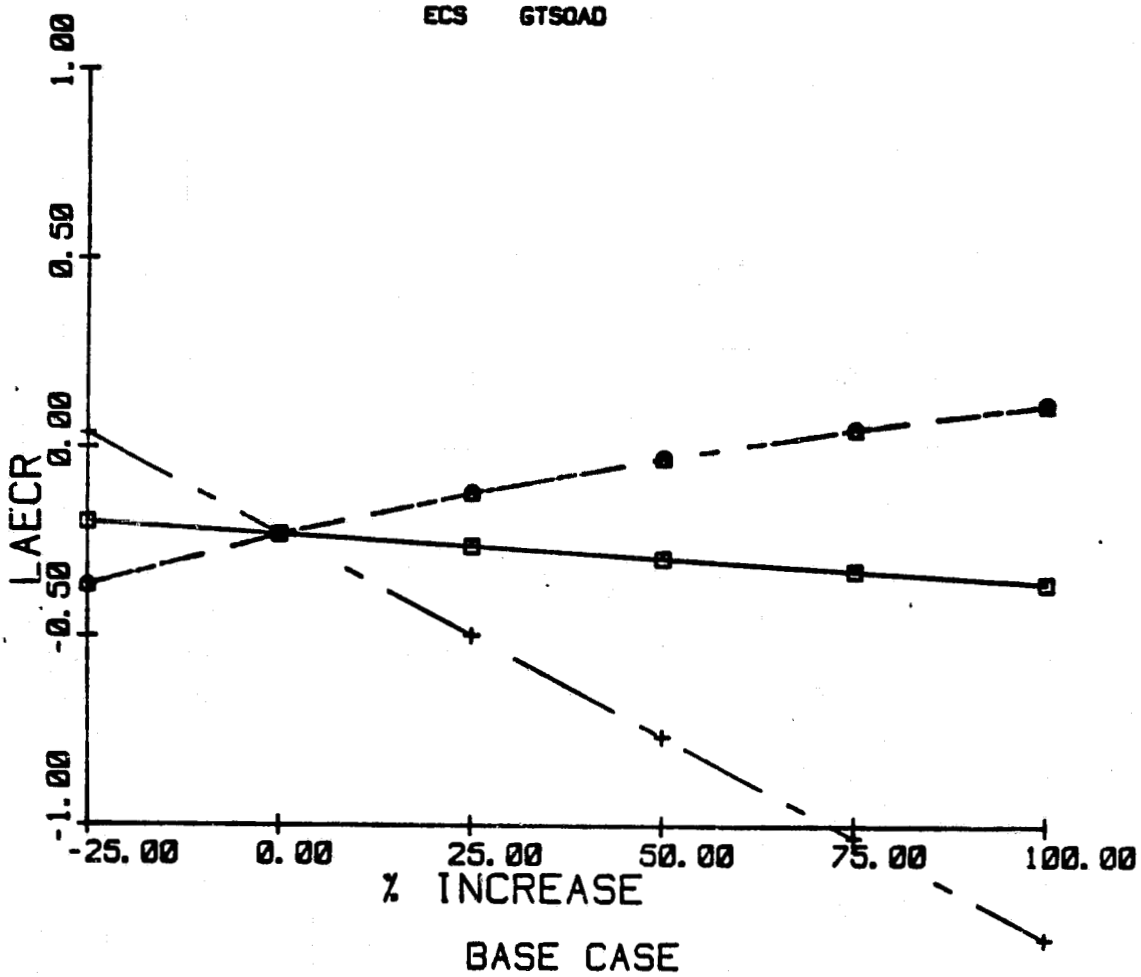
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20210

ECS GTSOAD



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 20		CAPITAL COST- 16.1
PROCESS HEAT- 307	CAPITAL COST- 20.8	LAEC -20.215
(BTU*10**6)	LAEC -16.426	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -20
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 0.222		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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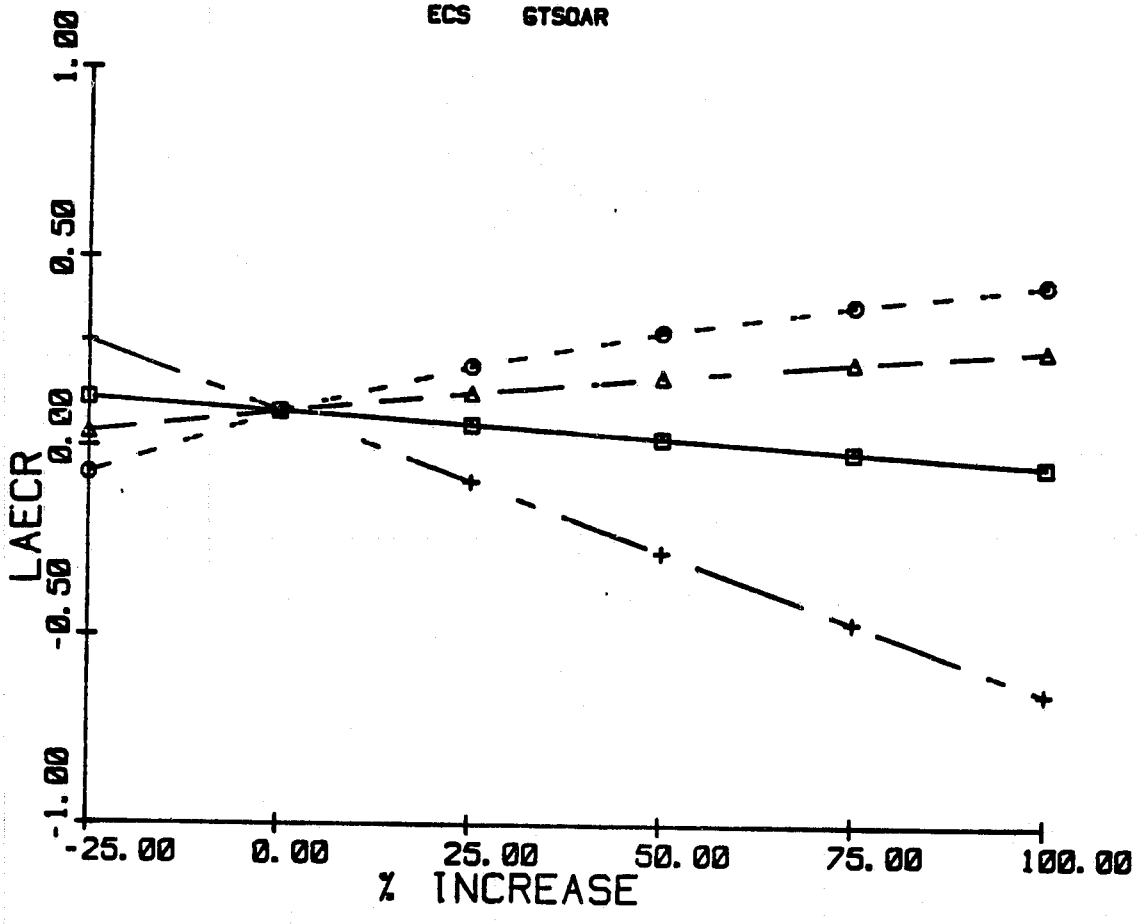
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28217

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 17.5
PROCESS HEAT- 183	CAPITAL COST- 14.8	LAEC -14.987
(BTU*10**6)	LAEC -16.517	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -31
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.584		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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PROCESS 20217

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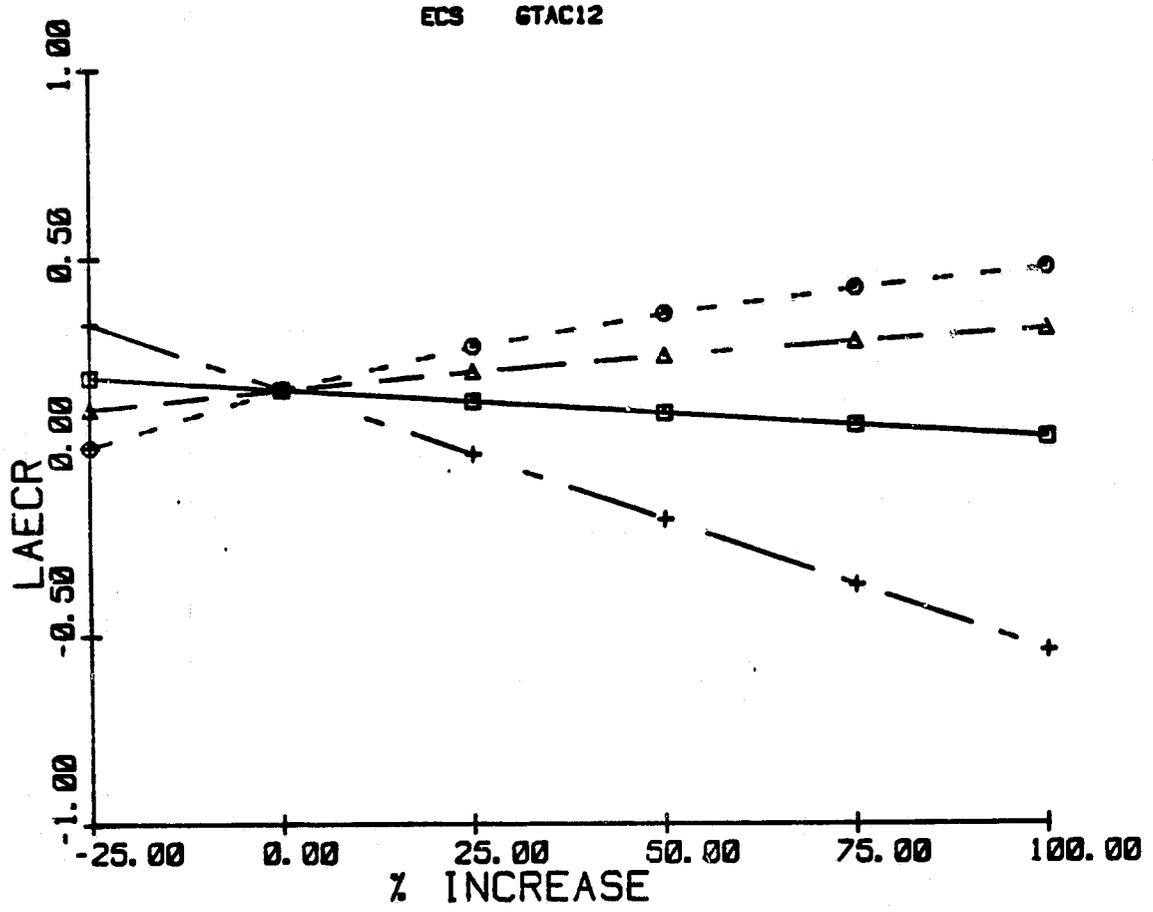

BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 16.1
PROCESS HEAT- 183	CAPITAL COST- 14.8	LAEC -14.007
(BTU*10**6)	LAEC -16.517	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -31
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.584		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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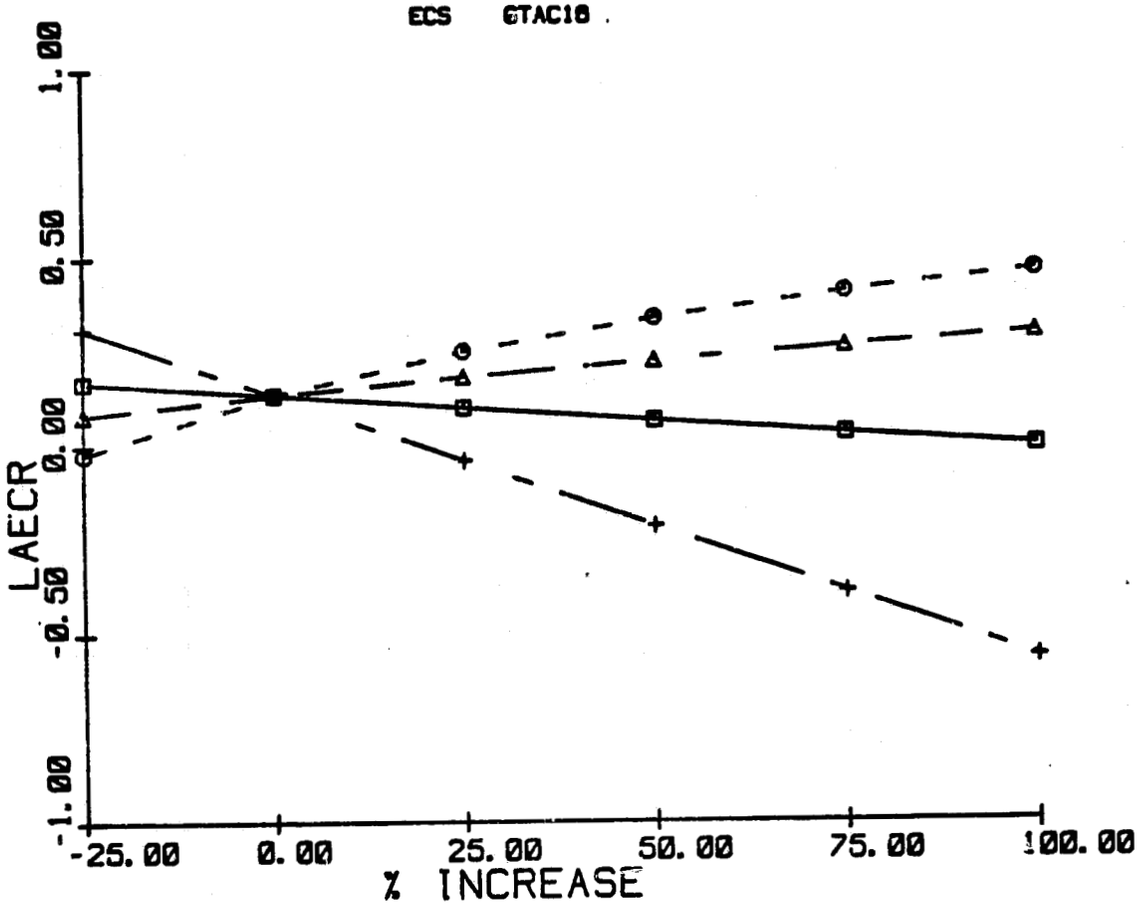
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 26217

ECS GTAC18 .



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 17.4
PROCESS HEAT- 183	CAPITAL COST- 14.8	LAEC - 14.302
(BTU*10**6)	LAEC - 16.517	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 31
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.584		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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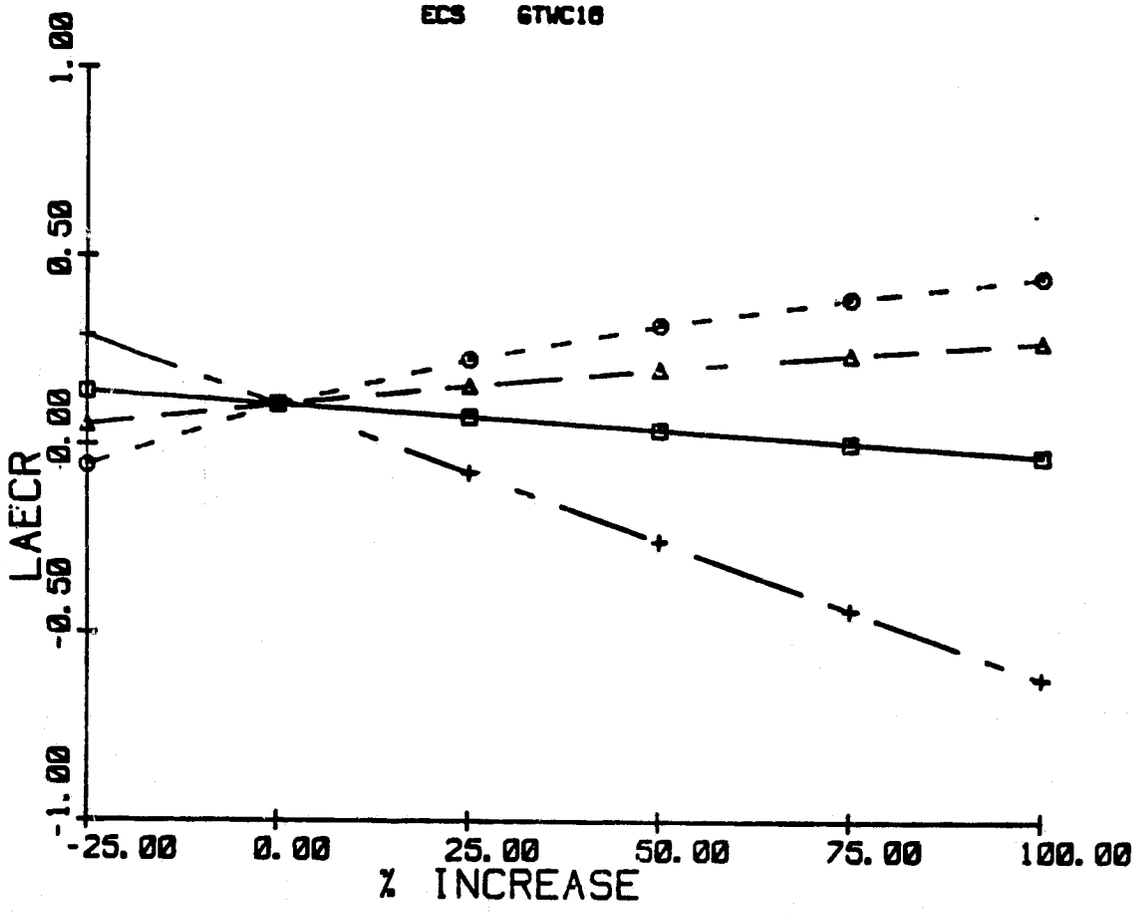
PROCESS 20217

ECS GTWC10



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 17.2
PROCESS HEAT- 163	CAPITAL COST- 14.8	LAEC -14.761
(BTU*10**6)	LAEC -16.517	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -31
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.584		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

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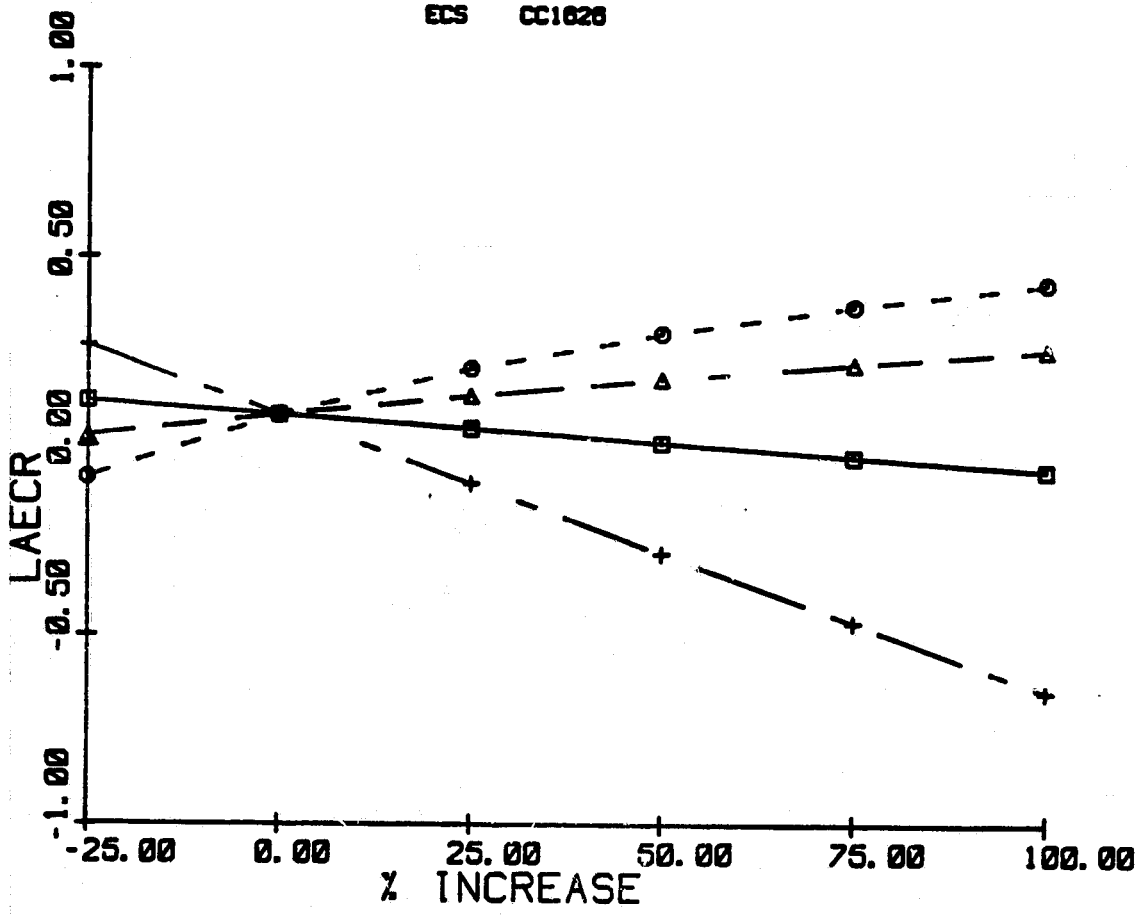
SENSITIVITY STUDY

PROCESS 26217

ECS CC1626



BASE CASE

PROCESS

MW- 31

PROCESS HEAT- 163
(BTU*10**6)

WASTE FUEL- 0
(BTU*10**6)

POWER/HEAT- 0.584

NO COGENERATION

CAPITAL COST- 14.6

LAEC - 18.517

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 18.1

LAEC - 15.150

ROI - 0

MW(GEN) - 31

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

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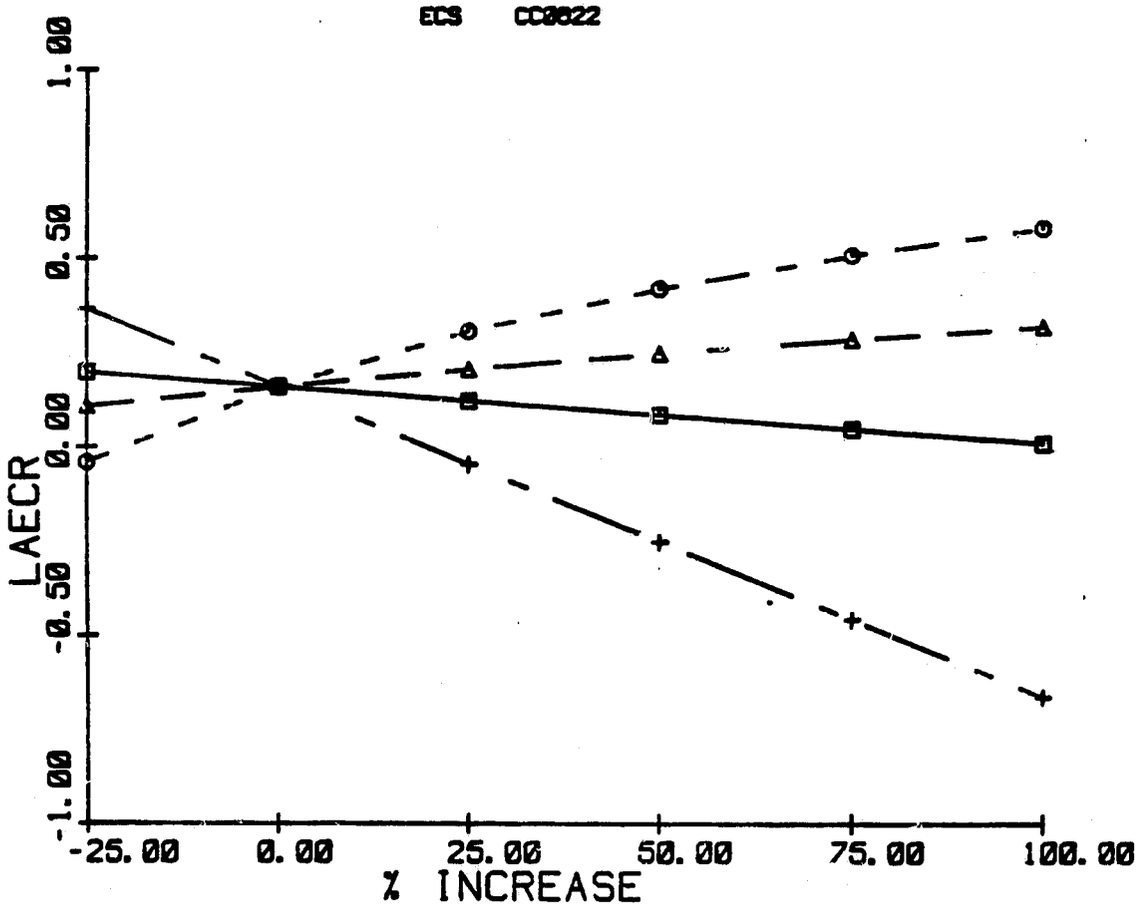
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 26217

ECS CC0622



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 16.7
PROCESS HEAT- 183	CAPITAL COST- 14.8	LAEC -13.894
(BTU*10**6)	LAEC -16.517	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -45
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.584		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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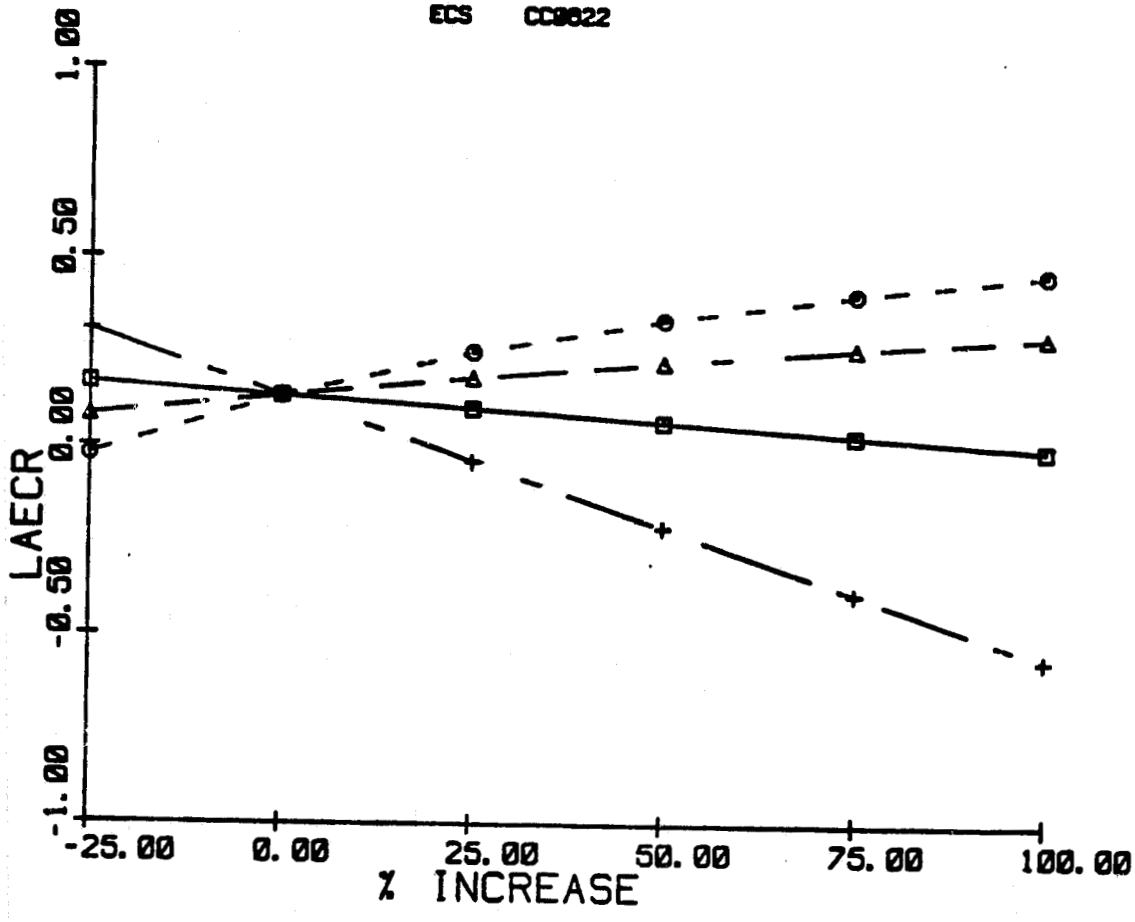
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS CC0022



BASE CASE

PROCESS

MW- 31

PROCESS HEAT- 183

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.584

NO COGENERATION

CAPITAL COST- 14.8

LAEC - 16.517

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 16.9

LAEC - 14.328

ROI - 0

MW(GEN) - 31

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

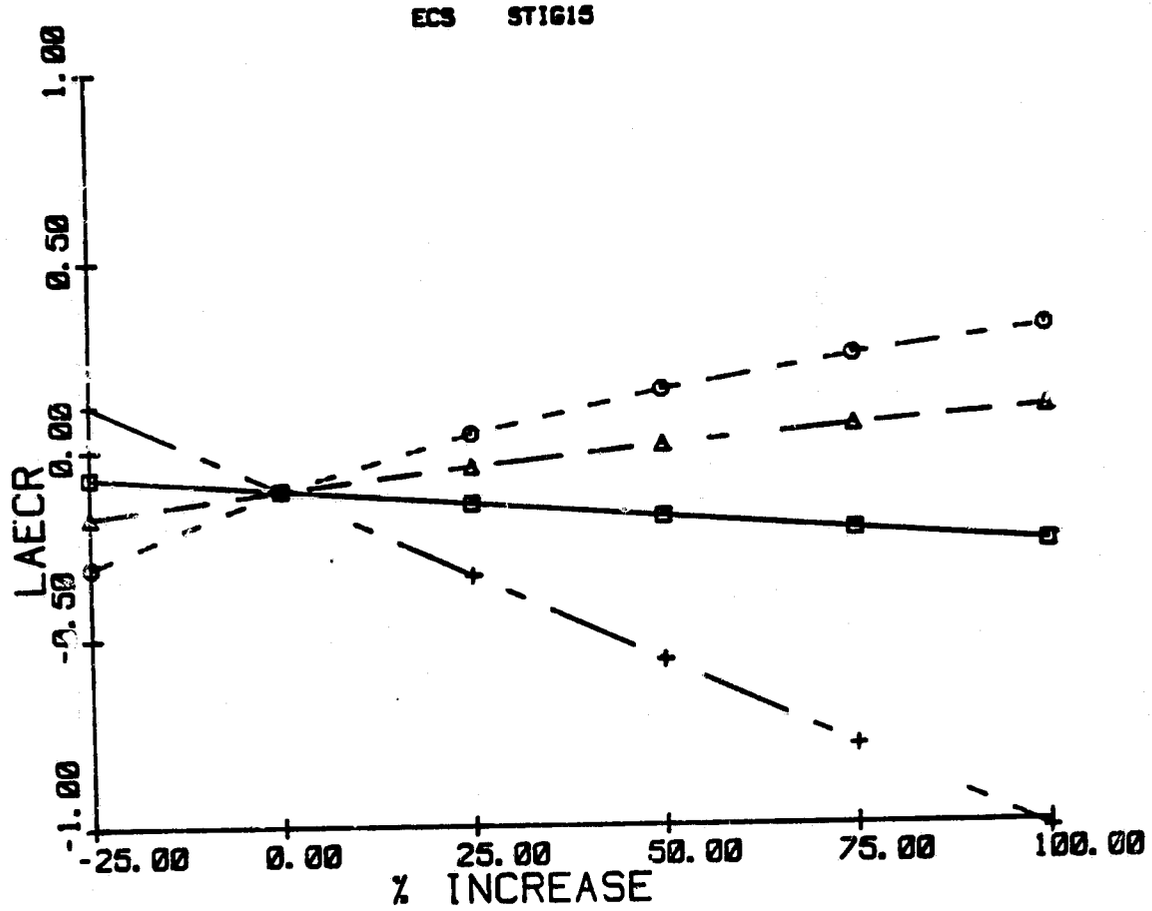
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS STIG15



BASE CASE

NO COGENERATION

CAPITAL COST- 14.8

LAEC - 16.517

FUEL - COAL-FGD

PROCESS

MW- 31

PROCESS HEAT- 183

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.584

COGENERATION

CAPITAL COST- 16.8

LAEC - 16.311

ROI - 0

MW(GEN) - 31

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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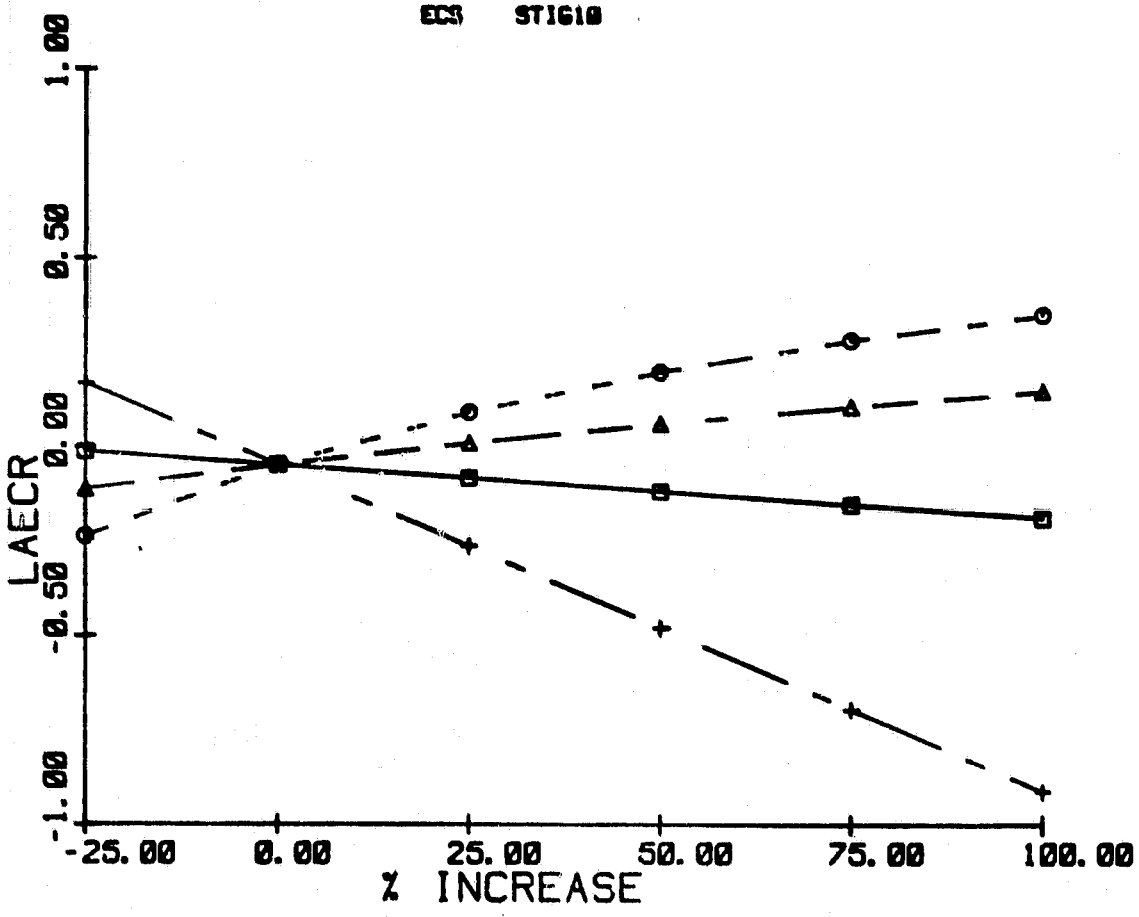
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS STIG10



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 17.7
PROCESS HEAT- 183	CAPITAL COST- 14.6	LAEC -17.305
(BTU*10**6)	LAEC -16.517	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -31
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.504		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

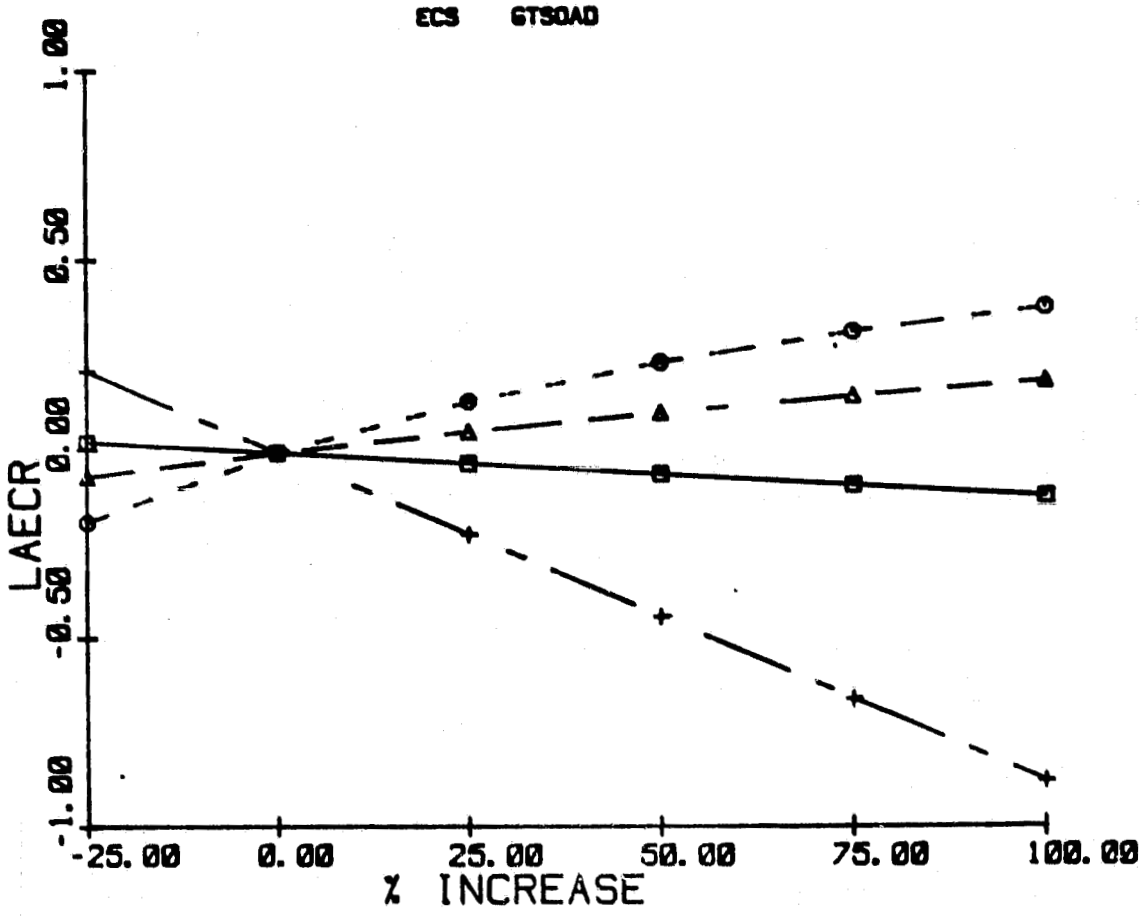
DATE84/10/70

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS 6TSOAD



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 14.7
PROCESS HEAT- 163	CAPITAL COST- 14.6	LAEC - 16.700
(BTU*10**6)	LAEC - 16.517	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 31
(BTU*10**6)		FUEL - DISTILLA
POWER/HEAT- 0.504		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

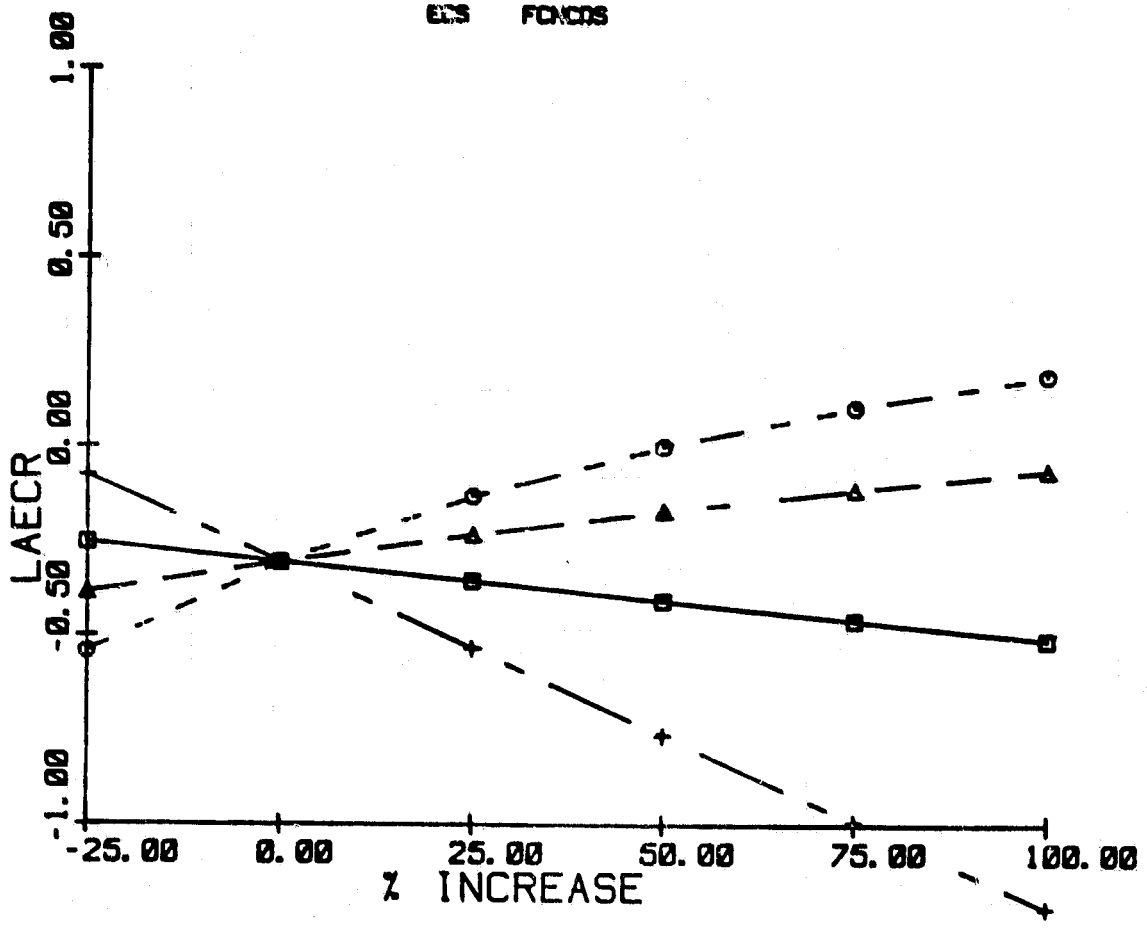
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS FGDCOS



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		
PROCESS HEAT- 183	CAPITAL COST- 14.8	CAPITAL COST- 25.8
(BTU*10**6)	LAEC -16.517	LAEC -21.576
WASTE FUEL- 0	FUEL -COAL-FGD	ROI -8
(BTU*10**6)		MW(GEN) -31
POWER/HEAT- 0.584		FUEL -DISTILLA

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

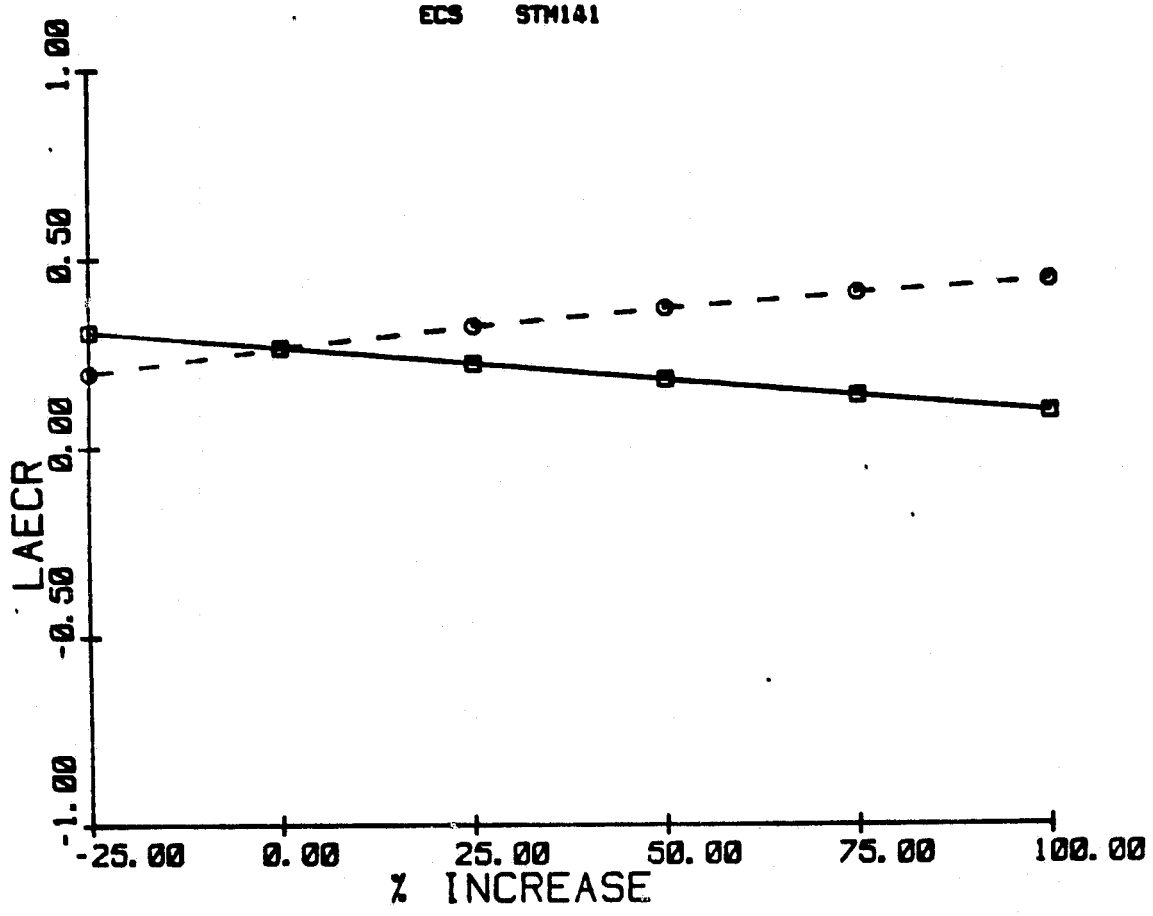
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20210

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 15		CAPITAL COST- 16.8
PROCESS HEAT- 244	CAPITAL COST- 17.9	LAEC -9.504
(BTU*10**6)	LAEC -13.020	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -14
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.210		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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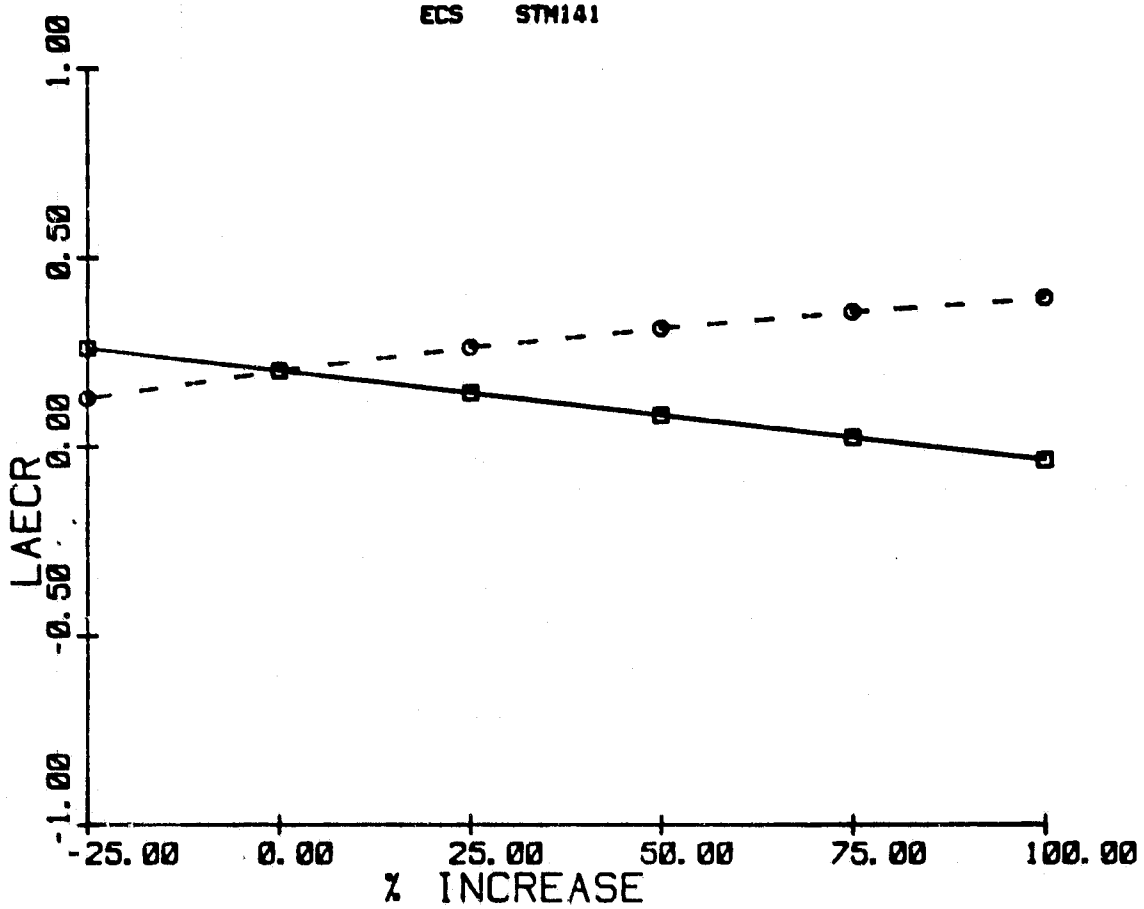
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28218

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 15		CAPITAL COST- 22.9
PROCESS HEAT- 244	CAPITAL COST- 17.9	LAEC -10.385
(BTU*10**6)	LAEC -13.020	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -13
(BTU*10**6)		FUEL -COAL-FGD
POWER/HEAT- 0.210		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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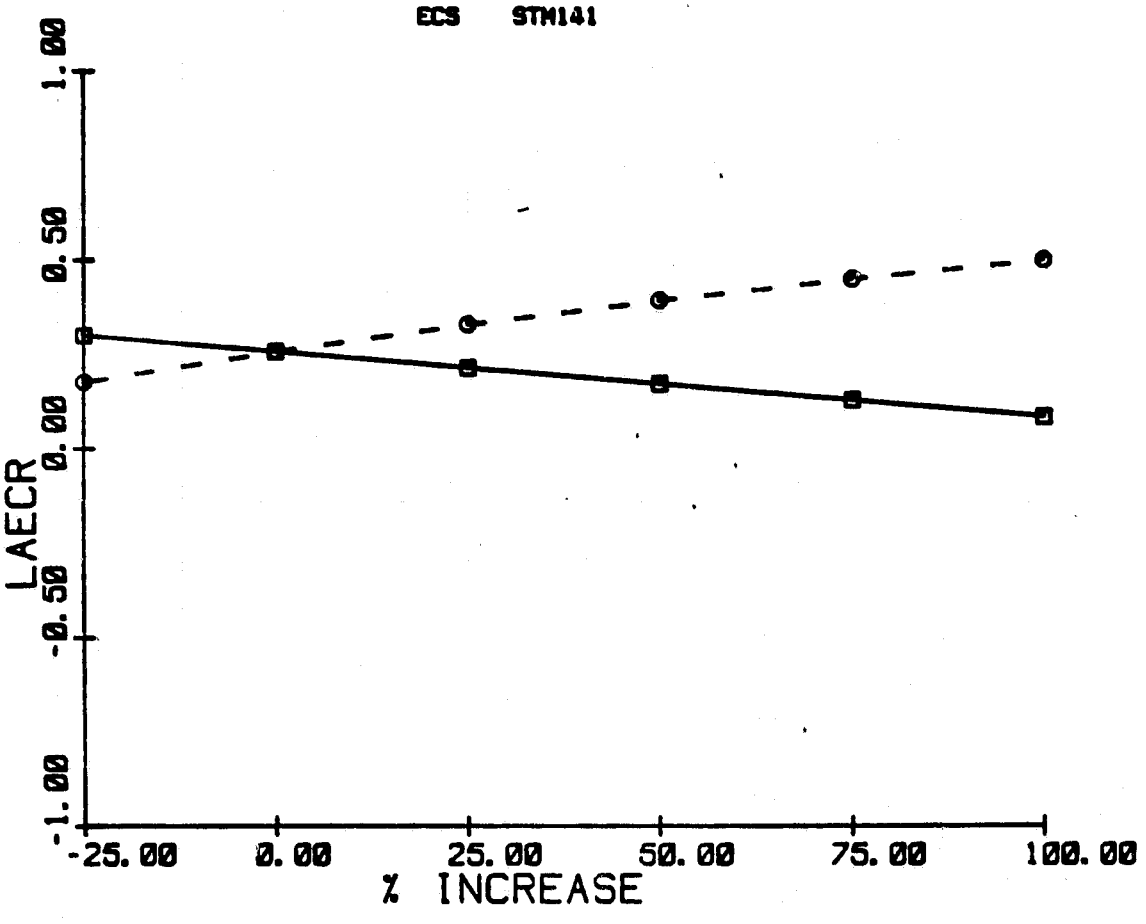
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20001

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 33		CAPITAL COST- 58.1
PROCESS HEAT- 1100	CAPITAL COST- 66.1	LAEC -33.192
(BTU*10**6)	LAEC -33.581	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -58
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.101		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

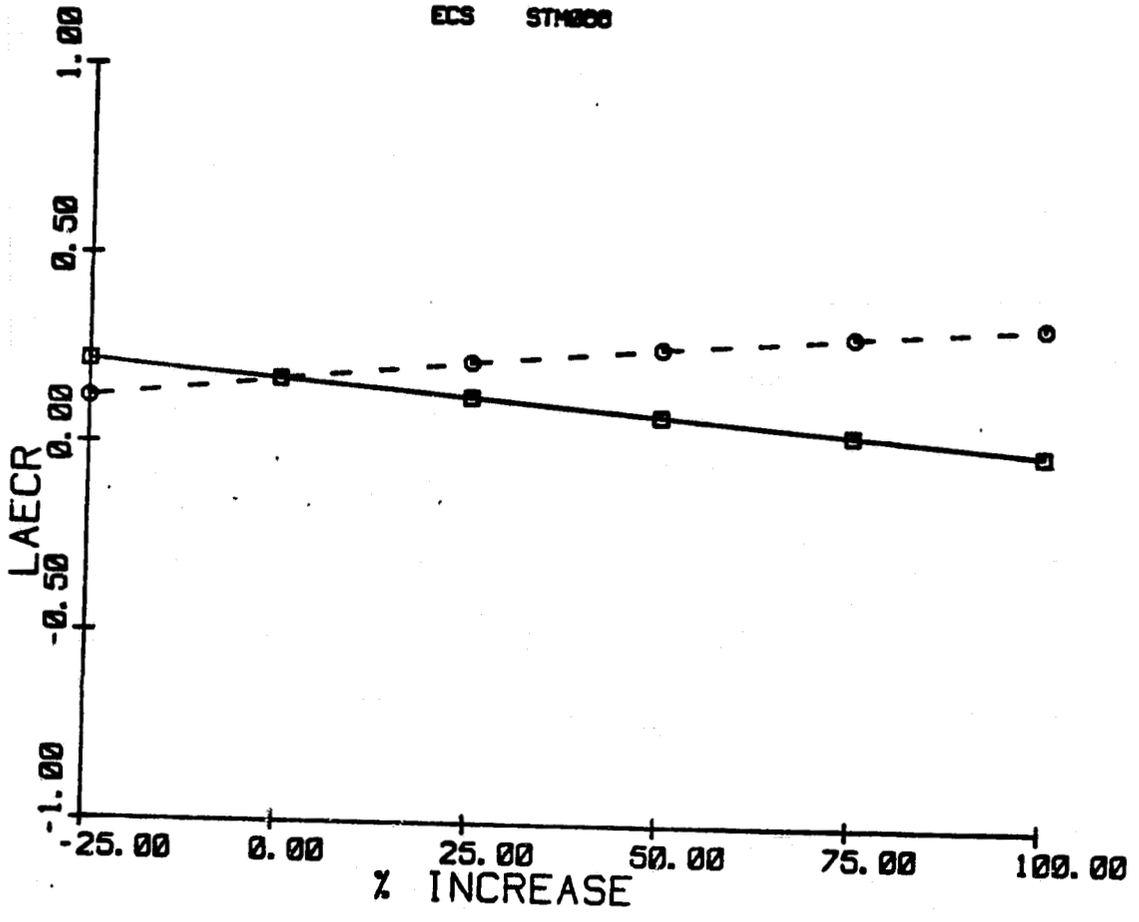
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20001

ECS STM300



BASE CASE

NO COGENERATION

CAPITAL COST- 60.1

LAEC - 44.581

FUEL - COAL-FGD

PROCESS

MW- 33

PROCESS HEAT- 1100

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.101

COGENERATION

CAPITAL COST- 58.9

LAEC - 36.848

ROI - 0

MW(GEN) - 33

FUEL - COAL-AFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

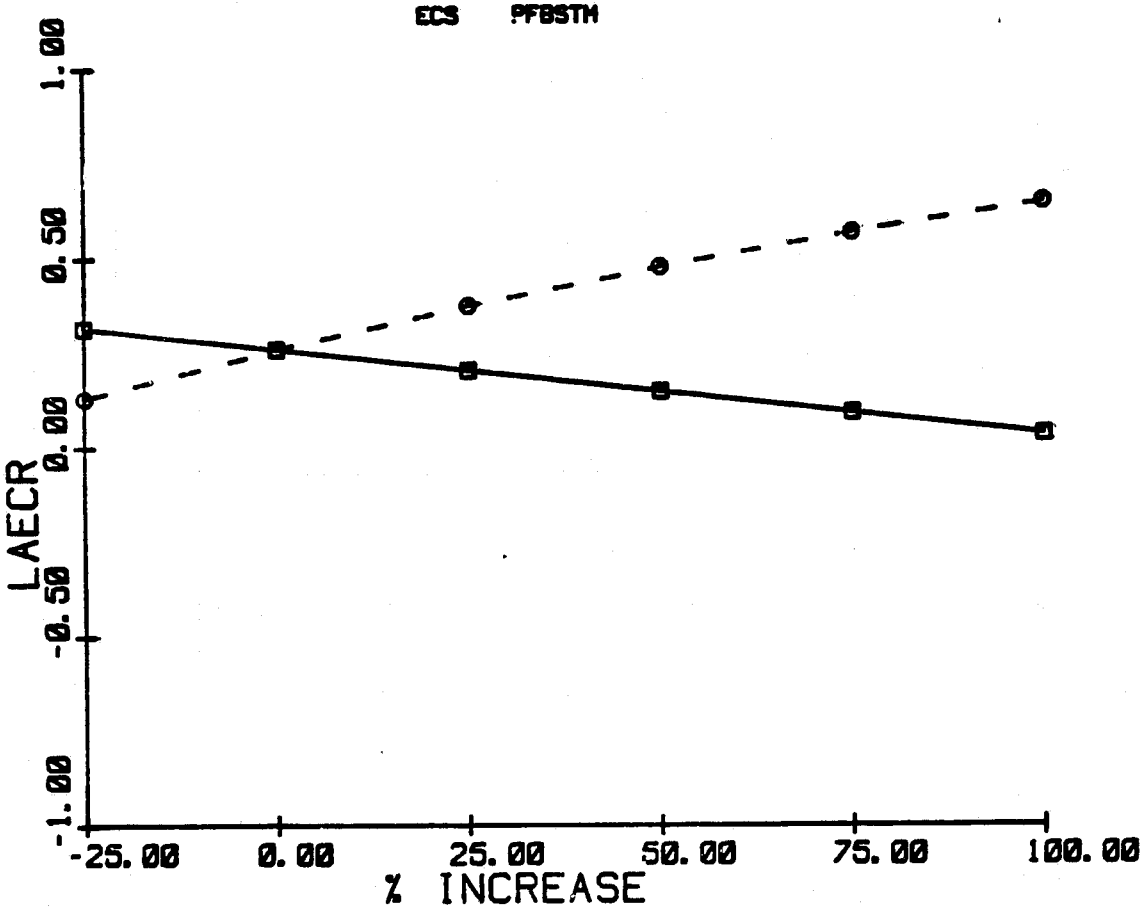
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20001

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 33		CAPITAL COST- 75.2
PROCESS HEAT- 1100	CAPITAL COST- 60.1	LAEC -33.041
(BTU*10**6)	LAEC -44.581	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -99
(BTU*10**6)		FUEL -COAL-PFB
POWER/HEAT- 0.101		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

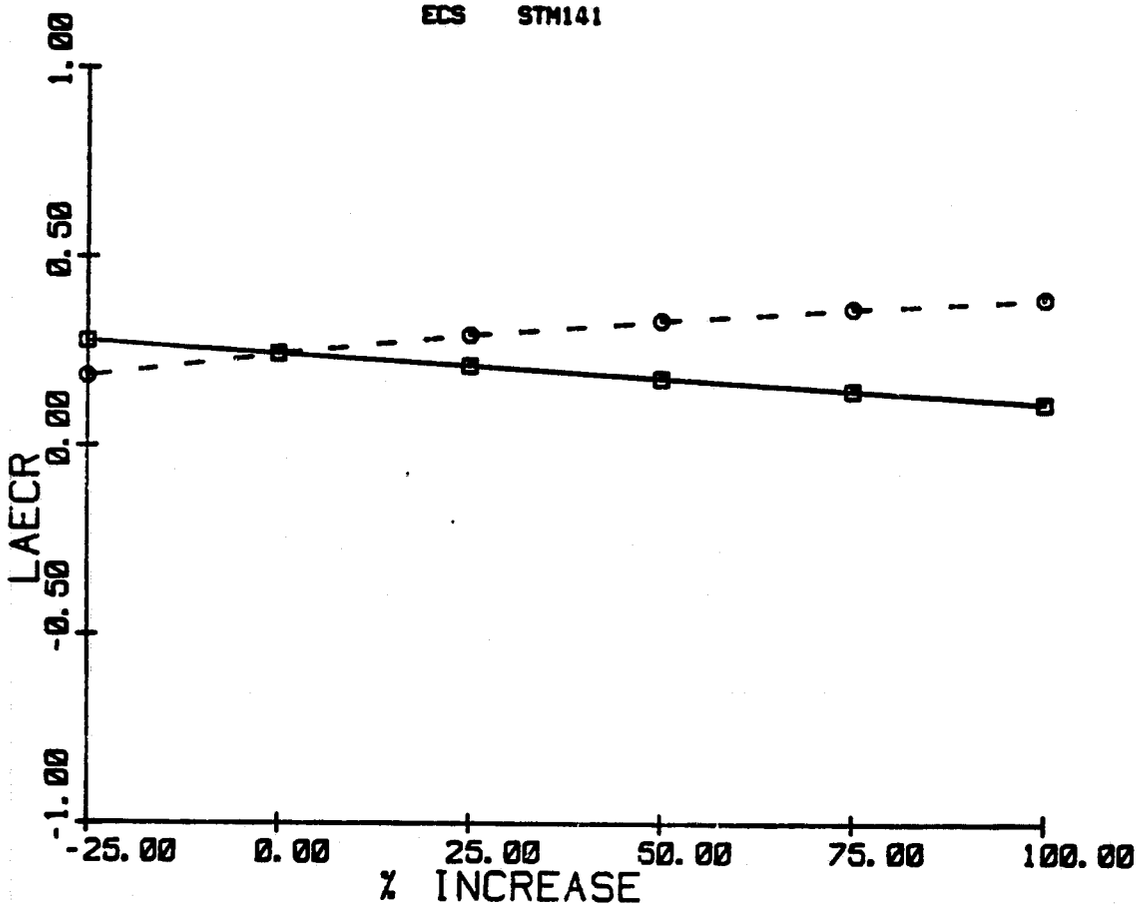
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20002

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 77		
PROCESS HEAT- 1054	CAPITAL COST- 58.4	CAPITAL COST- 58.6
(BTU*10**6)	LAEC - 58.363	LAEC - 44.126
WASTE FUEL- 0	FUEL - COAL-FGD	ROI - 0
(BTU*10**6)		MW(GEN) - 56
POWER/HEAT- 0.250		FUEL - COAL-AFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

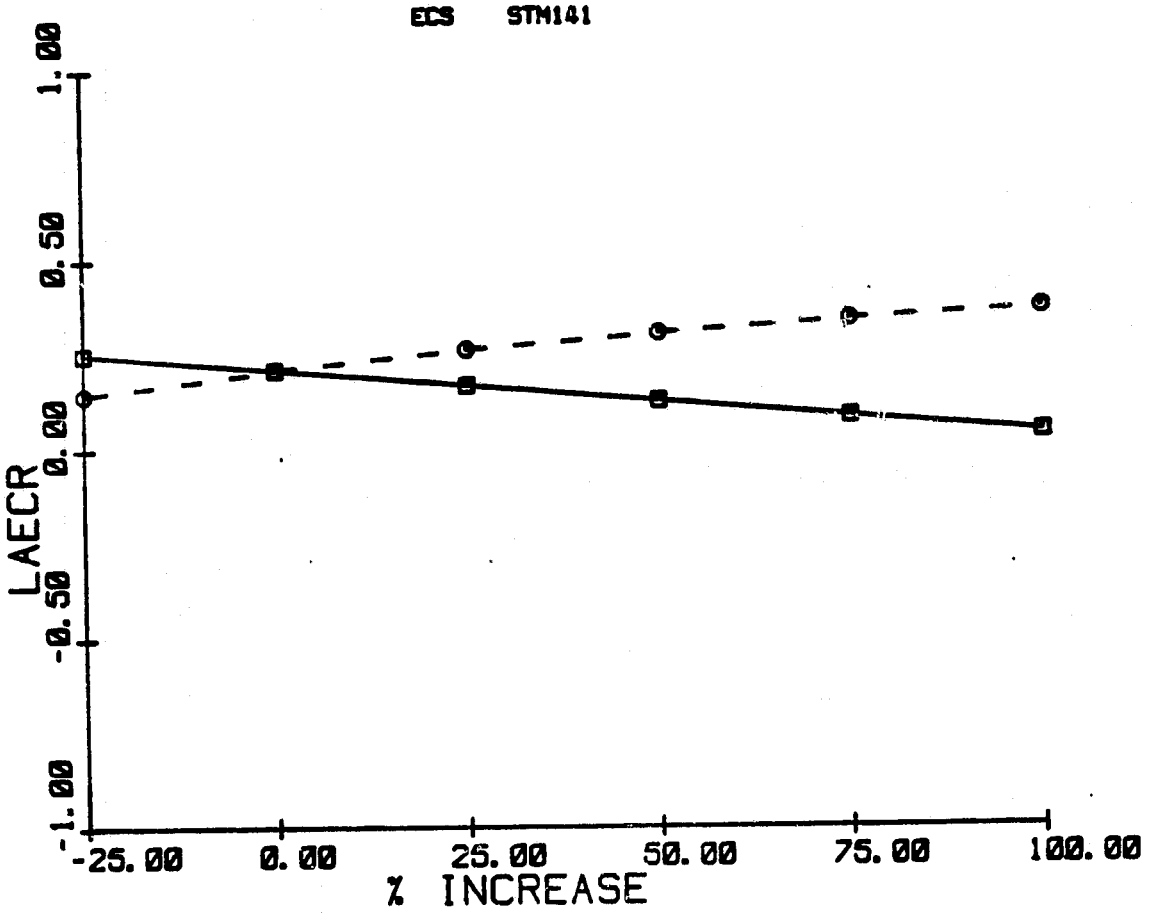
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20002

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 77		CAPITAL COST- 73.8
PROCESS HEAT- 1054	CAPITAL COST- 58.1	LAEC -46.112
(BTU*10**6)	LAEC -58.383	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -58
(BTU*10**6)		FUEL -COAL-FGD
POWER/HEAT- 0.250		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

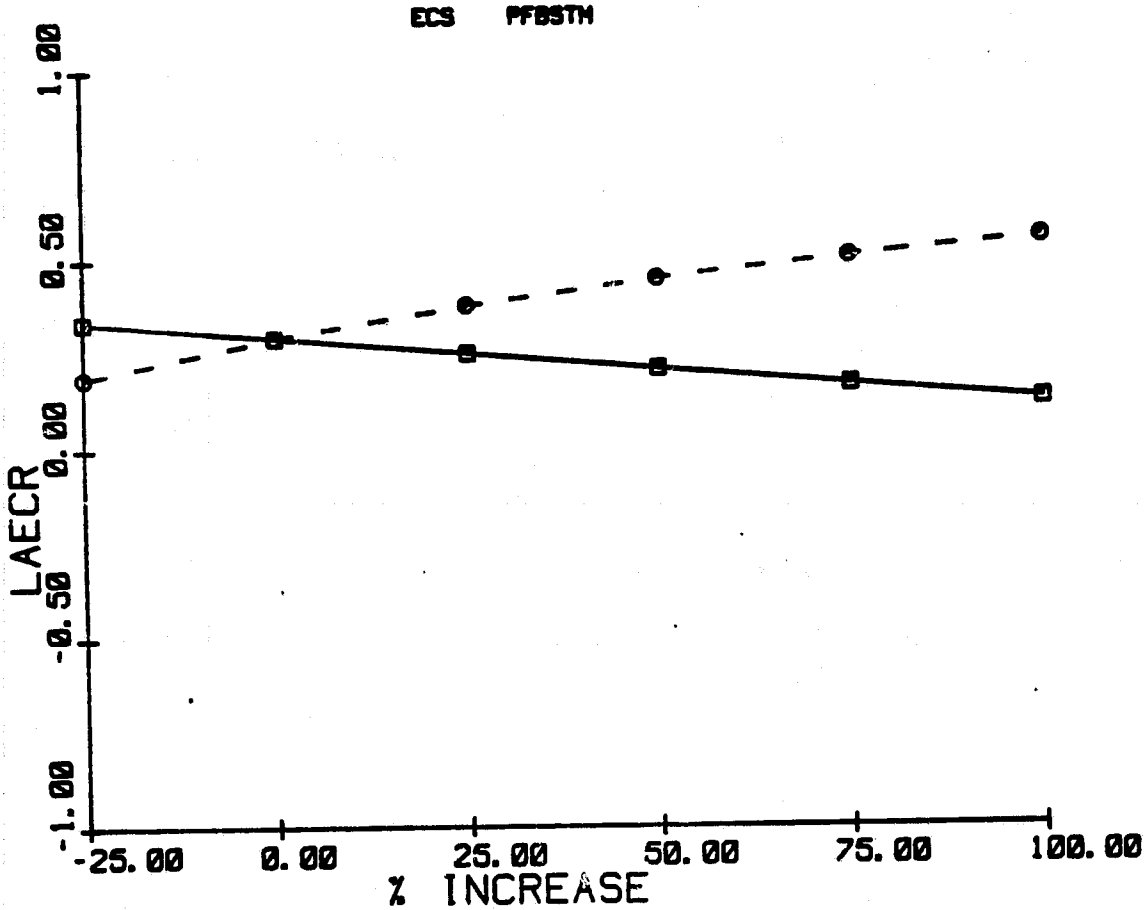
DATE 04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20002

ECS PFBSTM



BASE CASE

PROCESS

MW- 77

PROCESS HEAT- 1054
(BTU*10**6)

WASTE FUEL- 0
(BTU*10**6)

POWER/HEAT- 0.250

NO COGENERATION

CAPITAL COST- 58.1

LAEC - 58.383

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 73.0

LAEC - 41.137

ROI - 0

MW(GEN) - 95

FUEL - COAL-PFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

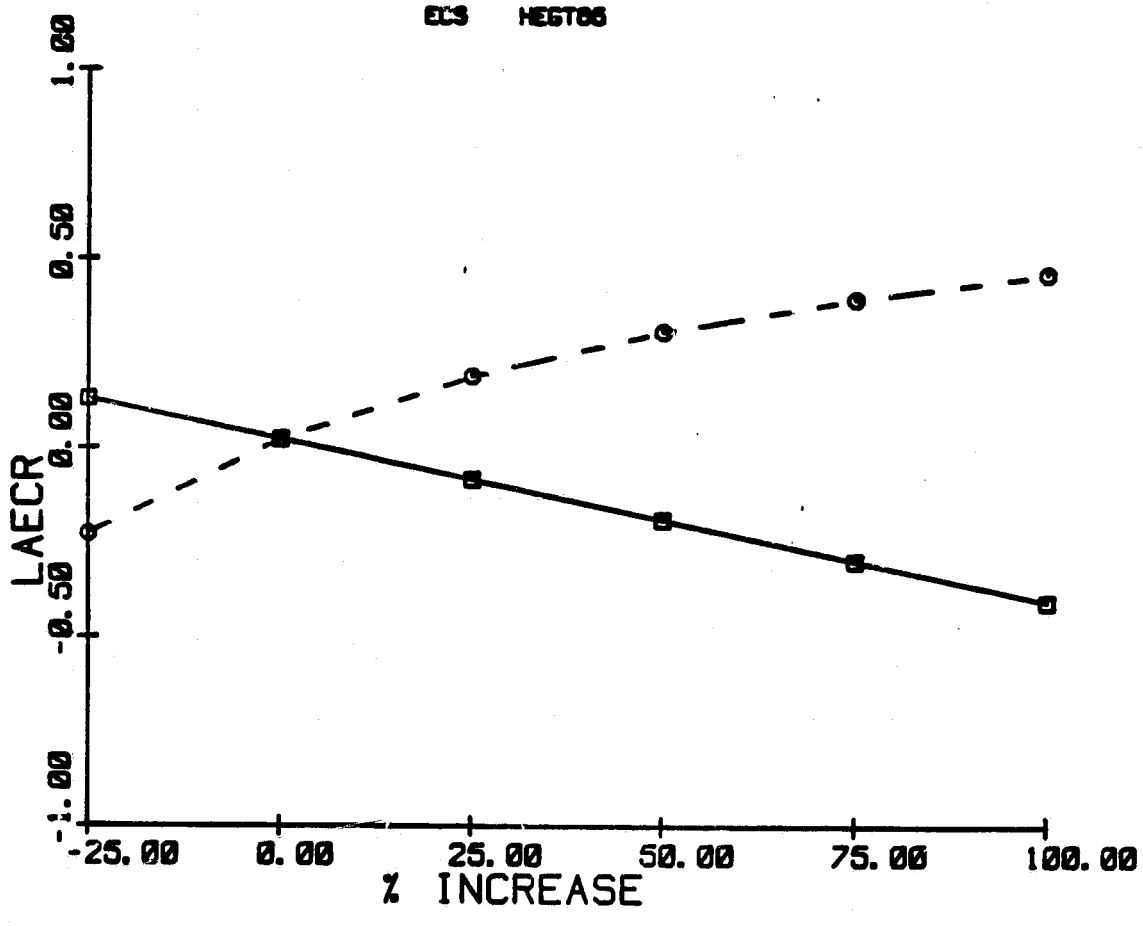
DATE 04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28121

ECS HEGT66



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 154.6
PROCESS HEAT- 265	CAPITAL COST- 10.9	LAEC -47.001
(BTU*10**6)	LAEC -48.101	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -120
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

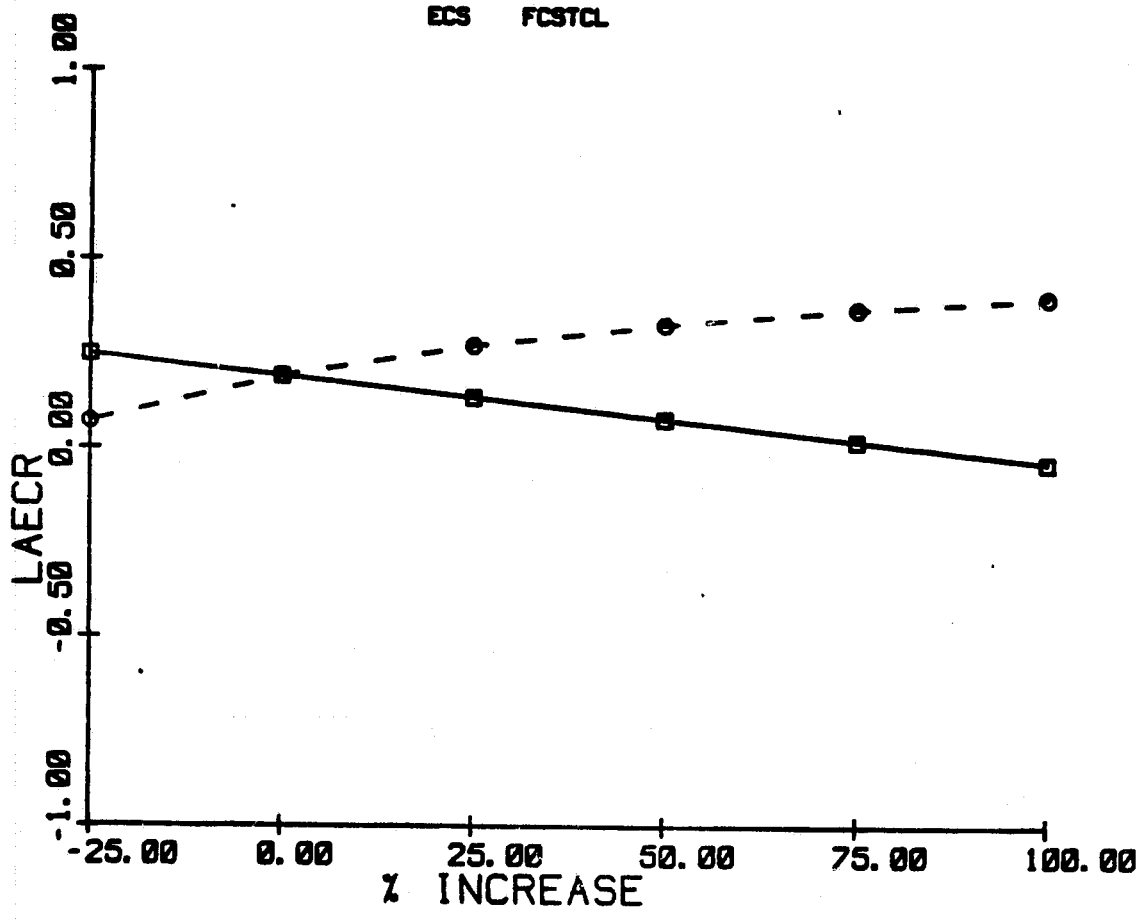
DATE04/18/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS FCSTCL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 60.2
PROCESS HEAT- 265	CAPITAL COST- 16.9	LAEC -36.945
(BTU*10**6)	LAEC -48.101	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -70
(BTU*10**6)		FUEL -COAL
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

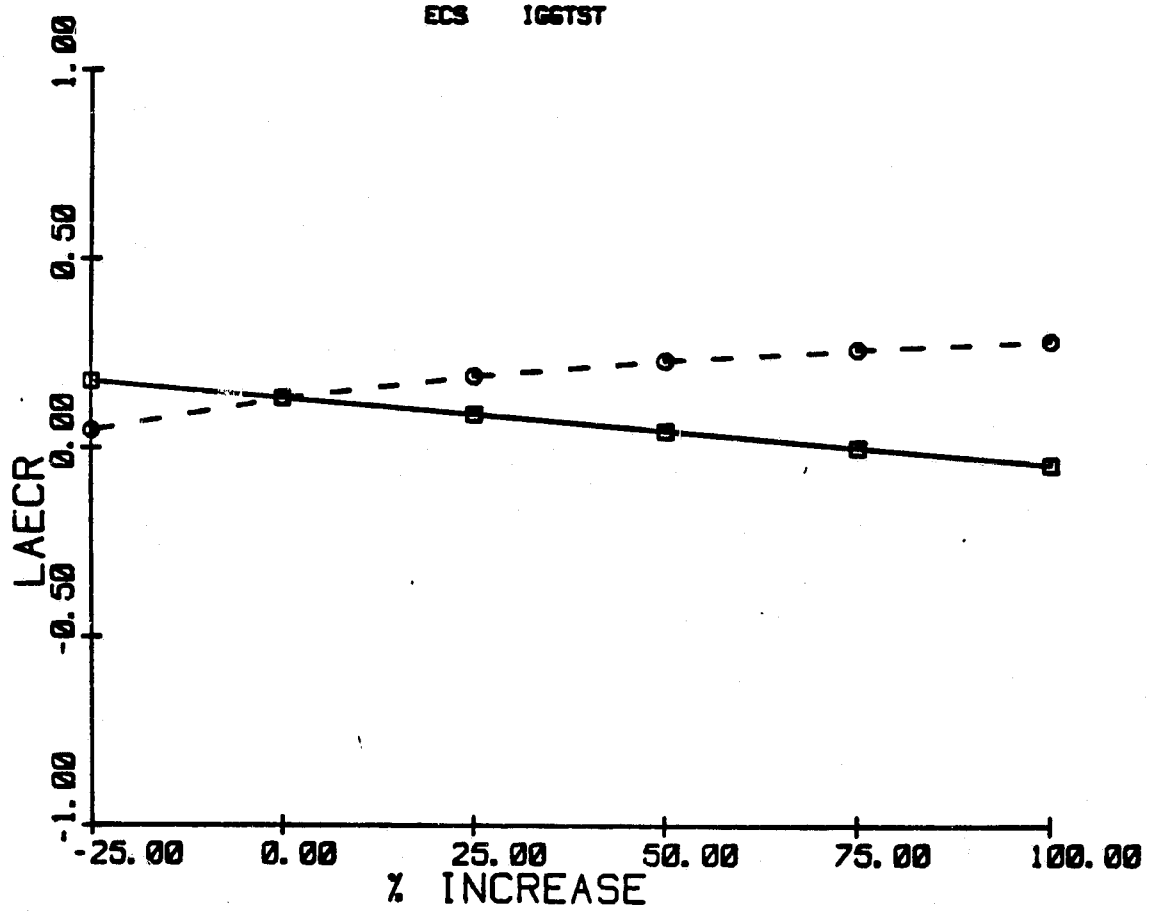
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28121

ECS IGGTST



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 62.8
PROCESS HEAT- 265	CAPITAL COST- 18.9	LAEC -41.706
(BTU*10**6)	LAEC -48.101	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -58
(BTU*10**6)		FUEL -COAL
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

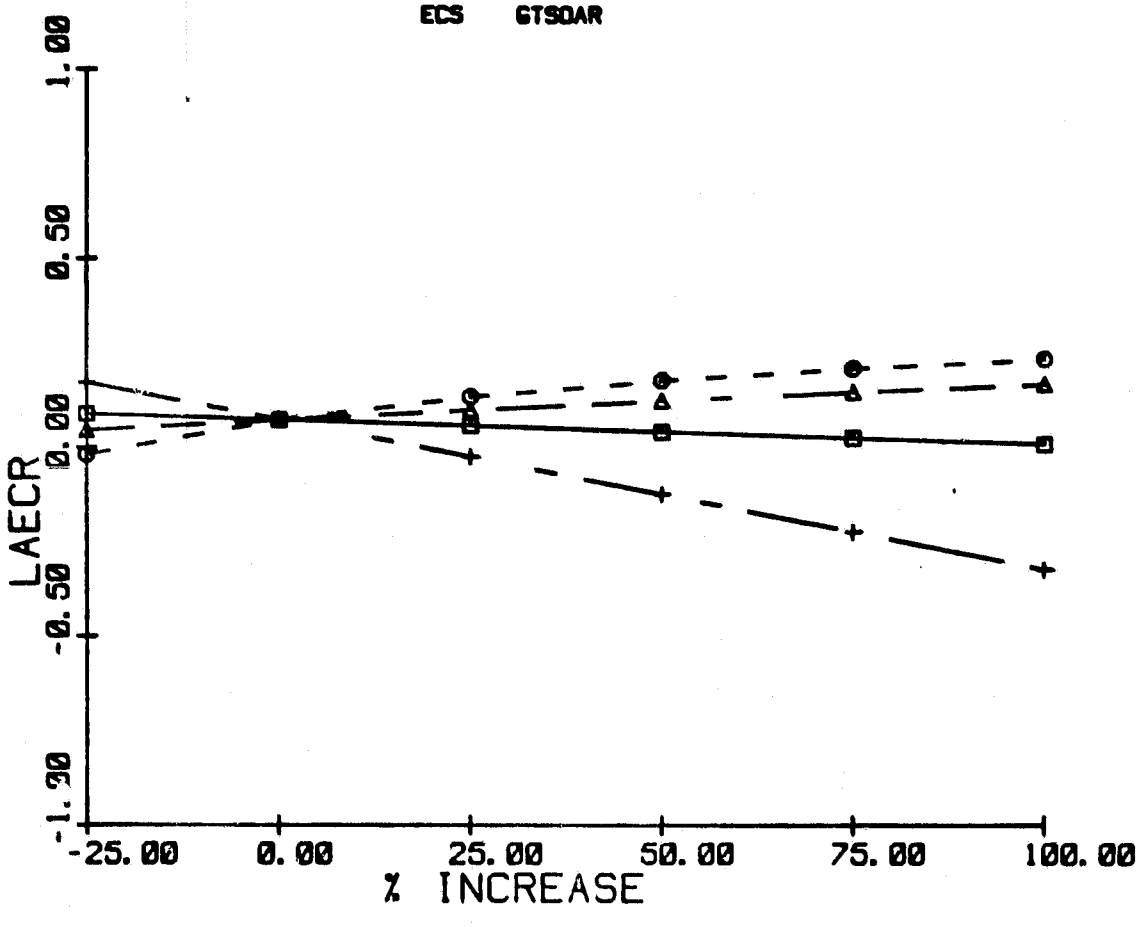
DATE 04/10/79 PAGE 150

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 23.2
PROCESS HEAT- 265	CAPITAL COST- 16.9	LAEC -44.500
(BTU*10**6)	LAEC -48.101	ROI -8
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -52
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

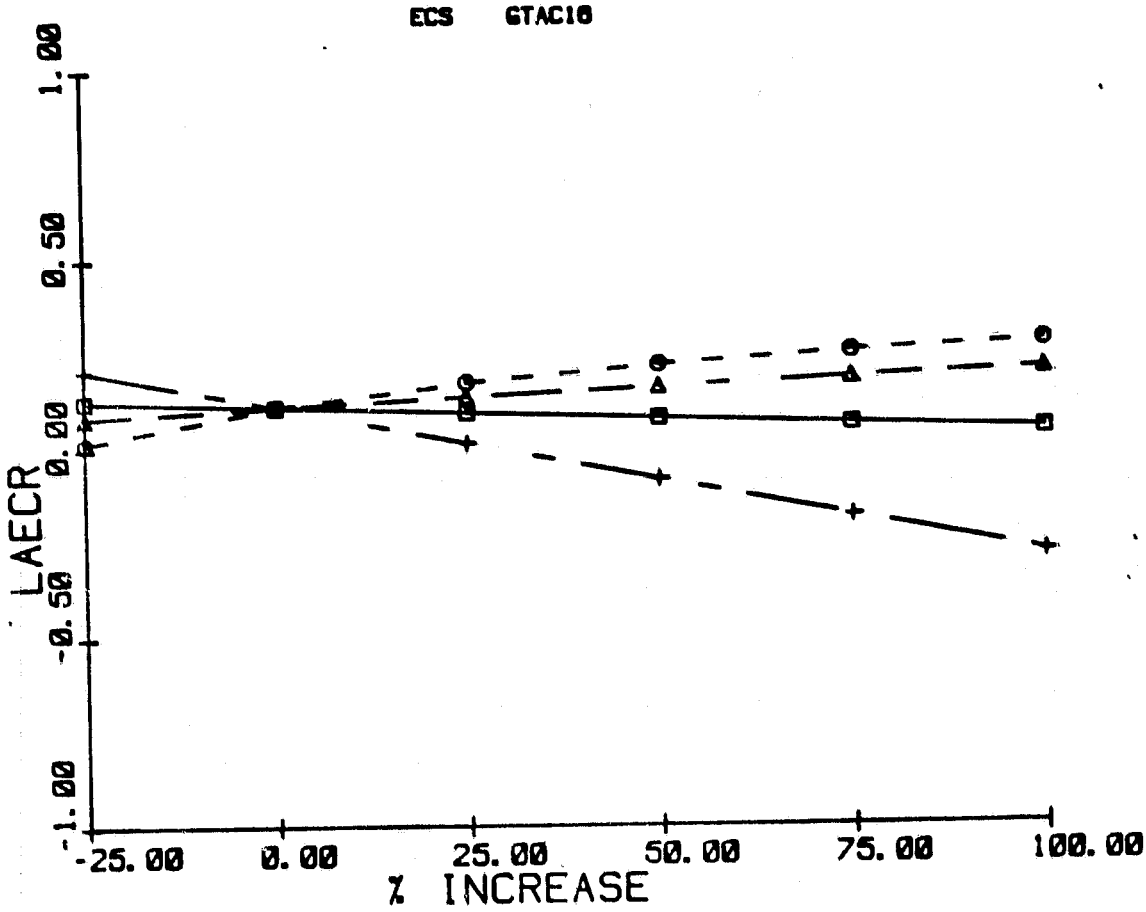
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS GTAC10



BASE CASE

NO COGENERATION

PROCESS

MW- 120

PROCESS HEAT- 265

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 1.545

CAPITAL COST- 16.9

LAEC -48.101

FUEL -COAL-FGD

COGENERATION

CAPITAL COST- 24.5

LAEC -42.619

ROI -0

MW(GEN) -58

FUEL -RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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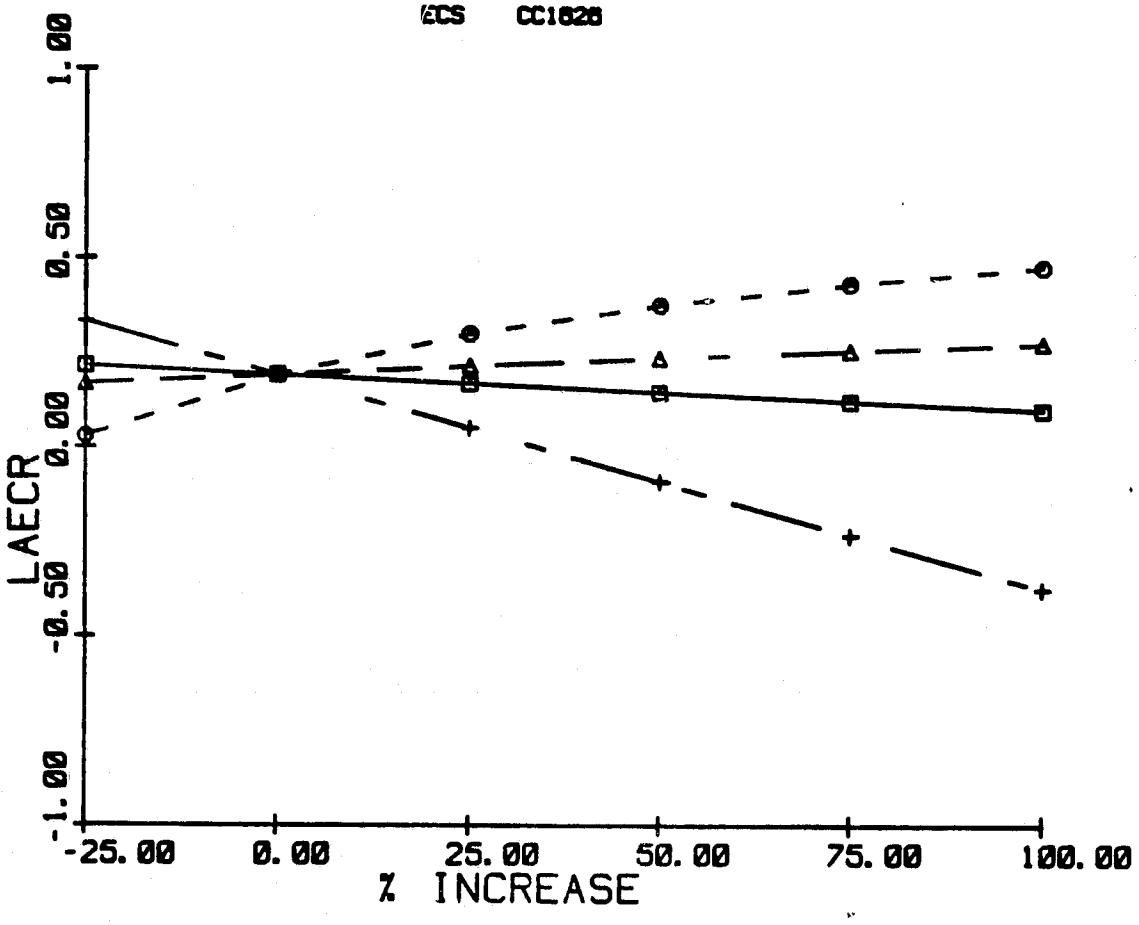
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS CC1626



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 33.1
PROCESS HEAT- 265	CAPITAL COST- 18.9	LAEC -36.884
(BTU*10**6)	LAEC -48.101	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -100
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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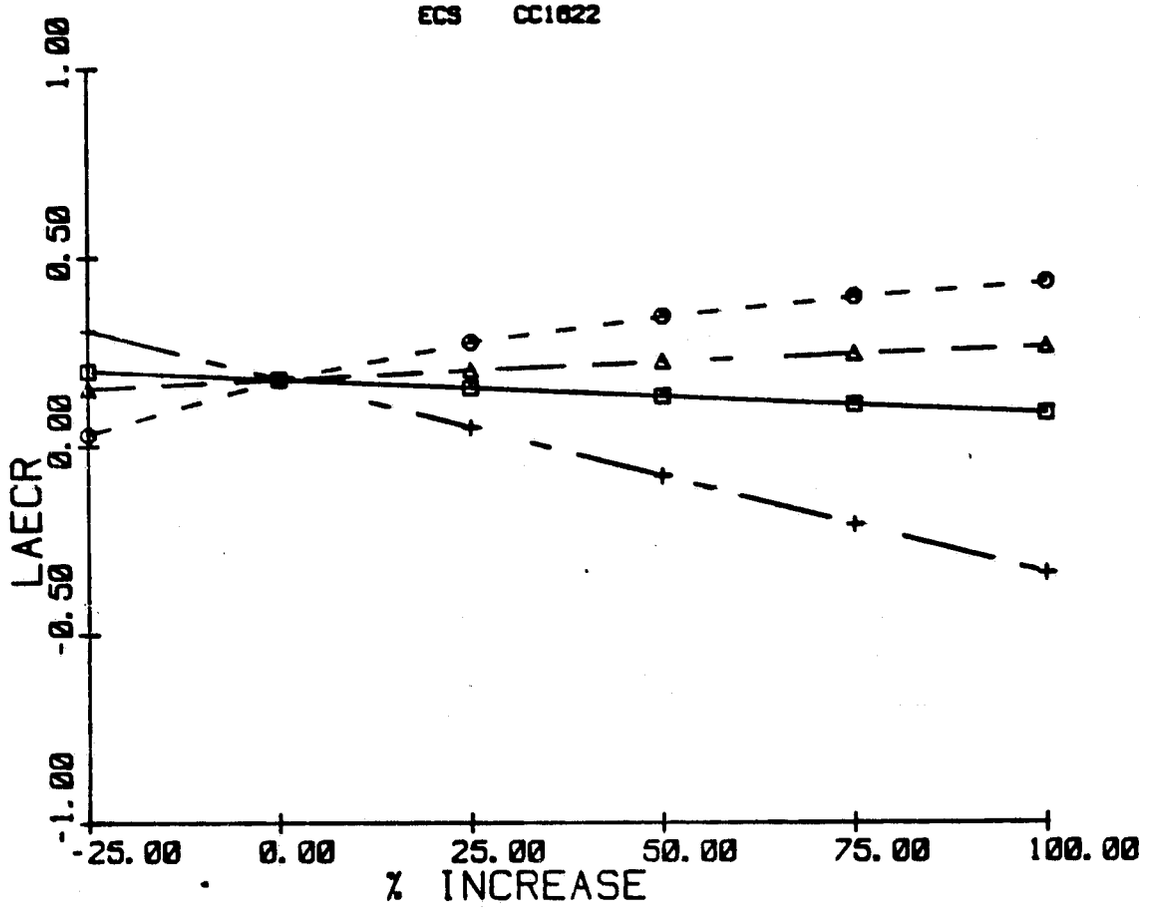
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS CC1622



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 32.8
PROCESS HEAT- 265	CAPITAL COST- 16.9	LAEC - 39.634
(BTU*10**6)	LAEC - 48.101	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 90
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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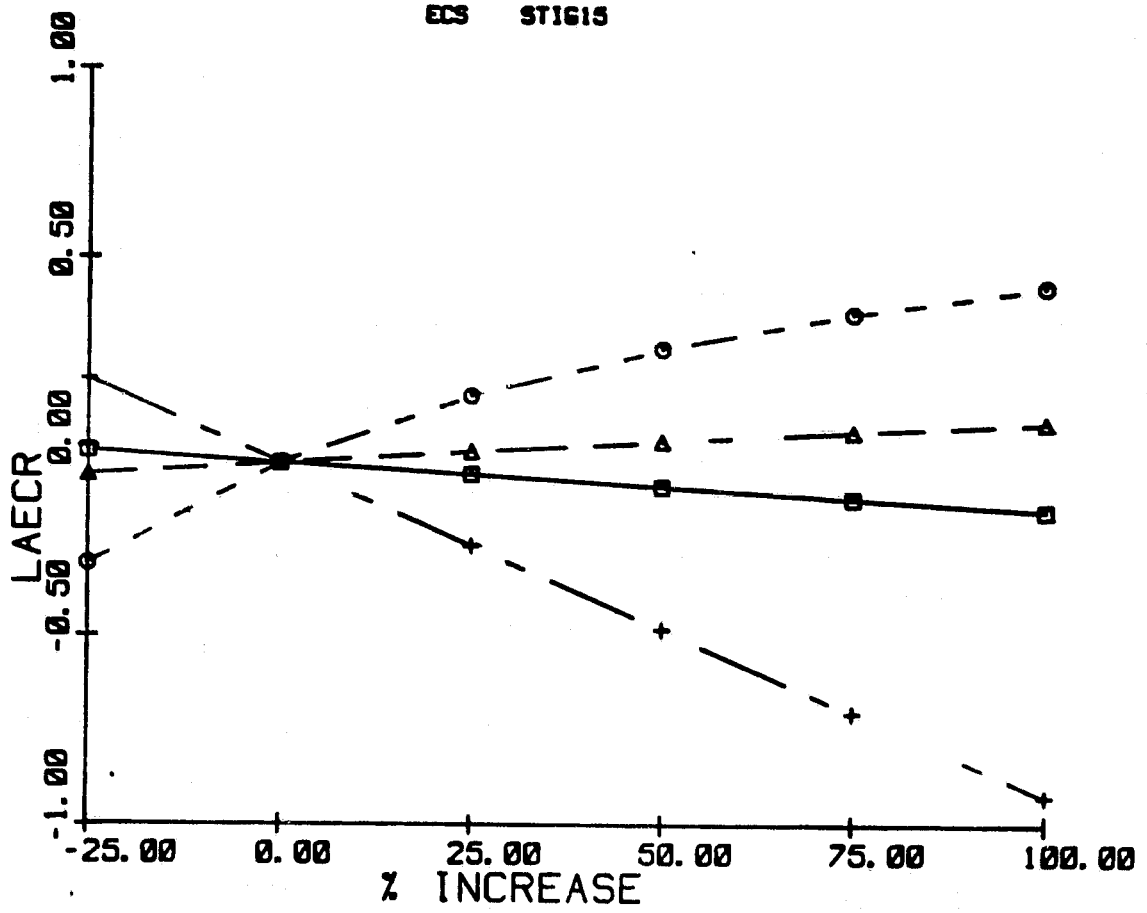
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS STIG15



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 45.9
PROCESS HEAT- 265	CAPITAL COST- 18.9	LAEC -50.186
(BTU*10**6)	LAEC -48.181	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -120
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

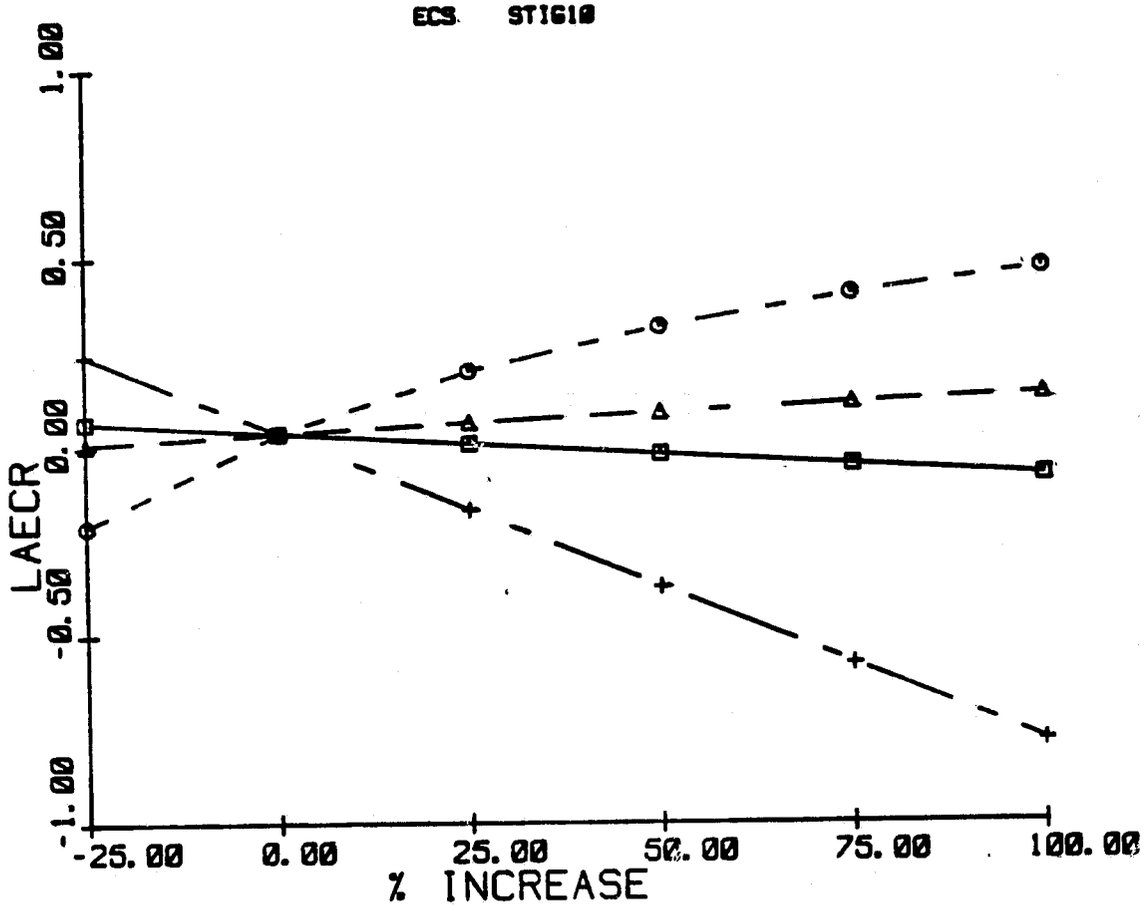
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS STIG10



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 42.5
PROCESS HEAT- 265	CAPITAL COST- 18.9	LAEC - 46.384
(BTU*10**6)	LAEC - 46.101	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 120
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

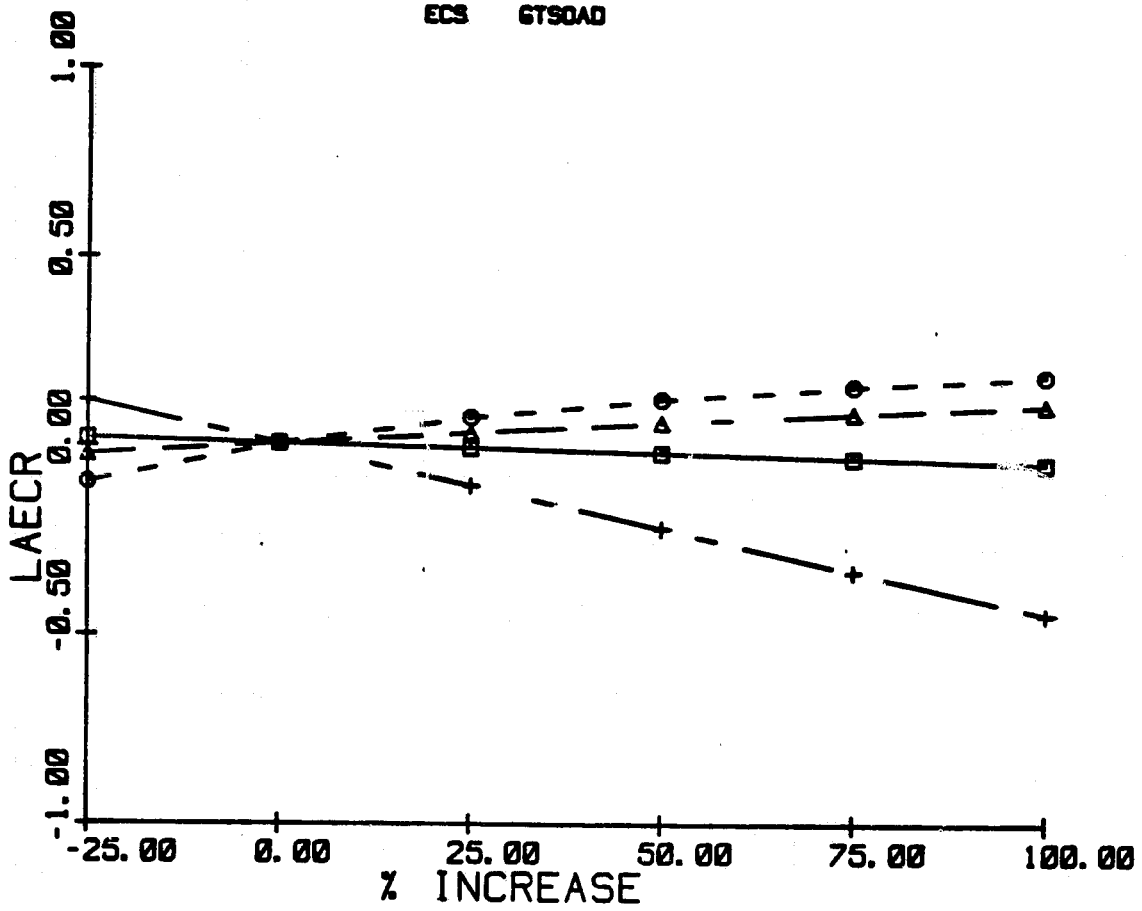
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS GTSOAD



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 19.0
PROCESS HEAT- 265	CAPITAL COST- 18.9	LAEC -47.765
(BTU*10**6)	LAEC -48.101	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -40
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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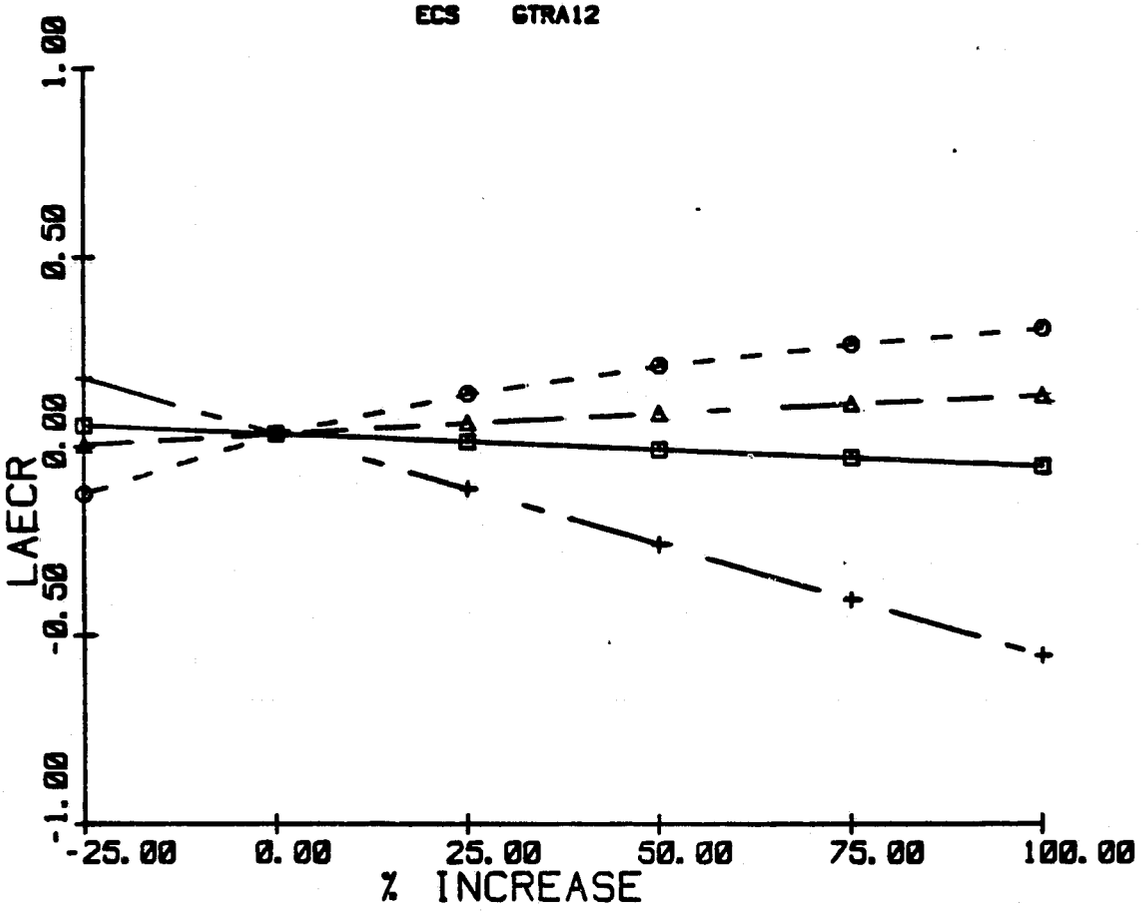
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28121

ECS GTRA12



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 120			CAPITAL COST- 31.9	
PROCESS HEAT- 265	CAPITAL COST- 16.9		LAEC	-46.506
(BTU*10**6)	LAEC	-46.101	ROI	-0
WASTE FUEL- 0	FUEL	-COAL-FGD	MW(GEN)	-76
(BTU*10**6)			FUEL	-DISTILLA
POWER/HEAT- 1.545				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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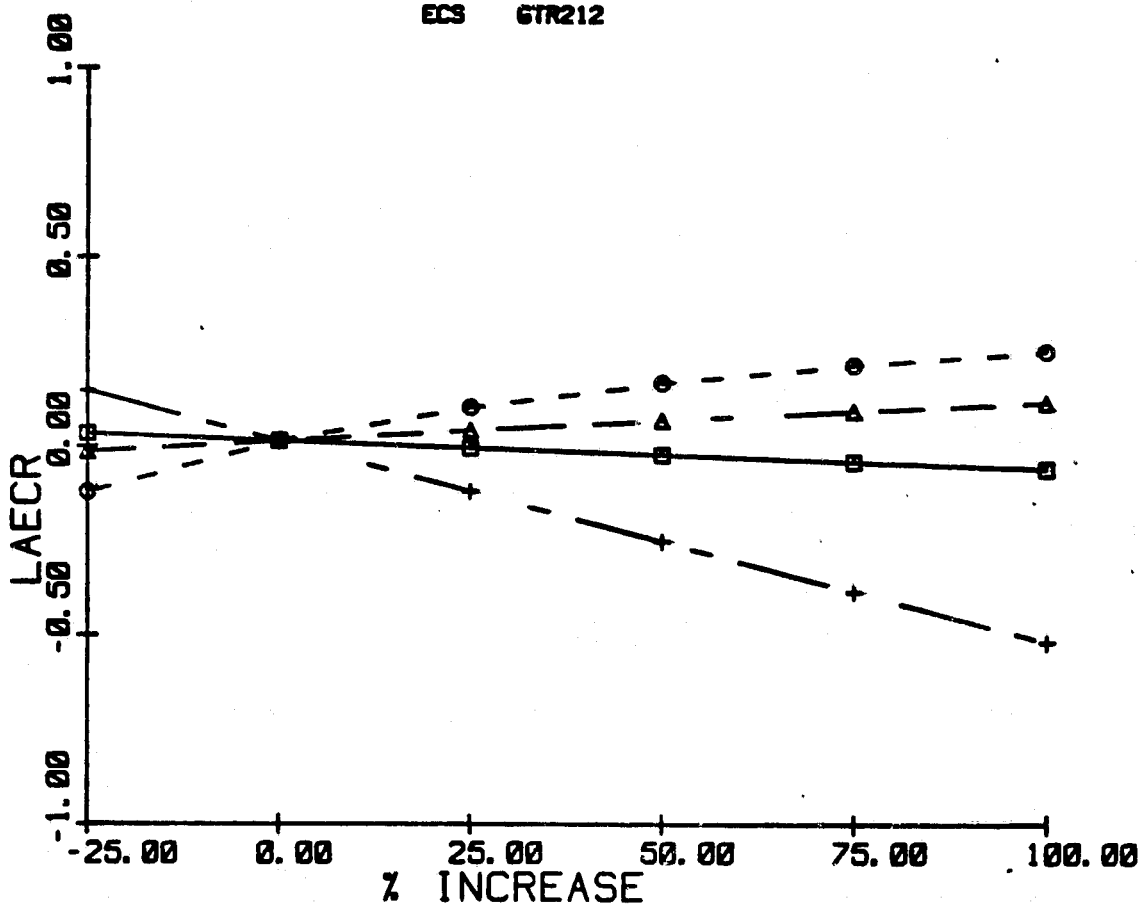
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20121

ECS 6TR212



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 27.1
PROCESS HEAT- 285	CAPITAL COST- 18.9	LAEC -47.433
(BTU*10**6)	LAEC -48.101	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -65
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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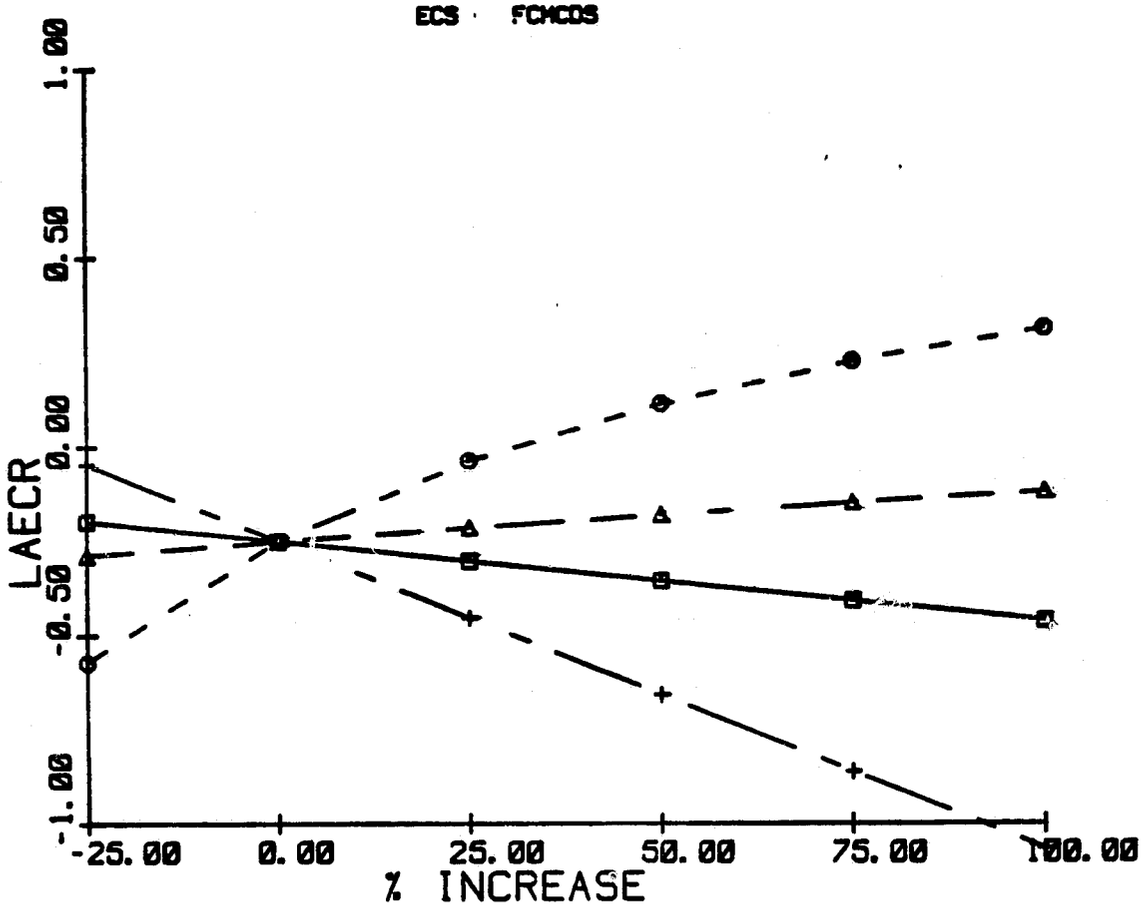
SENSITIVITY STUDY

PROCESS 20121

ECS FCMCOS



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 120		CAPITAL COST- 70.0
PROCESS HEAT- 265	CAPITAL COST- 16.9	LAEC -60.185
(BTU*10**6)	LAEC -48.101	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -120
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 1.545		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

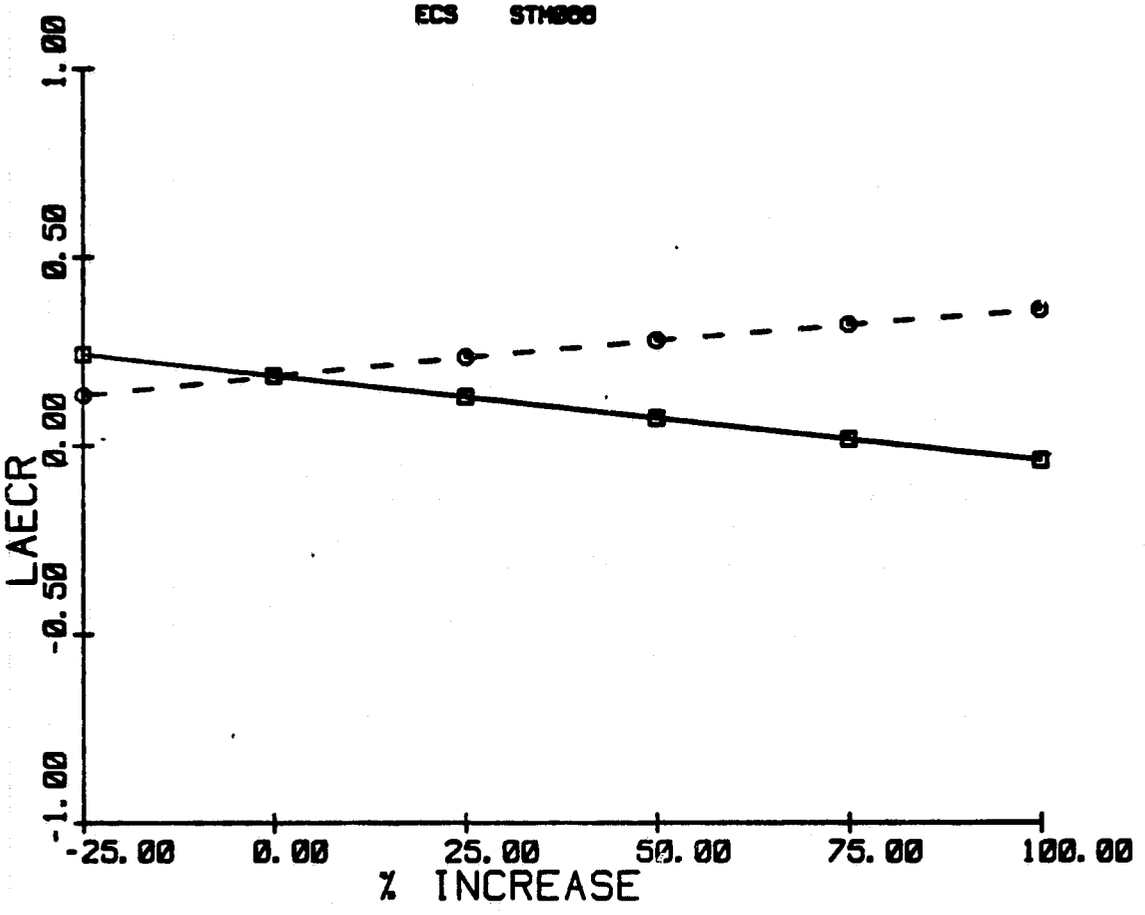
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28212

ECS STM000



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 4		CAPITAL COST- 14.0
PROCESS HEAT- 207	CAPITAL COST- 16.1	LAEC -0.763
(BTU*10**6)	LAEC -0.325	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -7
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.000		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

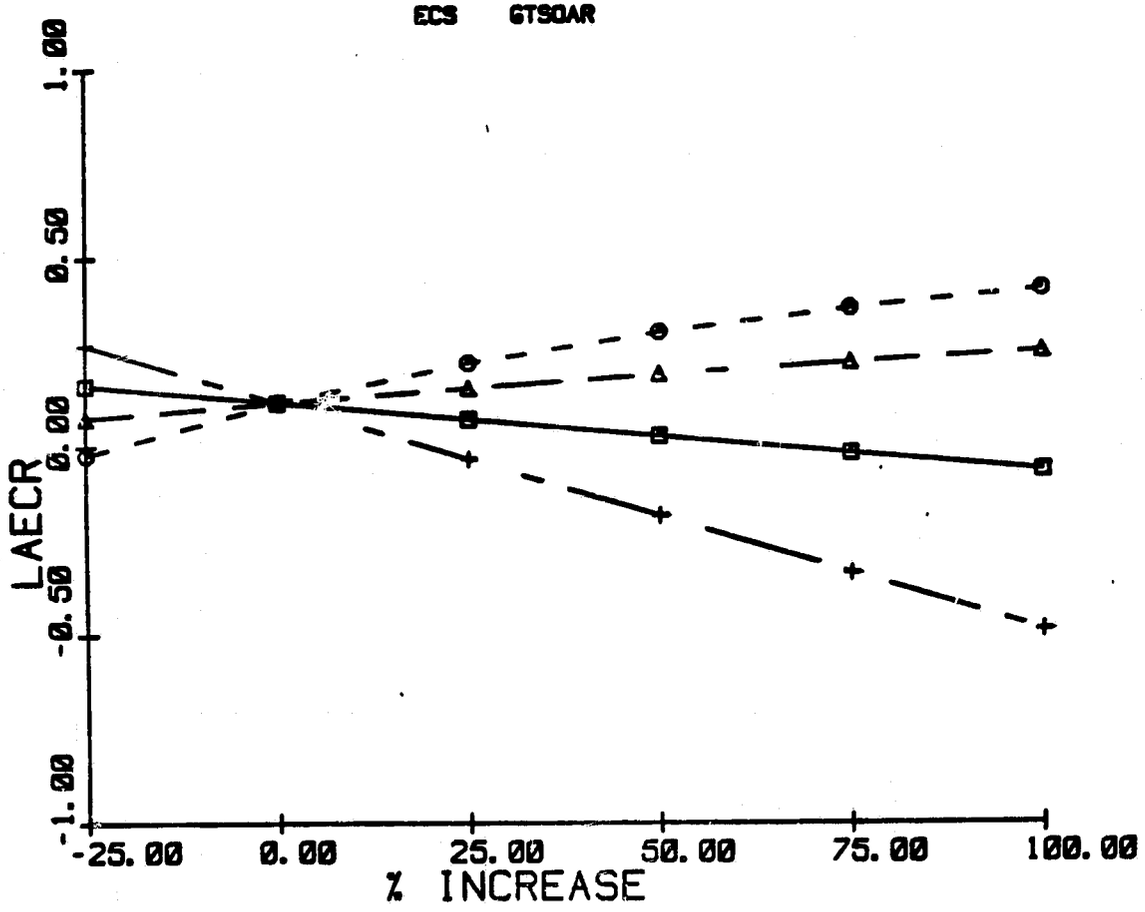
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20221

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 0		CAPITAL COST- 5.4
PROCESS HEAT- 35	CAPITAL COST- 4.2	LAEC -3.105
(BTU*10**6)	LAEC -3.851	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -7
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.731		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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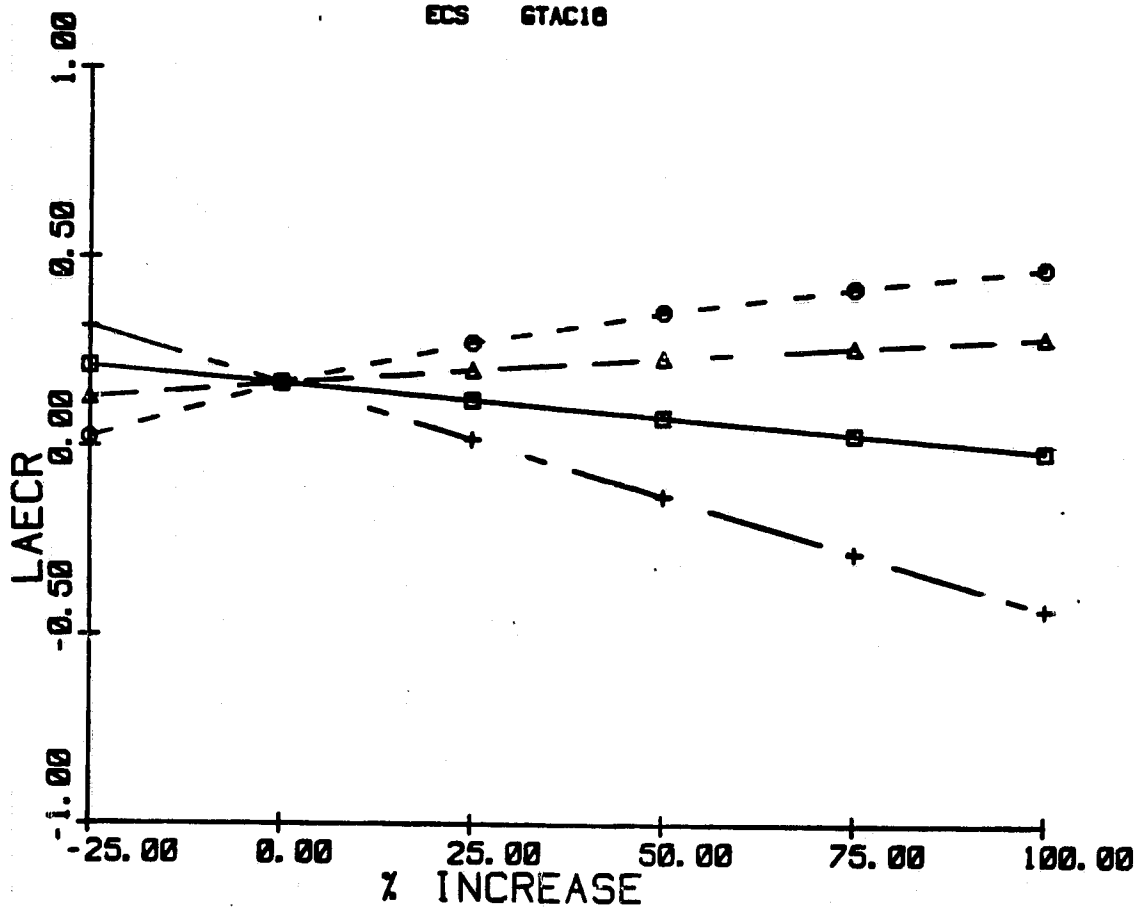
SENSITIVITY STUDY

PROCESS 28221

ECS GTAC1B



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 8		CAPITAL COST- 5.2
PROCESS HEAT- 35	CAPITAL COST- 4.2	LAEC -3.207
(BTU*10**6)	LAEC -3.851	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -8
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.731		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

DATE04/10/79

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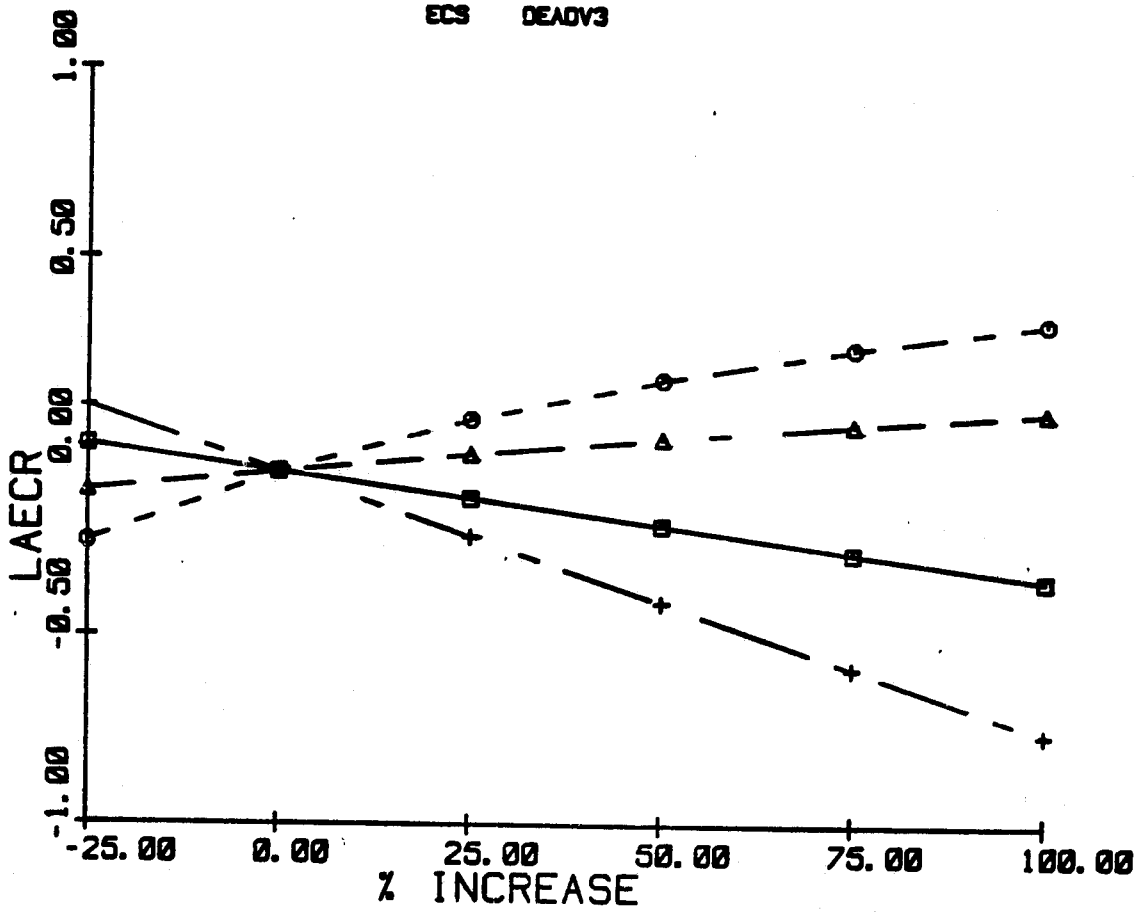
PROCESS 20221

ECS DEADV3



BASE CASE

NO COGENERATION

PROCESS

MW- 0

PROCESS HEAT- 35

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.731

CAPITAL COST- 4.2

LAEC - 3.651

FUEL - COAL-AFB

COGENERATION

CAPITAL COST- 0.4

LAEC - 4.100

ROI - 0

MW(GEN) - 0

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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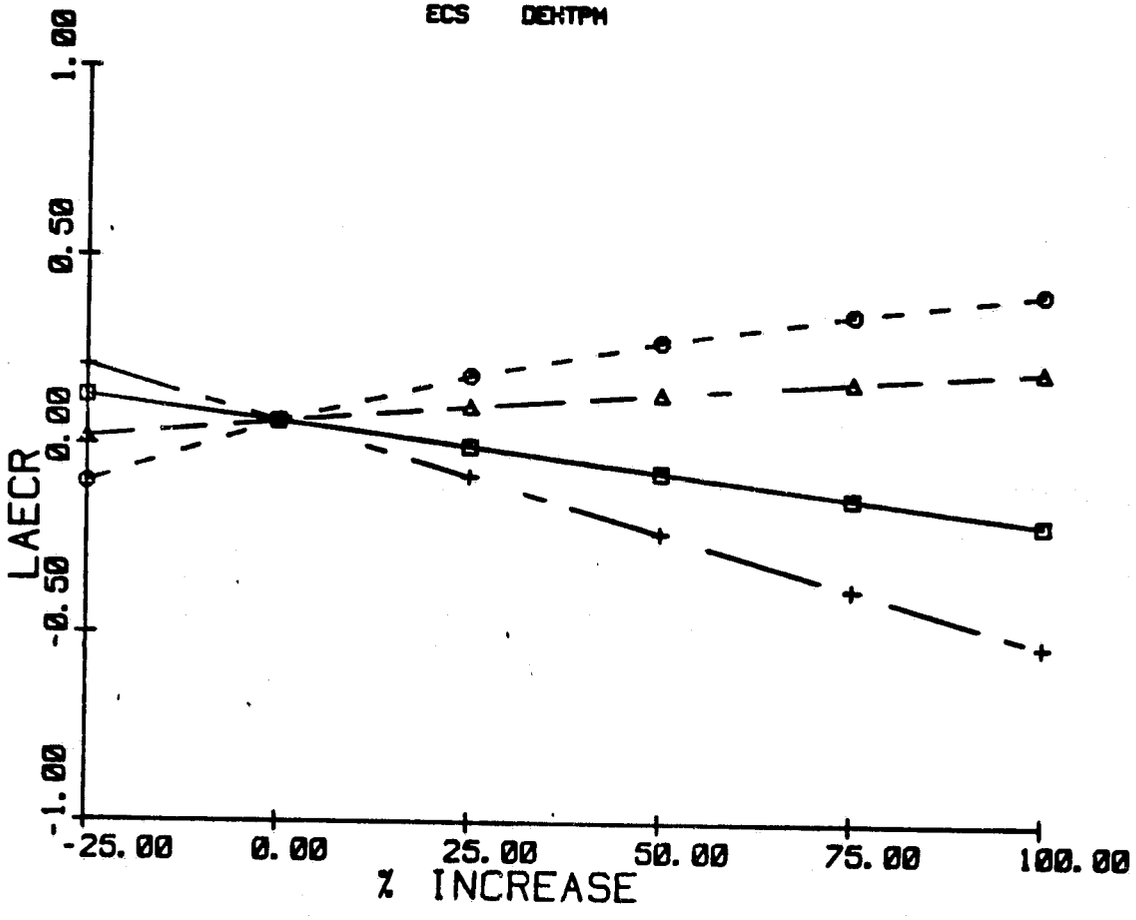
SENSITIVITY STUDY

PROCESS 26221

ECS DEKTPM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 0		
PROCESS HEAT- 35 (BTU*10**6)	CAPITAL COST- 4.2	CAPITAL COST- 7.8
WASTE FUEL- 0 (BTU*10**6)	LAEC -3.651	LAEC -3.613
POWER/HEAT- 0.731	FUEL -COAL-AFB	ROI -0
		MW(GEN) -0
		FUEL -RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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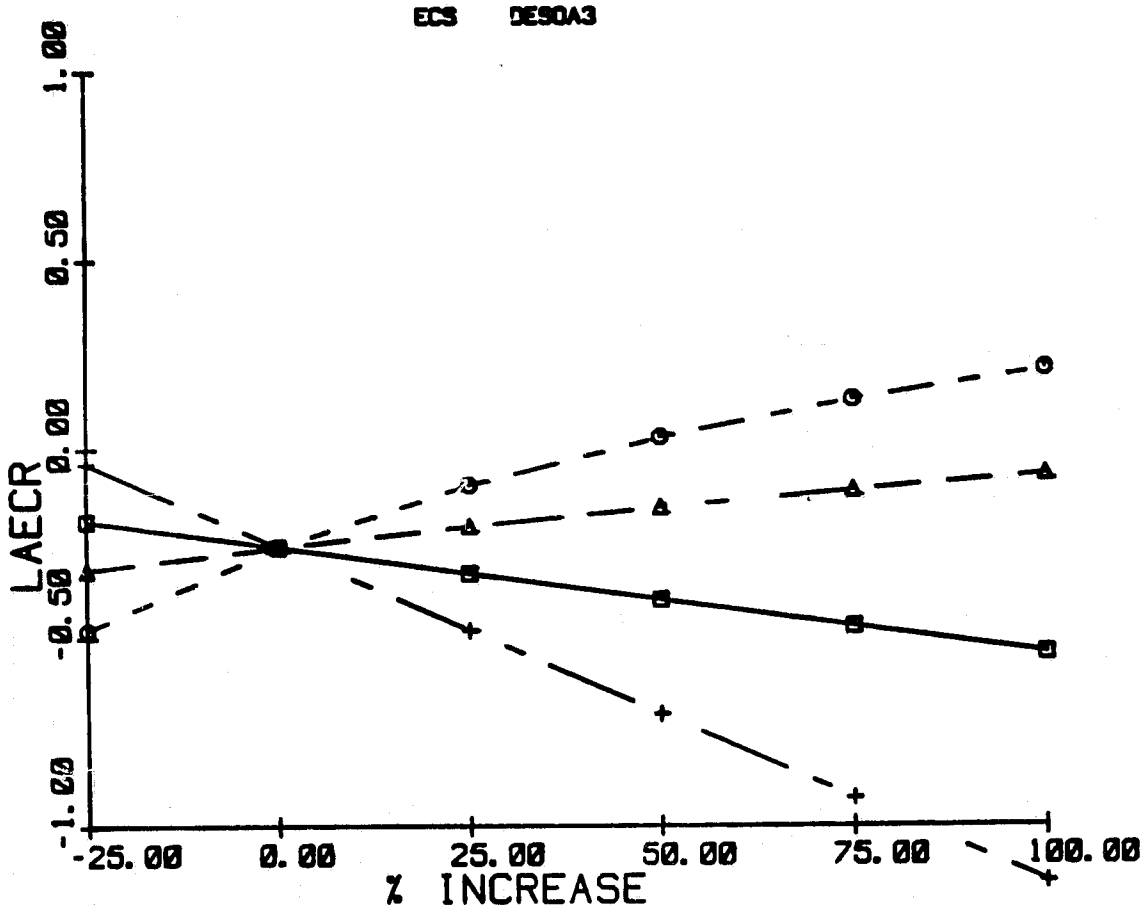
SENSITIVITY STUDY

PROCESS 28221

ECS DE90A3



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 8		CAPITAL COST-8.3
PROCESS HEAT-35	CAPITAL COST-4.2	LAEC -4.656
(BTU*10**6)	LAEC -3.651	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -8
(BTU*10**6)		FUEL -DISTILLA
POWER/HEAT- 0.731		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

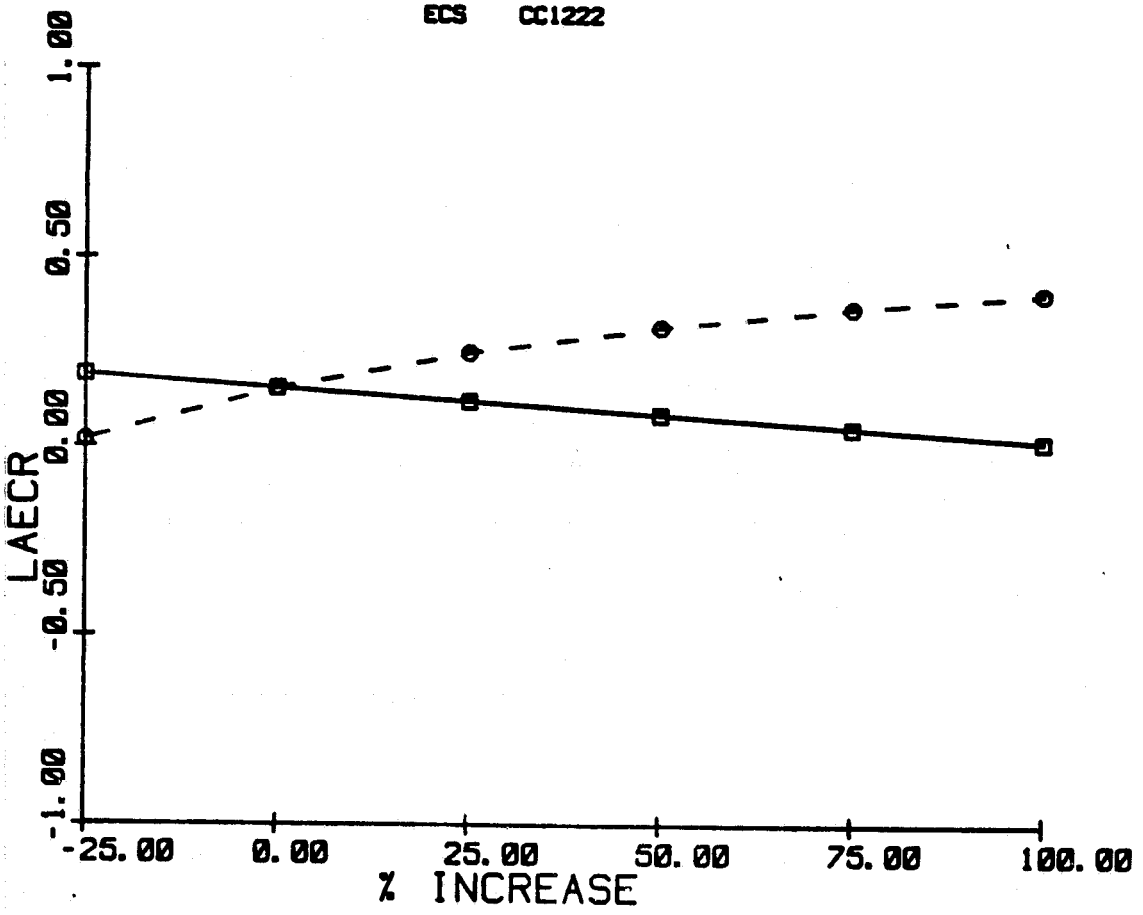
DATE84/10/70

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28242

ECS CC1222



BASE CASE

PROCESS

MW- 11

PROCESS HEAT- 23

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 1.632

NO COGENERATION

CAPITAL COST- 1.5

LAEC -4.919

FUEL -RESIDUAL

COGENERATION

CAPITAL COST- 5.1

LAEC -4.160

ROI -0

MW(GEN) -0

FUEL -RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

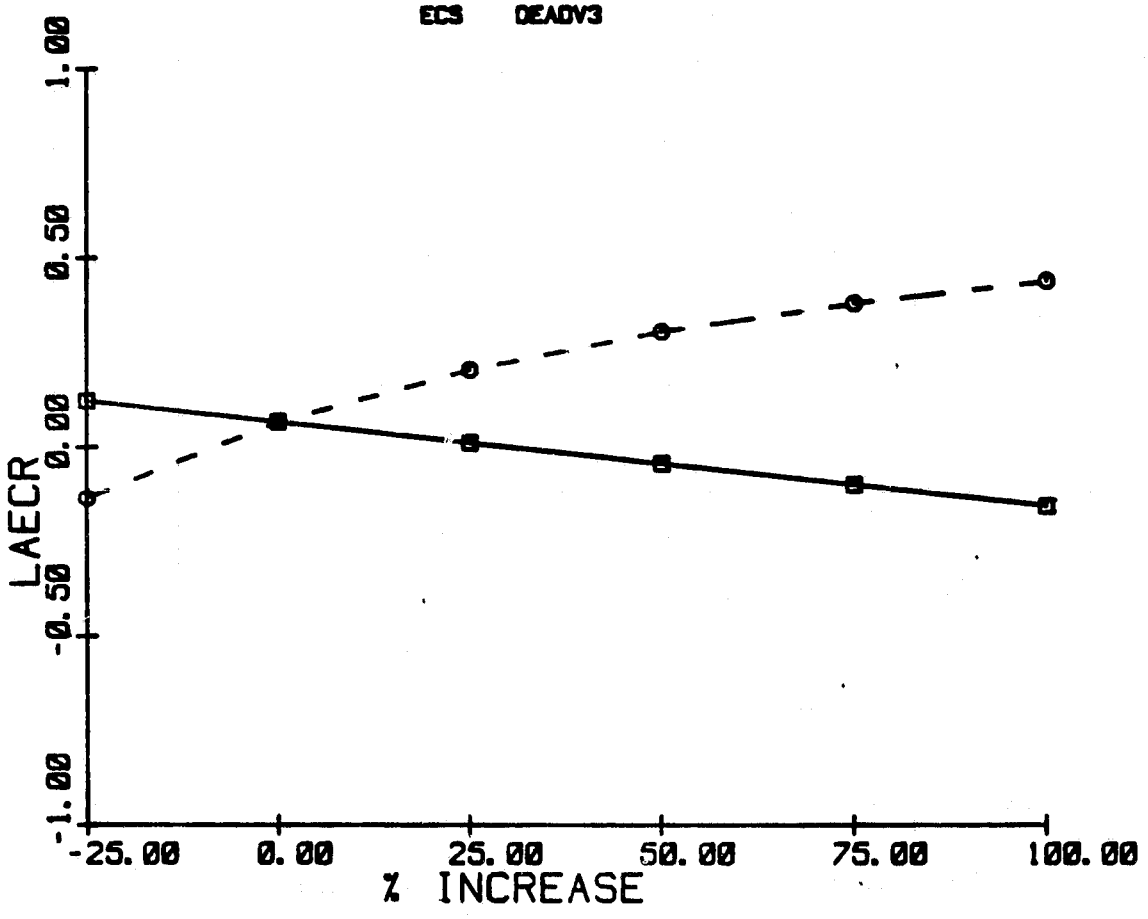
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20242

ECS DEADV3



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 11		CAPITAL COST- 8.4
PROCESS HEAT- 23	CAPITAL COST- 1.5	LAEC -4.503
(BTU*10**6)	LAEC -4.910	ROI -0
WASTE FUEL- 0	FUEL -RESIDUAL	MW(GEN) -10
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.632		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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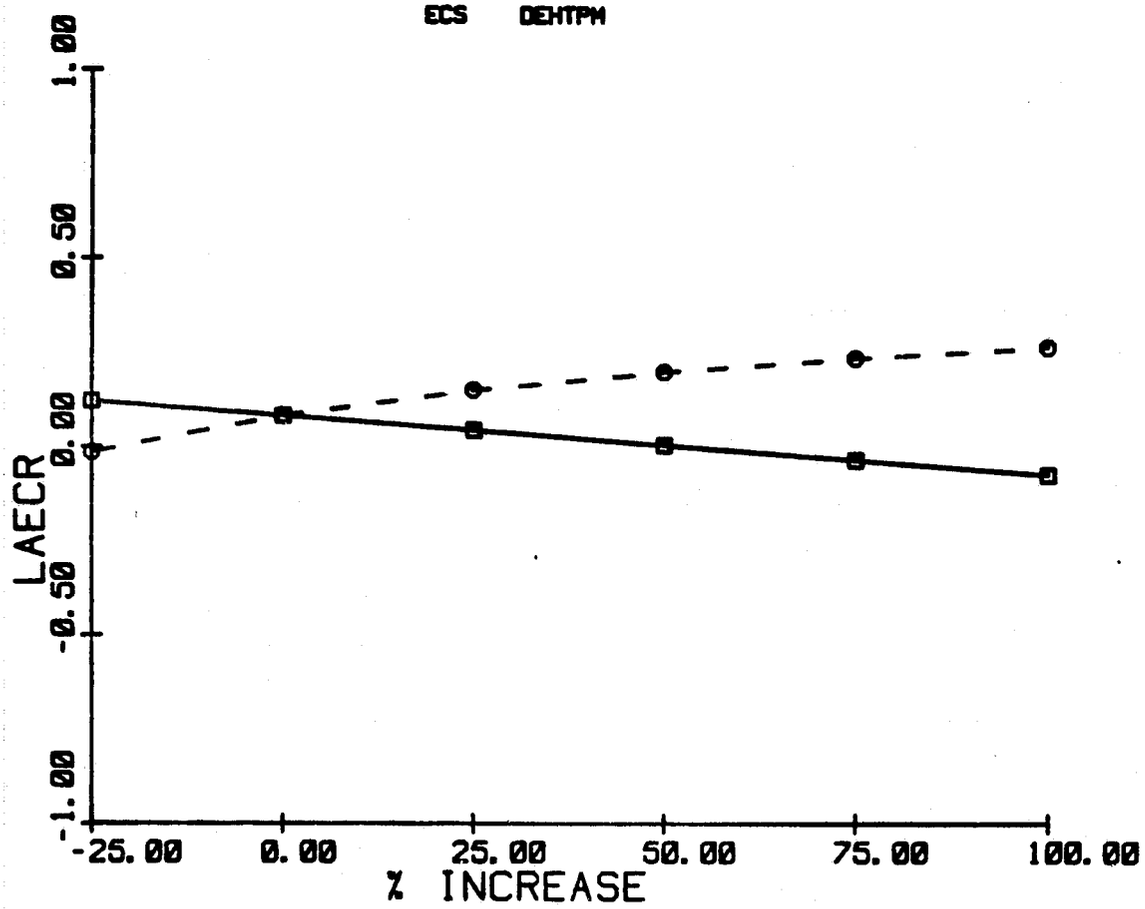
SENSITIVITY STUDY

PROCESS 28242

ECS DEHTPM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 11		CAPITAL COST- 5.9
PROCESS HEAT- 23	CAPITAL COST- 1.5	LAEC - 4.516
(BTU*10**6)	LAEC - 4.919	ROI - 0
WASTE FUEL- 0	FUEL - RESIDUAL	MW(GEN) - 6
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 1.632		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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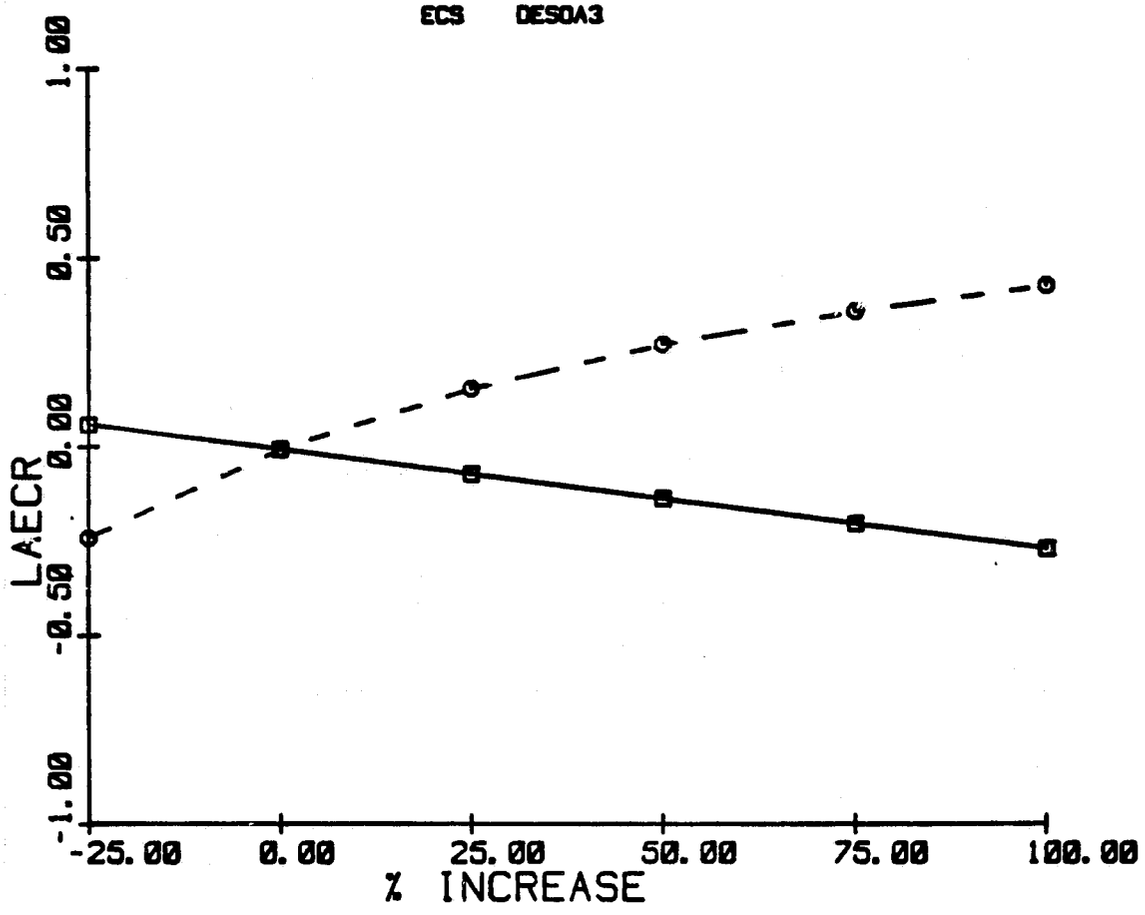
SENSITIVITY STUDY

PROCESS 28242

ECS DESOA3



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 11		CAPITAL COST- 9.9
PROCESS HEAT- 23	CAPITAL COST- 1.5	LAEC -4.957
(BTU*10**6)	LAEC -4.919	ROI -0
WASTE FUEL- 0	FUEL -RESIDUAL	MW(GEN) -11
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.632		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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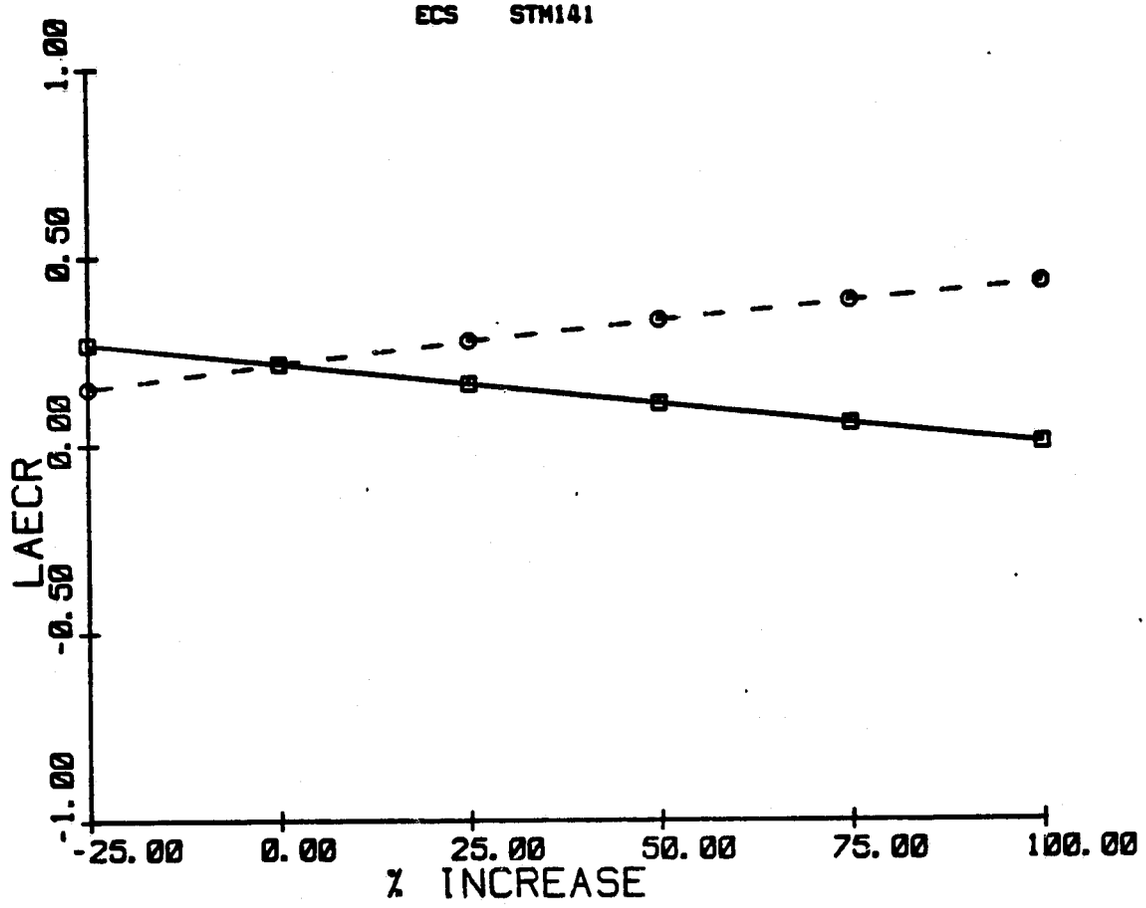
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20053

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST- 18.2
PROCESS HEAT- 300	CAPITAL COST- 20.5	LAEC -0.031
(BTU*10**6)	LAEC -11.502	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -13
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.008		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

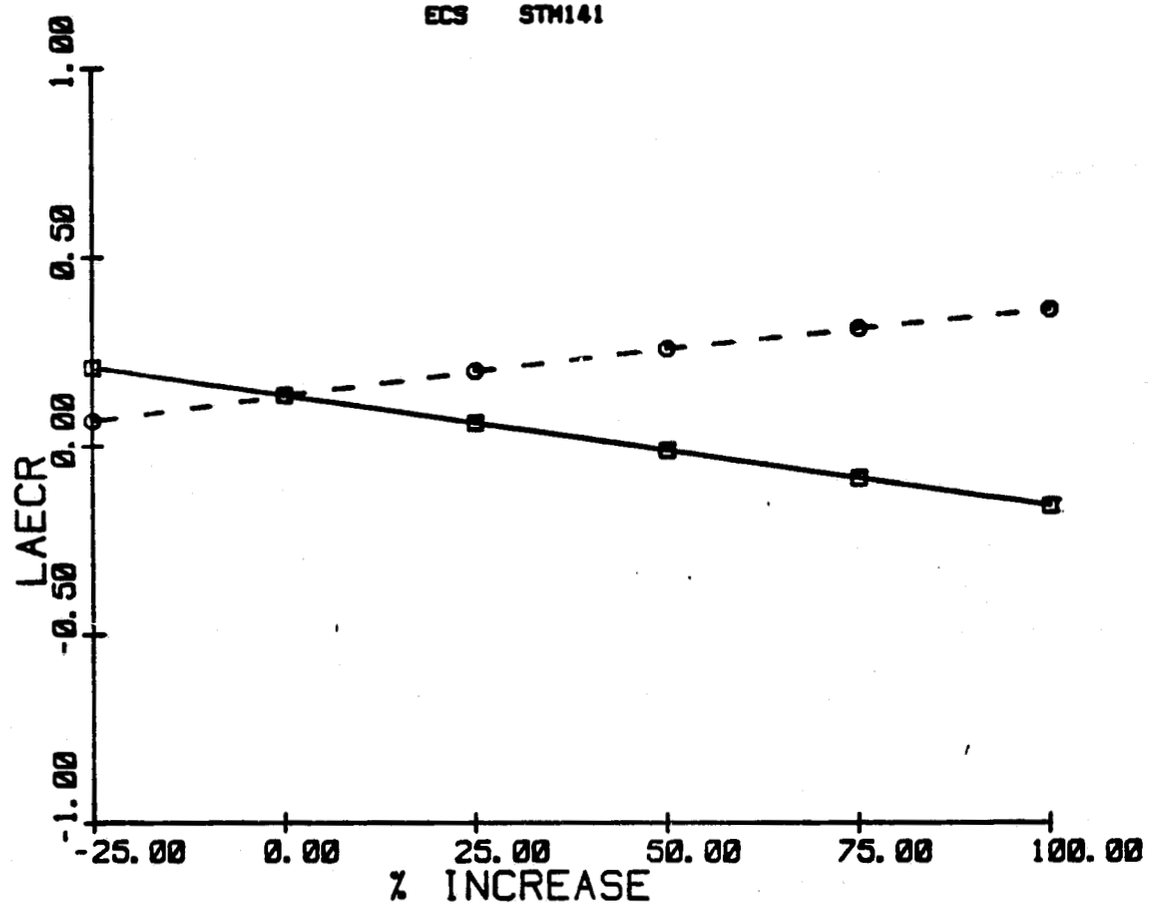
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20653

ECS STM141



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 6			CAPITAL COST-	25.3
PROCESS HEAT- 300	CAPITAL COST-	20.5	LAEC	-0.966
(BTU*10**6)	LAEC	-11.502	ROI	-0
WASTE FUEL- 0	FUEL	-COAL-FGD	MW(GEN)	-13
(BTU*10**6)			FUEL	-COAL-FGD
POWER/HEAT- 0.060				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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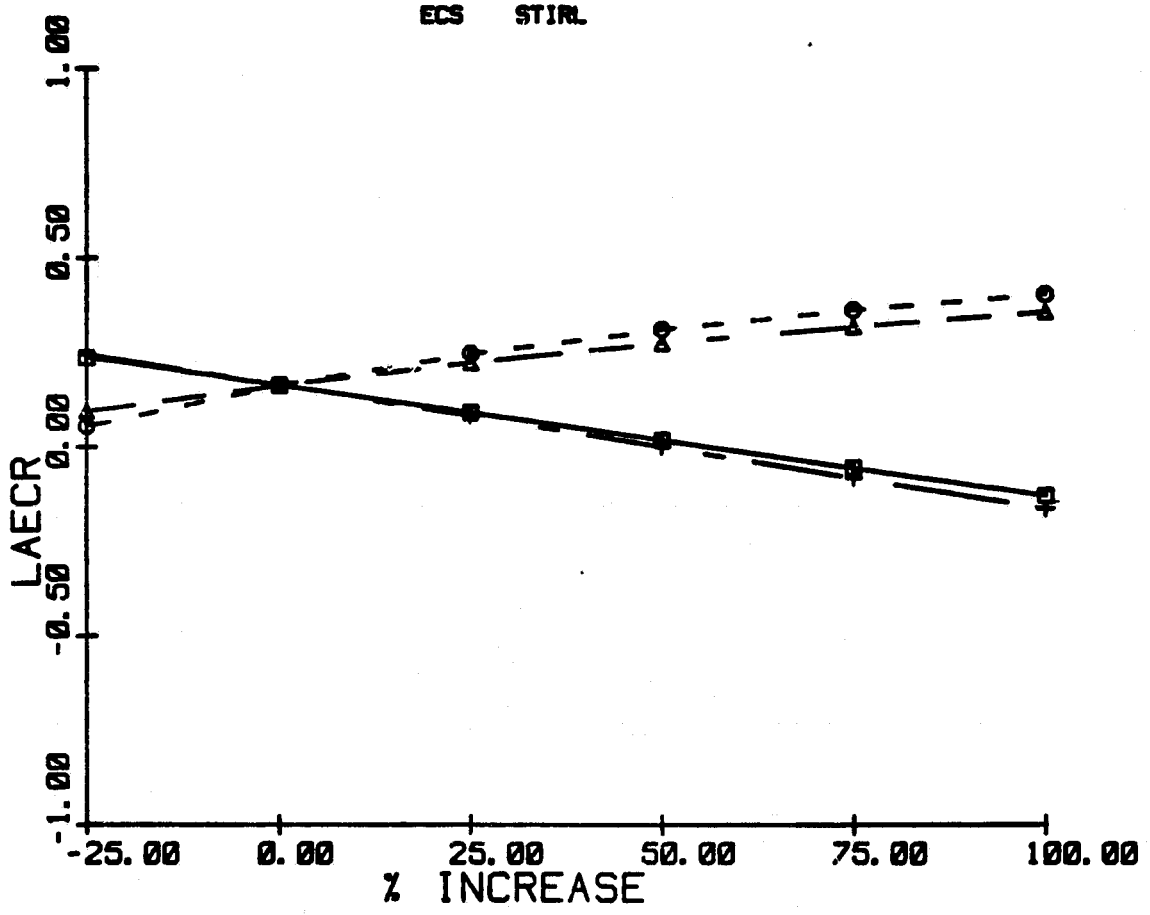
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20051

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 4		CAPITAL COST- 5.0
PROCESS HEAT- 20	CAPITAL COST- 1.4	LAEC - 1.655
(BTU*10**6)	LAEC - 2.217	ROI - 0
WASTE FUEL- 0	FUEL - RESIDUAL	MW(GEN) - 3
(BTU*10**6)		FUEL - COAL
POWER/HEAT- 0.682		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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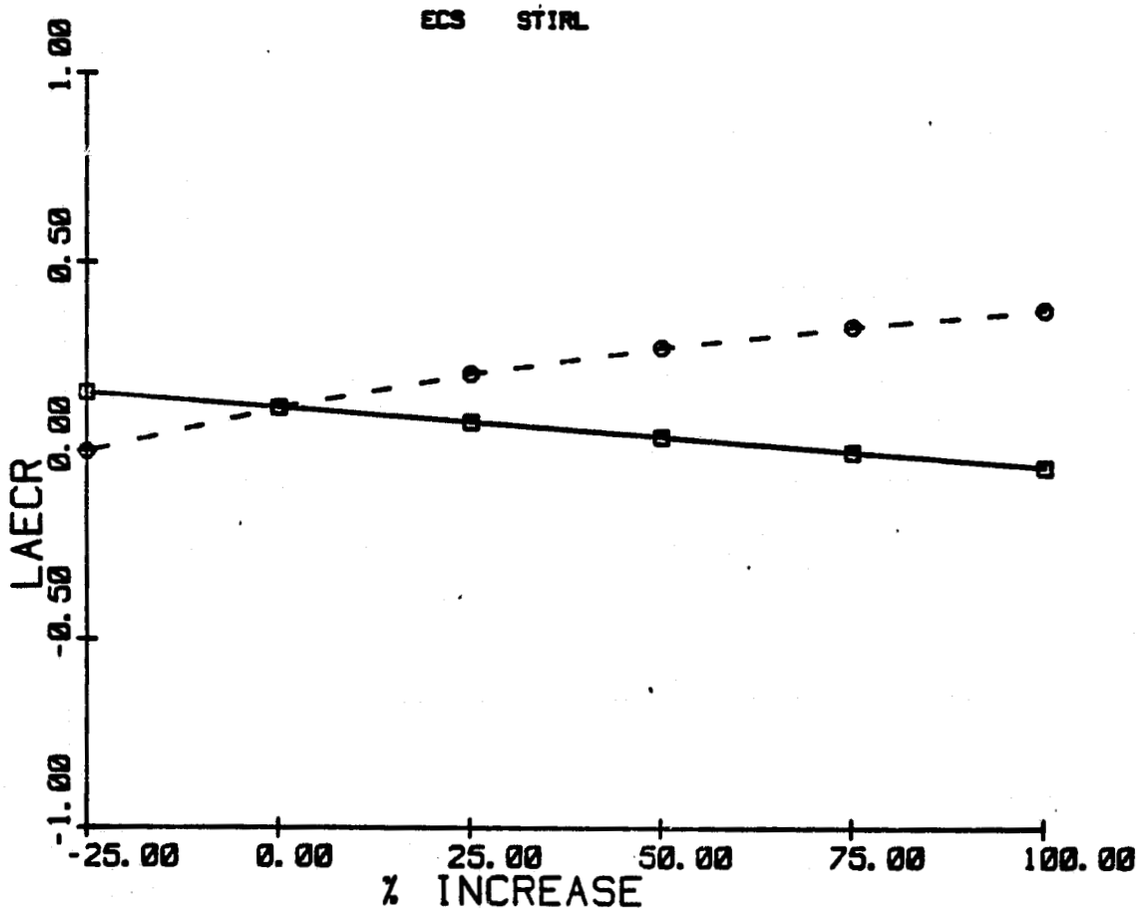
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28951

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 4		CAPITAL COST- 2.7
PROCESS HEAT- 20	CAPITAL COST- 1.4	LAEC - 1.962
(BTU*10**6)	LAEC - 2.217	ROI - 0
WASTE FUEL- 0	FUEL - RESIDUAL	MW(GEN) - 3
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.082		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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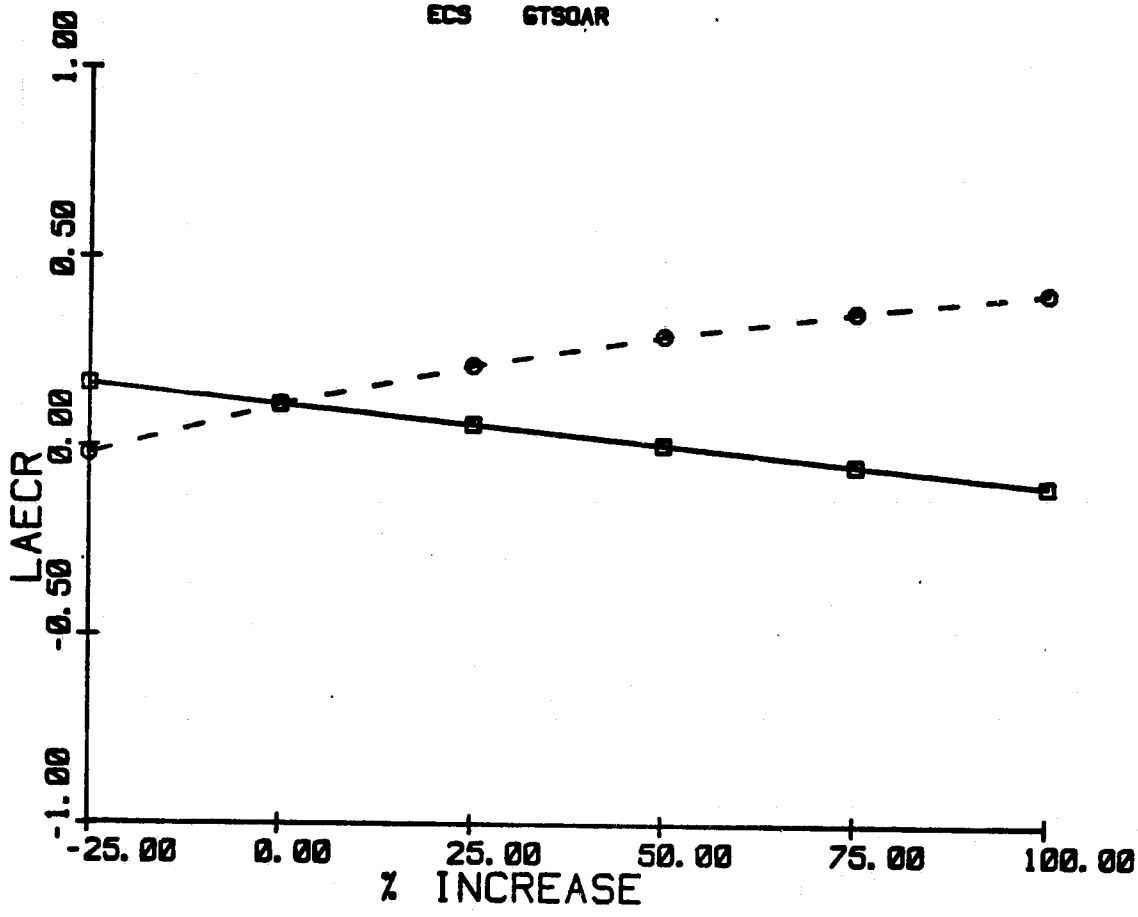
SENSITIVITY STUDY

PROCESS 28961

ECS GTSOAR



BASE CASE

PROCESS

MW- 4

PROCESS HEAT- 20

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.682

NO COGENERATION

CAPITAL COST- 1.4

LAEC - 2.217

FUEL - RESIDUAL

COGENERATION

CAPITAL COST- 3.6

LAEC - 1.969

ROI - 0

MW(GEN) - 4

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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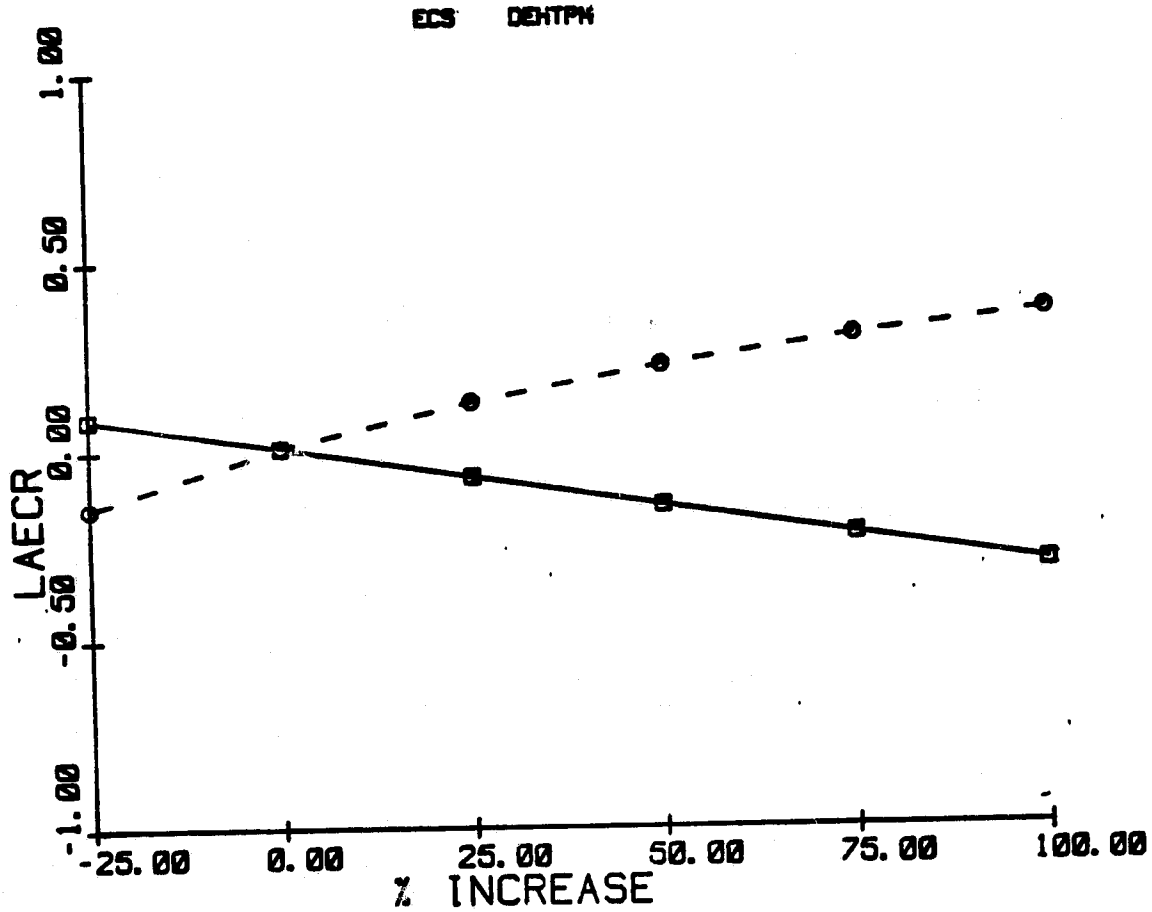
PROCESS 28951

ECS DEHTPH



BASE CASE

NO COGENERATION

CAPITAL COST= 1.4

LAEC = 2.217

FUEL = RESIDUAL

PROCESS

MW= 4

PROCESS HEAT= 20 (BTU*10**6)

WASTE FUEL= 0 (BTU*10**6)

POWER/HEAT= 0.682

COGENERATION

CAPITAL COST= 5.3

LAEC = 2.200

ROI = 0

MW(GEN) = 4

FUEL = RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

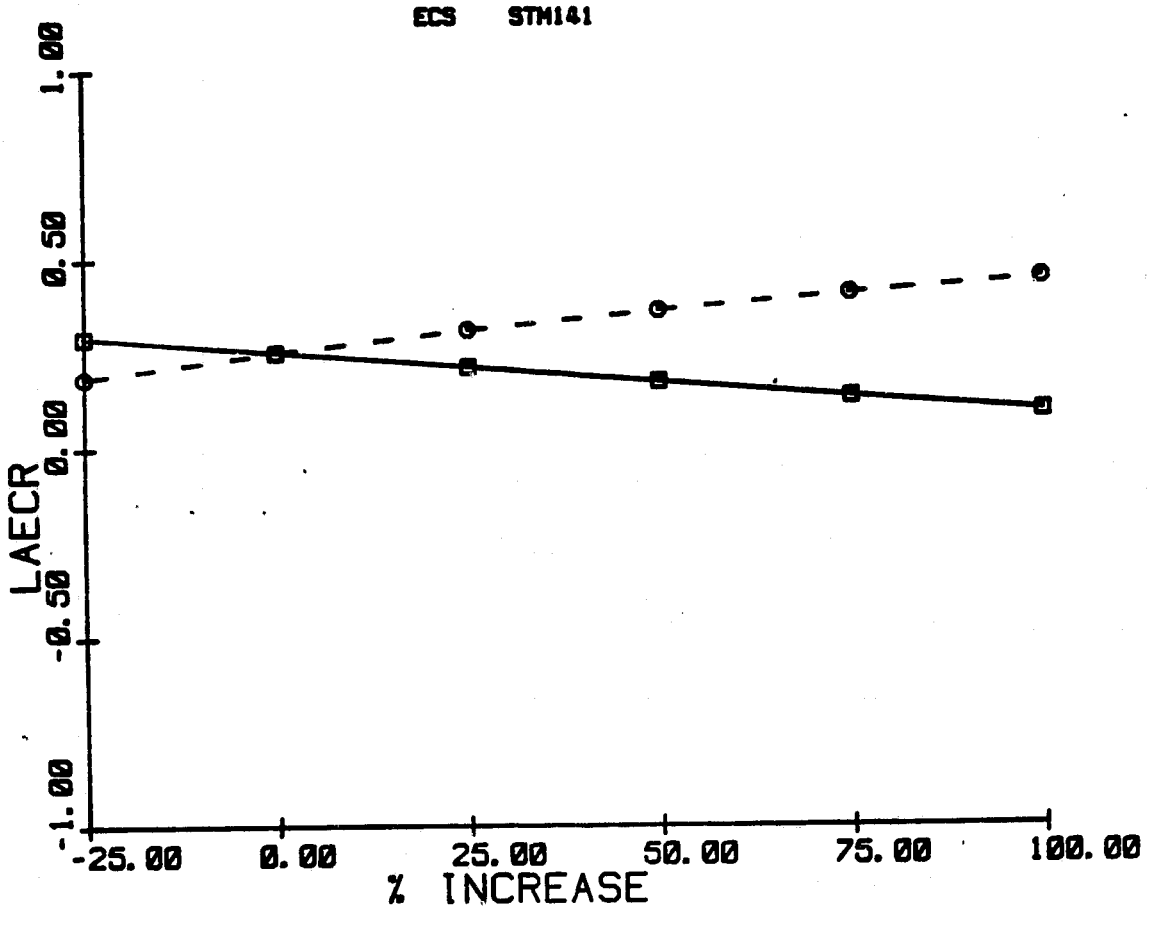
DATE 04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20112

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 52		CAPITAL COST- 69.6
PROCESS HEAT- 1333	CAPITAL COST- 77.5	LAEC -43.639
(BTU*10**6)	LAEC -58.784	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -60
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.133		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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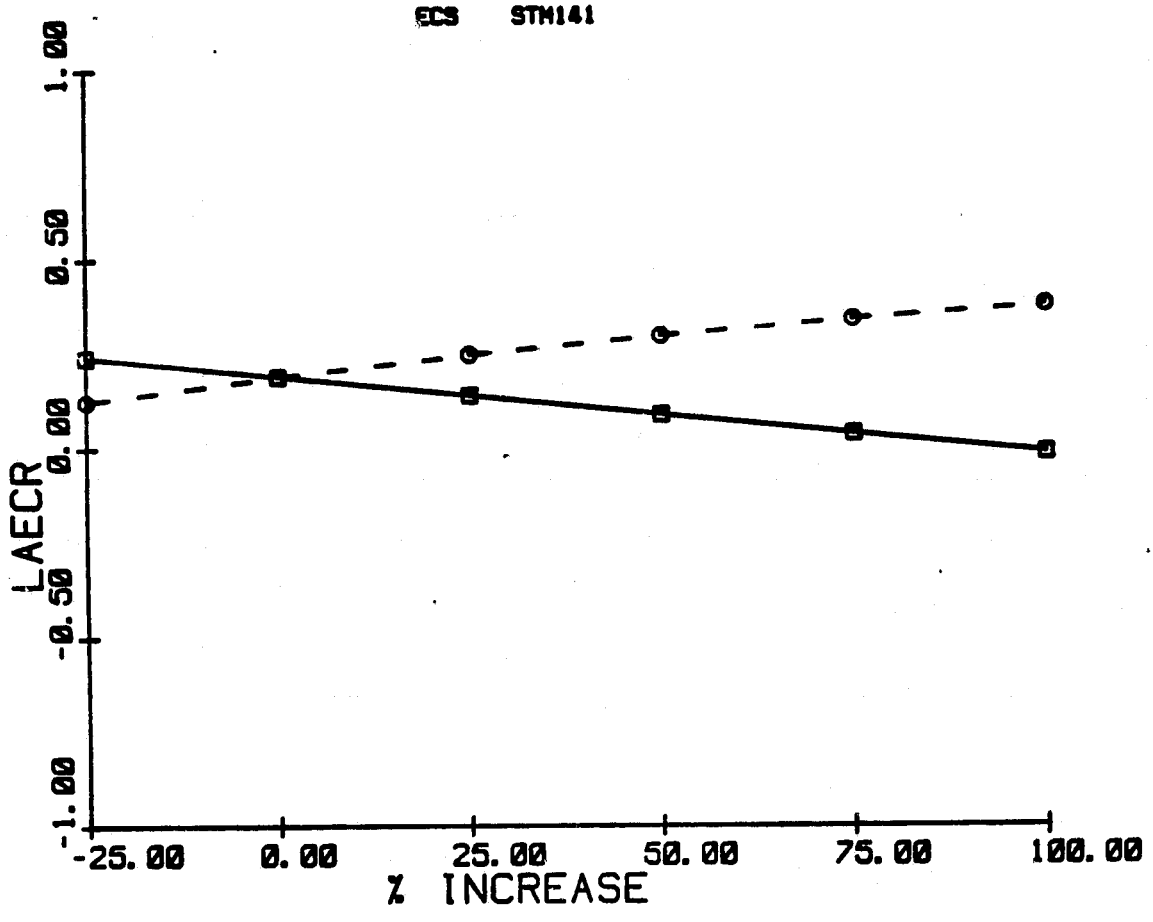
PROCESS 20112

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 52		CAPITAL COST- 90.4
PROCESS HEAT- 1333	CAPITAL COST- 77.5	LAEC -47.647
(BTU*10**6)	LAEC -58.784	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -52
(BTU*10**6)		FUEL -COAL-FGD
POWER/HEAT- 0.133		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

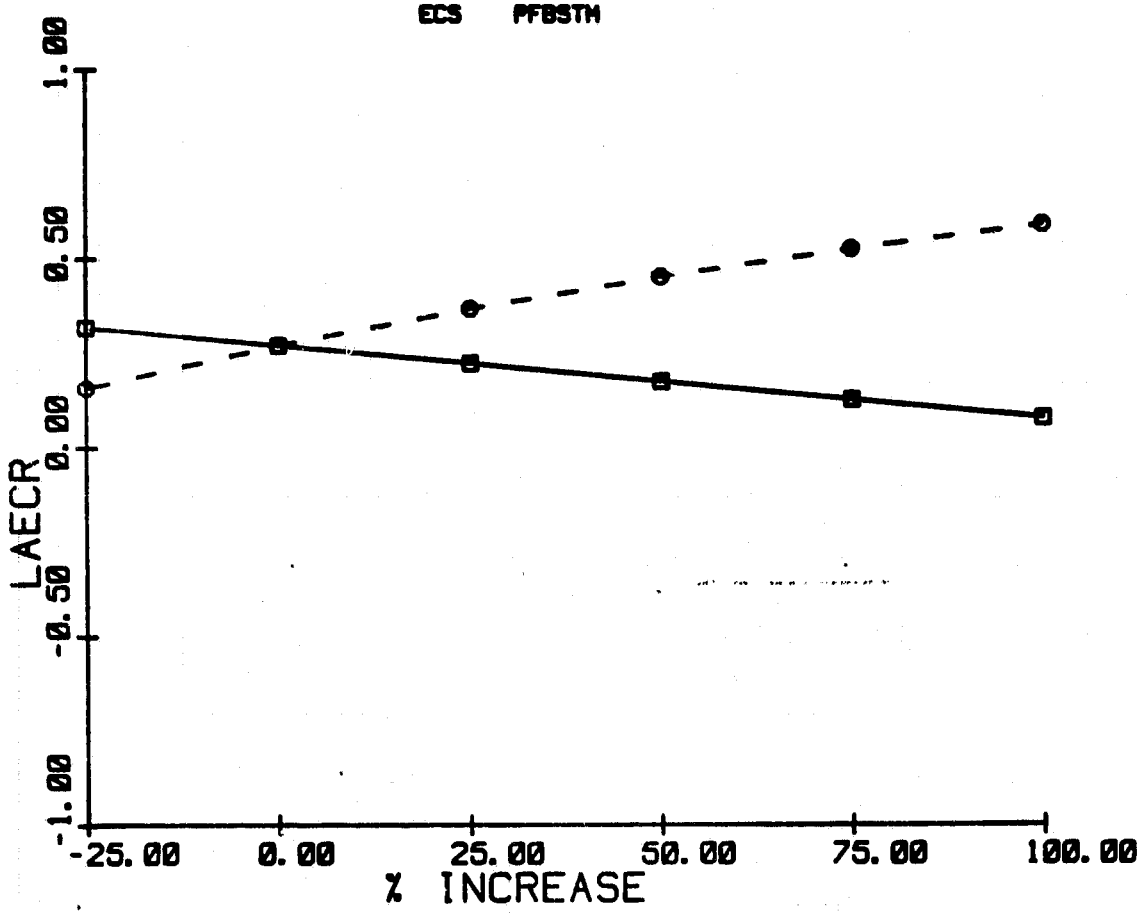
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20112

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 52		CAPITAL COST- 84.8
PROCESS HEAT- 1333	CAPITAL COST- 77.5	LAEC - 42.986
(BTU*10**6)	LAEC - 58.764	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 100
(BTU*10**6)		FUEL - COAL-PFB
POWER/HEAT- 0.133		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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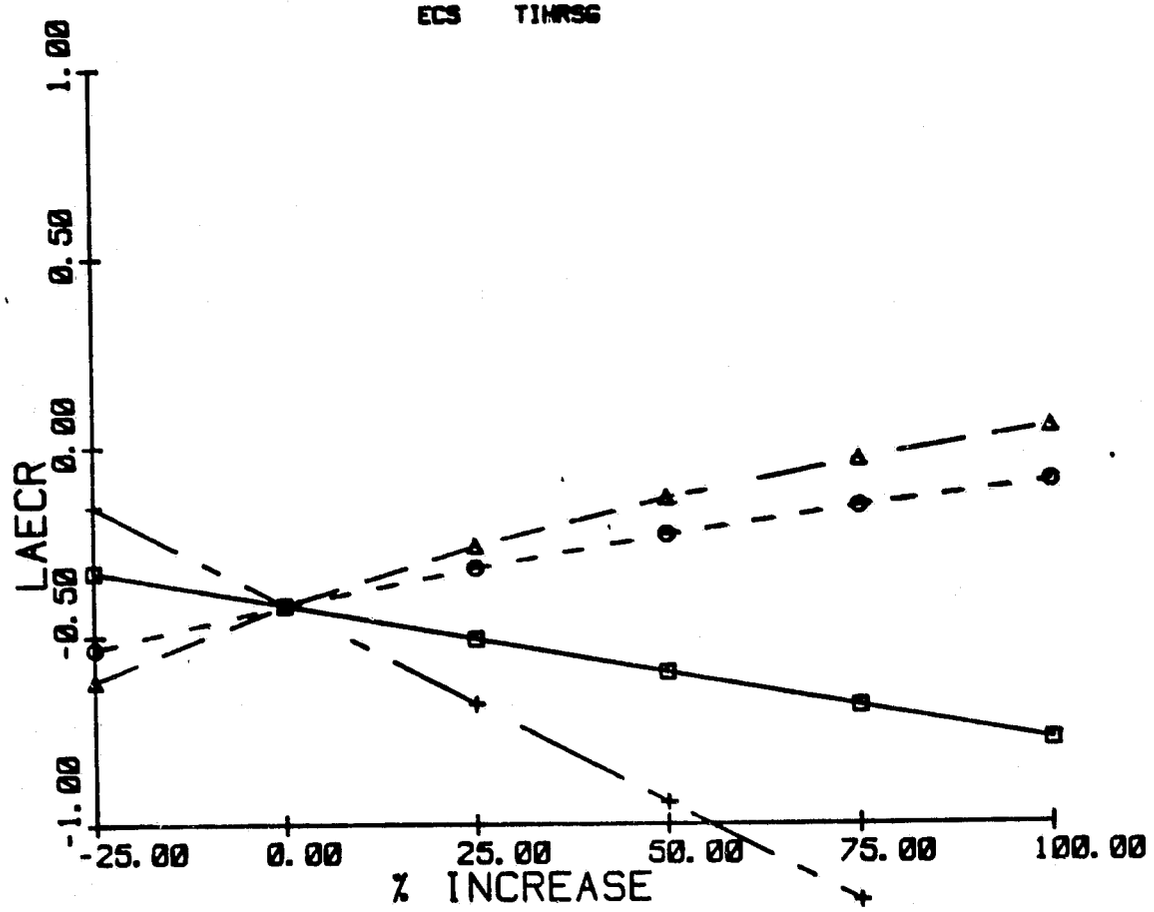
SENSITIVITY STUDY

PROCESS 20112

ECS TIMRSG



BASE CASE

PROCESS

MW- 52

PROCESS HEAT- 1333

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.133

NO COGENERATION

CAPITAL COST- 77.5

LAEC - 58.784

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 168.6

LAEC - 63.436

ROI - 0

MW(GEN) - 52

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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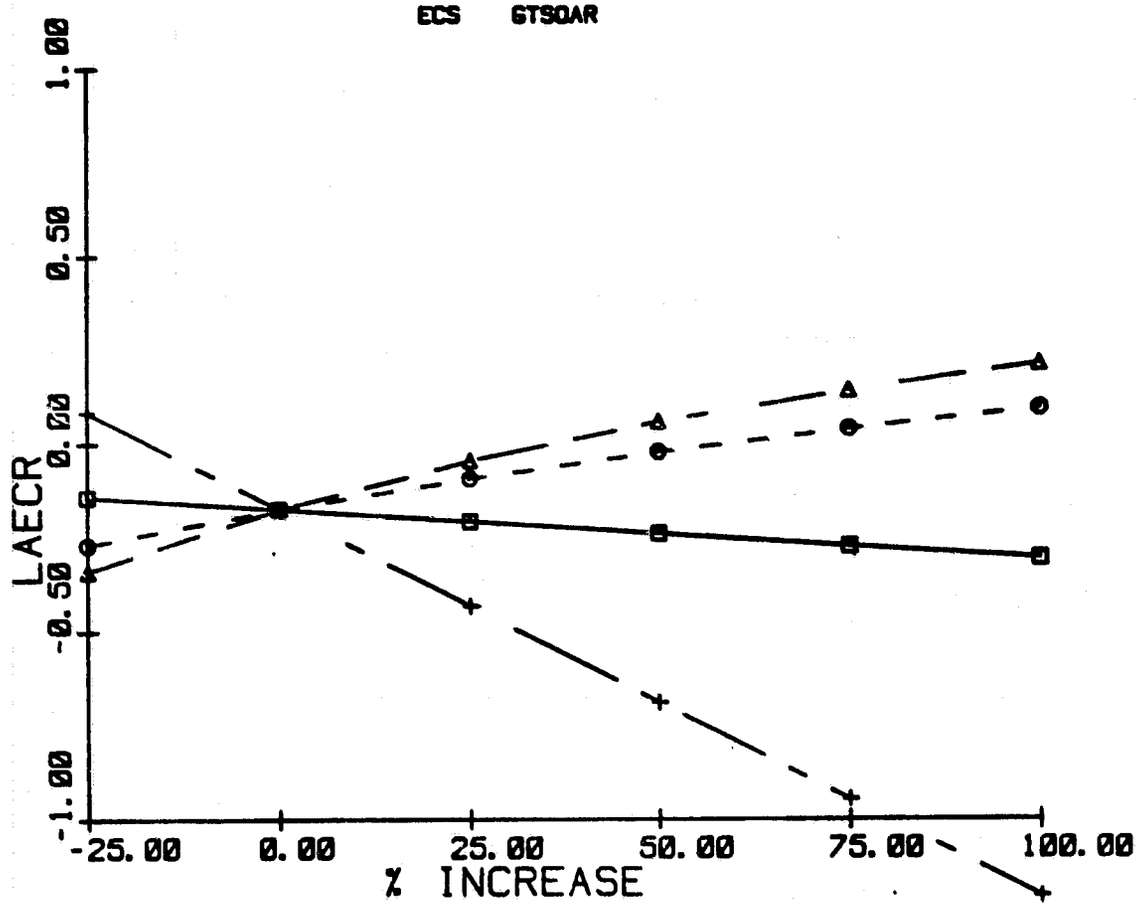
SENSITIVITY STUDY

PROCESS 20112

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 52		CAPITAL COST- 58.3
PROCESS HEAT- 1333	CAPITAL COST- 77.5	LAEC -69.054
(BTU*10**6)	LAEC -58.764	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -52
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.133		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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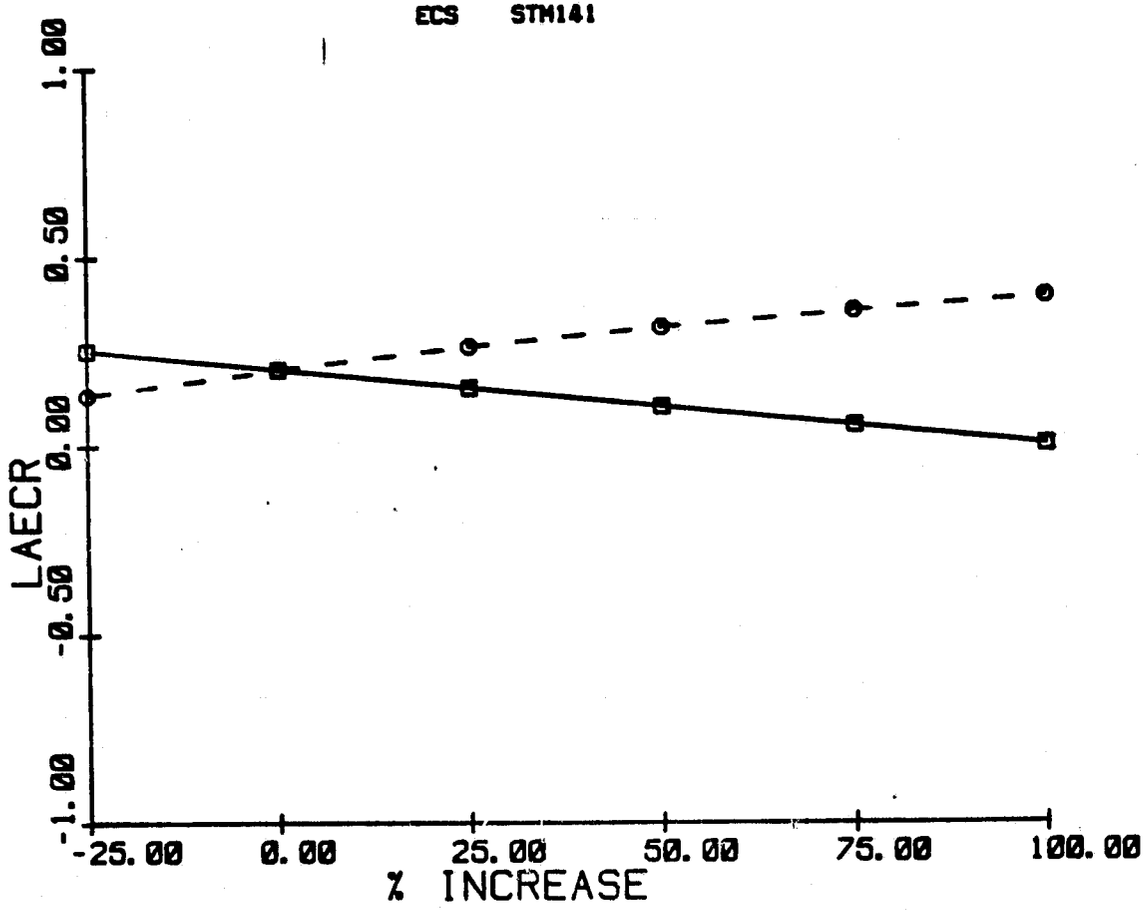
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20113

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 126		CAPITAL COST- 202.1
PROCESS HEAT- 3042	CAPITAL COST- 107.6	LAEC -107.283
(BTU*10**6)	LAEC -134.541	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -126
(BTU*10**6)		FUEL -COAL-FGD
POWER/HEAT- 0.141		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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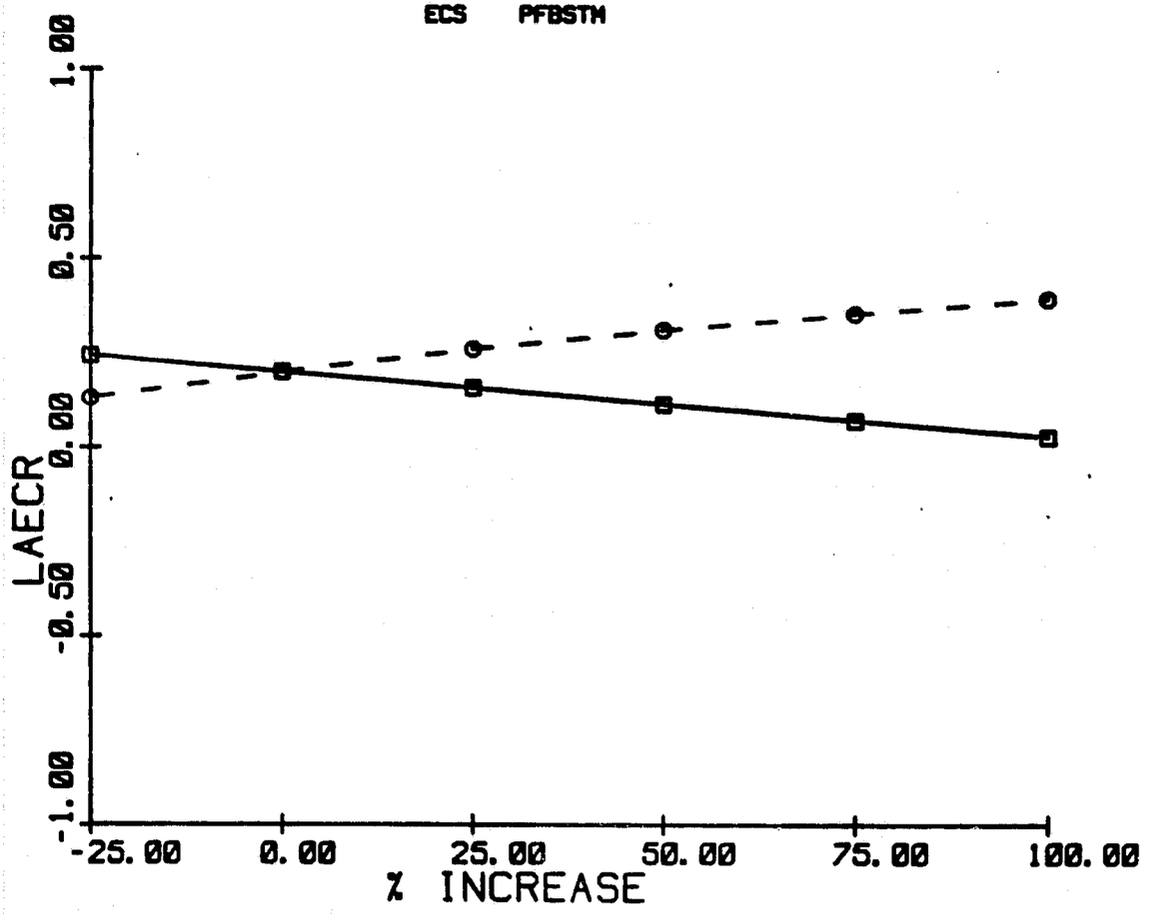
SENSITIVITY STUDY

PROCESS 20113

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 126		CAPITAL COST- 174.4
PROCESS HEAT- 3042	CAPITAL COST- 167.8	LAEC -107.747
(BTU*10**6)	LAEC -134.541	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -126
(BTU*10**6)		FUEL -COAL-PFB
POWER/HEAT- 0.141		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

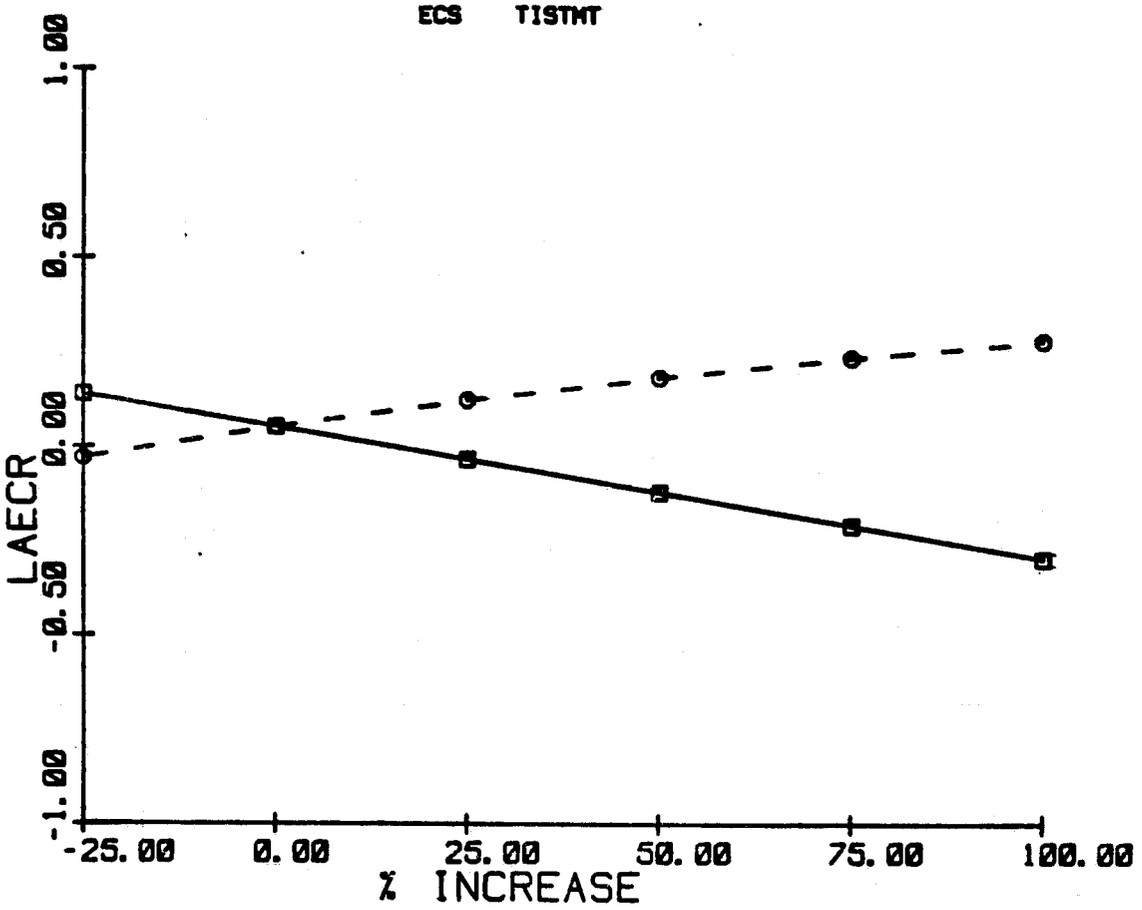
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 29113

ECS TISTMT



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 126		CAPITAL COST- 352.7
PROCESS HEAT- 3042	CAPITAL COST- 167.8	LAEC - 127.553
(BTU*10**6)	LAEC - 134.541	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 126
(BTU*10**6)		FUEL - COAL
POWER/HEAT- 0.141		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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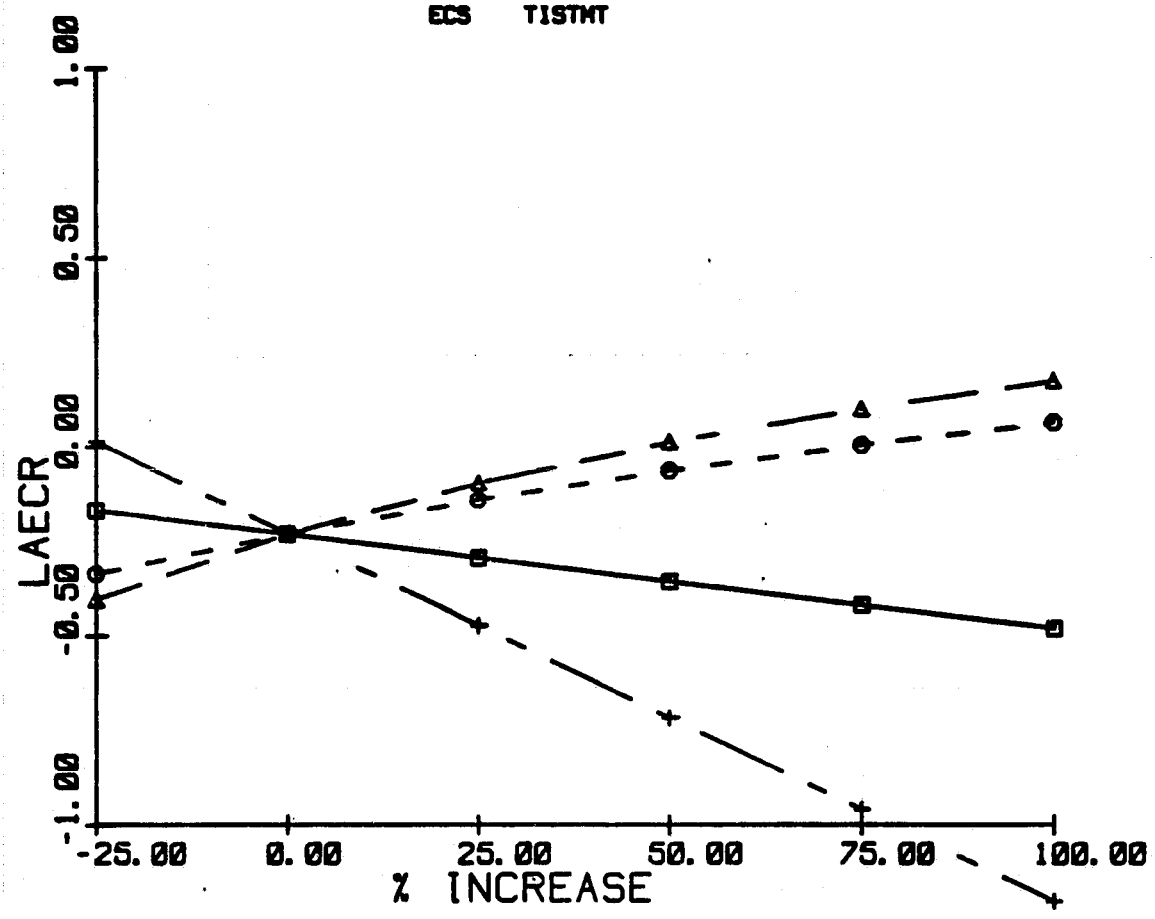
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20113

ECS TISTMT



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 126		CAPITAL COST- 251.8
PROCESS HEAT- 3042	CAPITAL COST- 167.8	LAEC - 165.588
(BTU*10**6)	LAEC - 134.541	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 126
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.141		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

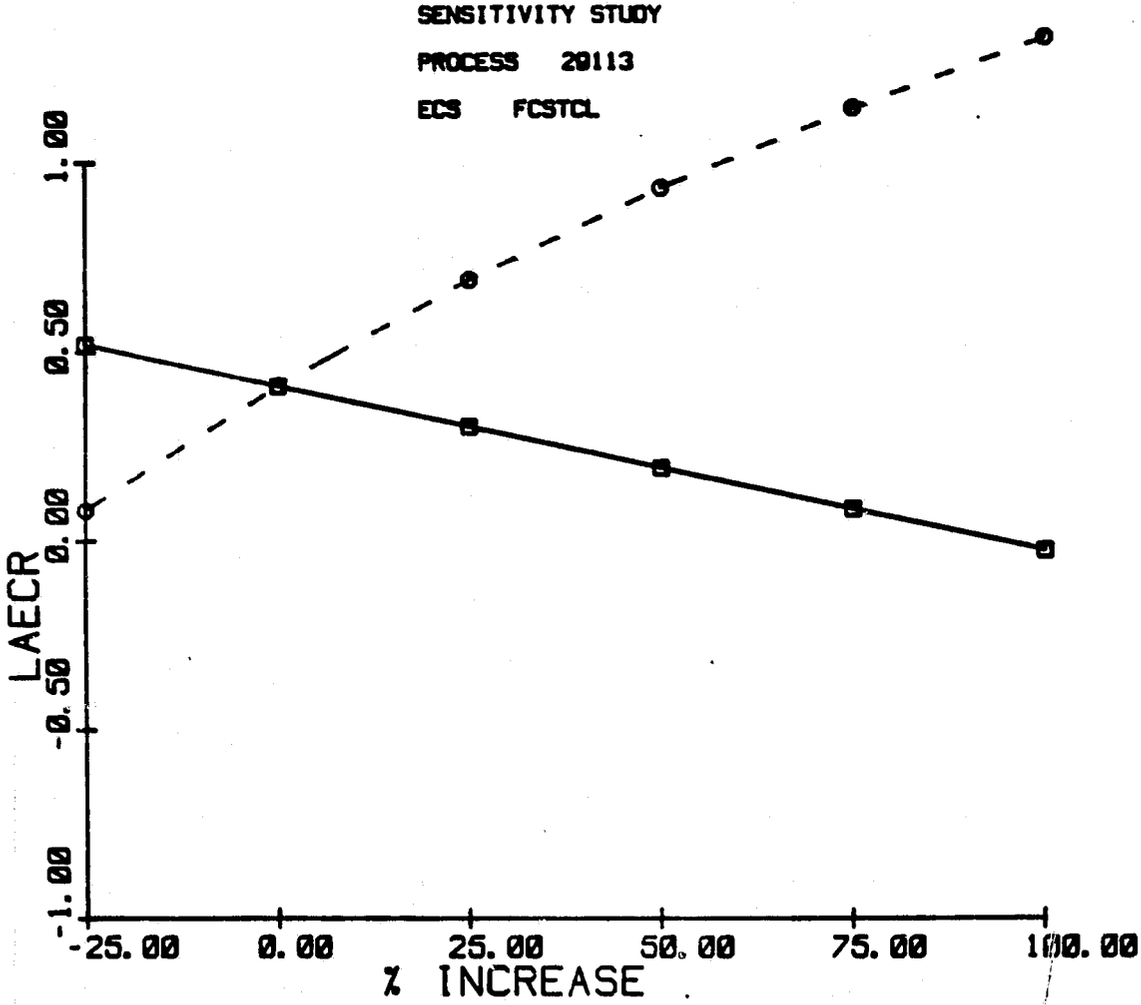
DATE 04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20113

ECS FCSTCL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 126		CAPITAL COST- 438.9
PROCESS HEAT- 3042	CAPITAL COST- 167.8	LAEC -79.444
(BTU*10**6)	LAEC -134.541	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -500
(BTU*10**6)		FUEL -COAL
POWER/HEAT- 0.141		

——— CAPITAL COST

— — — — ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

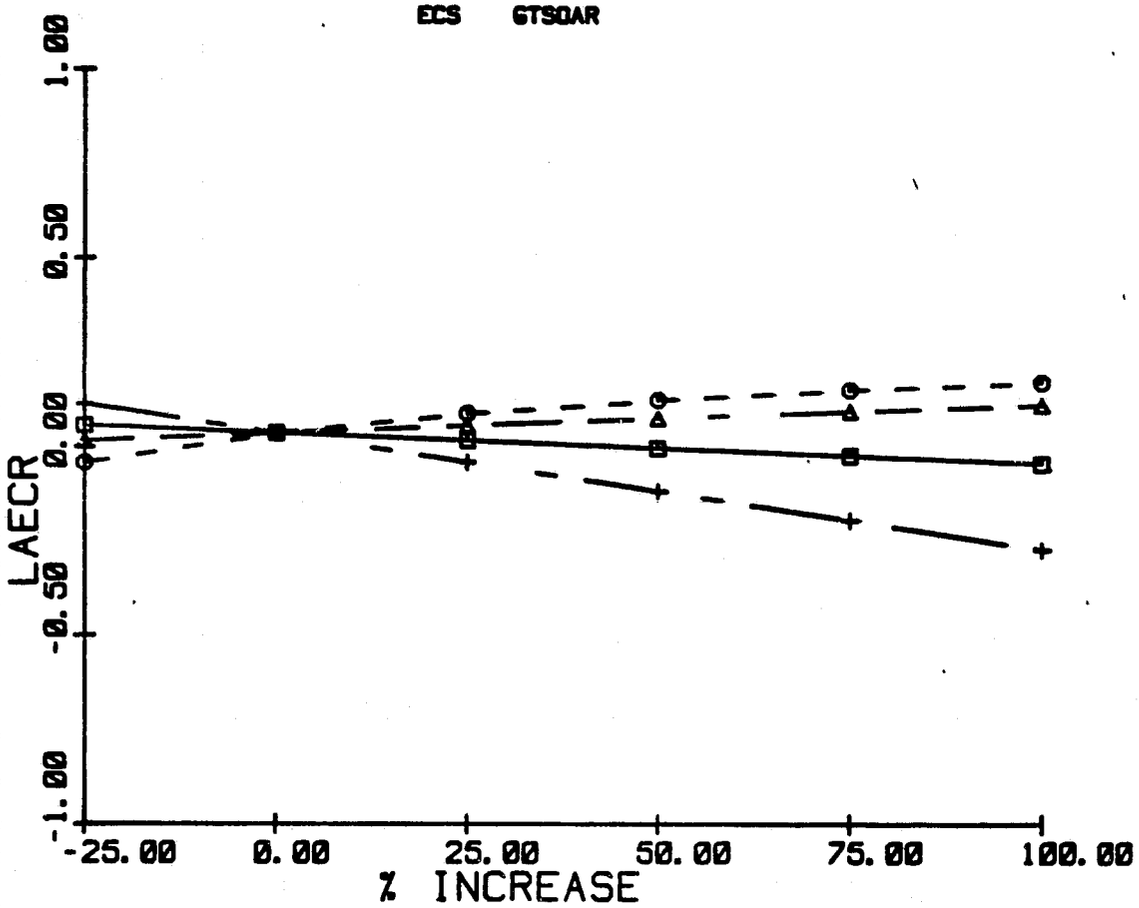
DATE 04/11/78

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33121

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 60			CAPITAL COST- 11.4	
PROCESS HEAT- 93	CAPITAL COST- 7.4		LAEC	- 17.810
(BTU*10**6)	LAEC	- 16.473	ROI	- 0
WASTE FUEL- 0	FUEL	- COAL-AFB	MW(GEN)	- 20
(BTU*10**6)			FUEL	- RESIDUAL
POWER/HEAT- 2.201				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

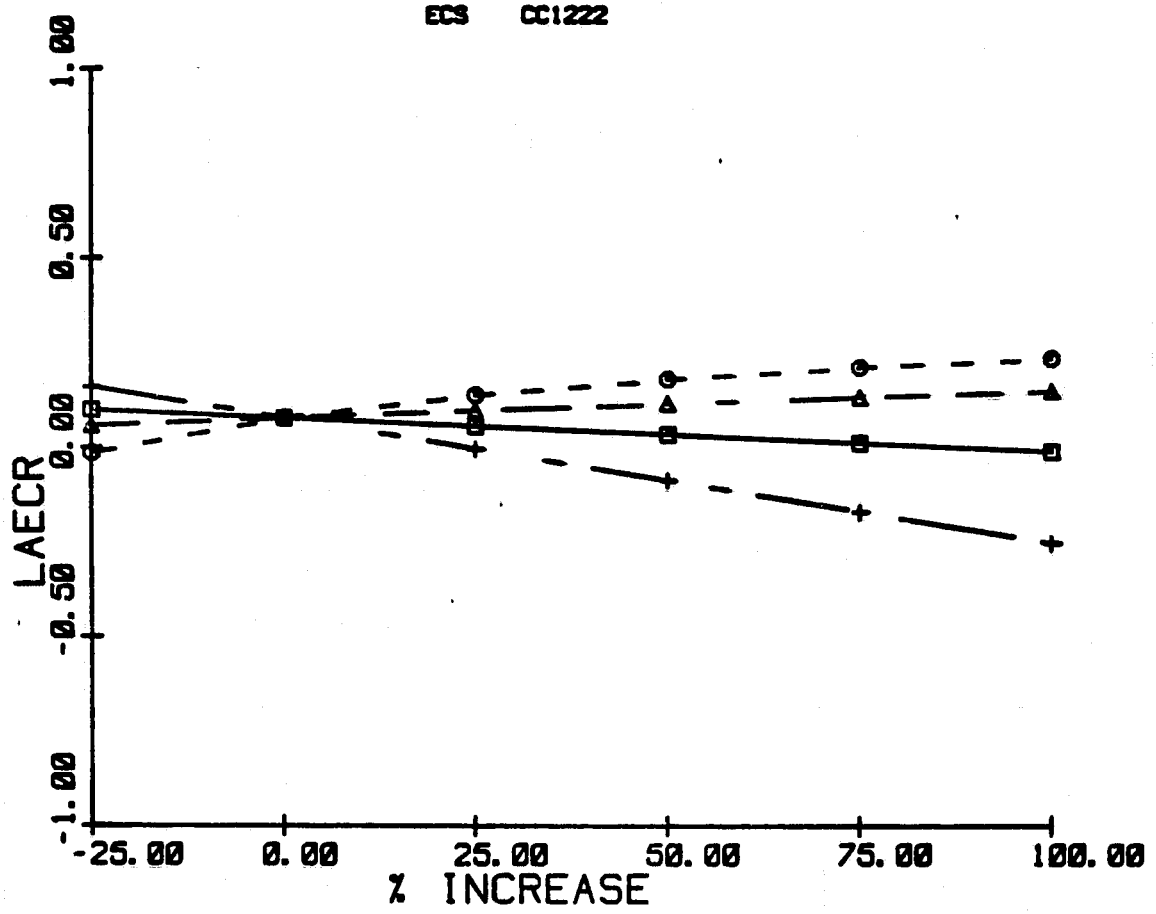
GENERAL ELECTRIC COMPANY

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33121

ECS CC1222



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 80		CAPITAL COST- 12.2
PROCESS HEAT- 93	CAPITAL COST- 7.4	LAEC - 17.053
(BTU*10**6)	LAEC - 16.473	ROI - 0
WASTE FUEL- 0	FUEL - COAL-AFB	MW(GEN) - 25
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 2.201		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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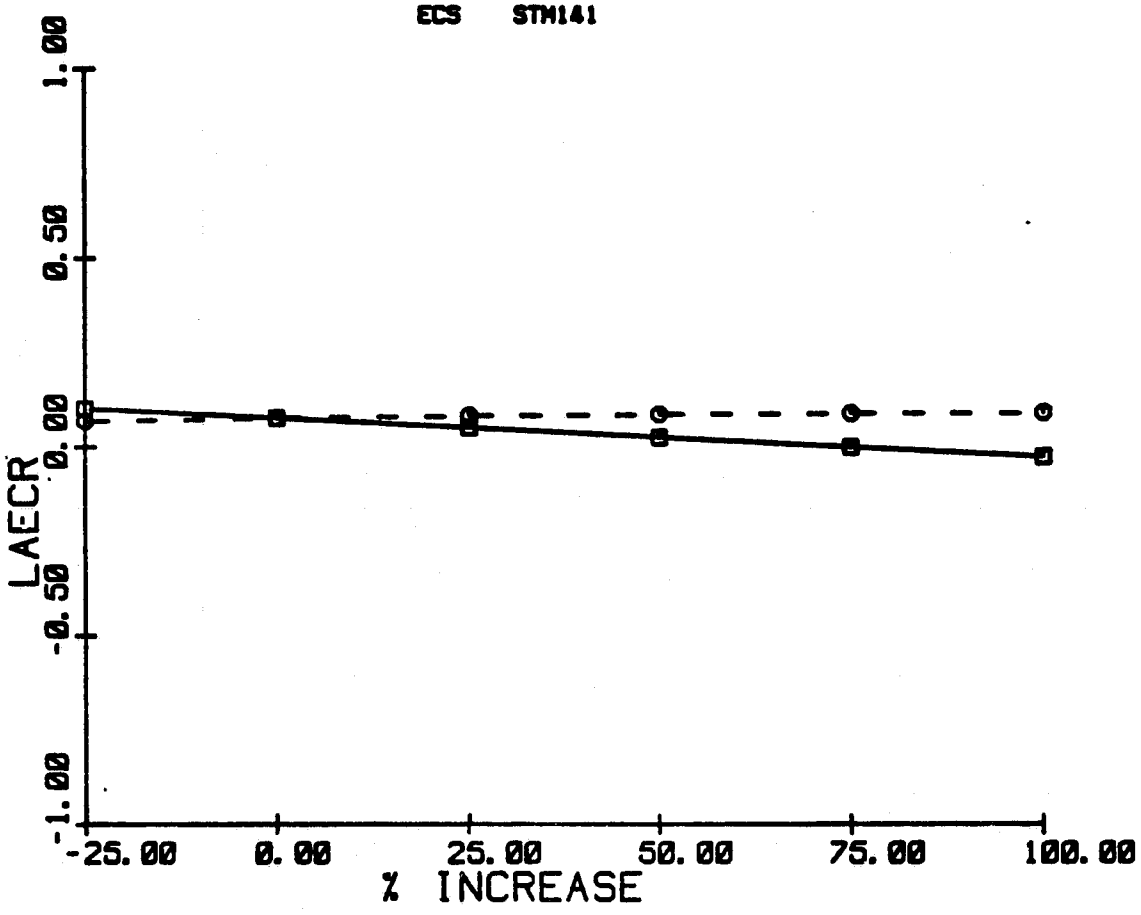
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33251

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 200		CAPITAL COST-62.1
PROCESS HEAT-912	CAPITAL COST-53.1	LAEC -74.426
(BTU*10**6)	LAEC -68.595	ROI -0
WASTE FUEL- 1192	FUEL -COAL-FGD	MW(GEN) -30
(BTU*10**6)		FUEL -COAL-FGD
POWER/HEAT- 1.040		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

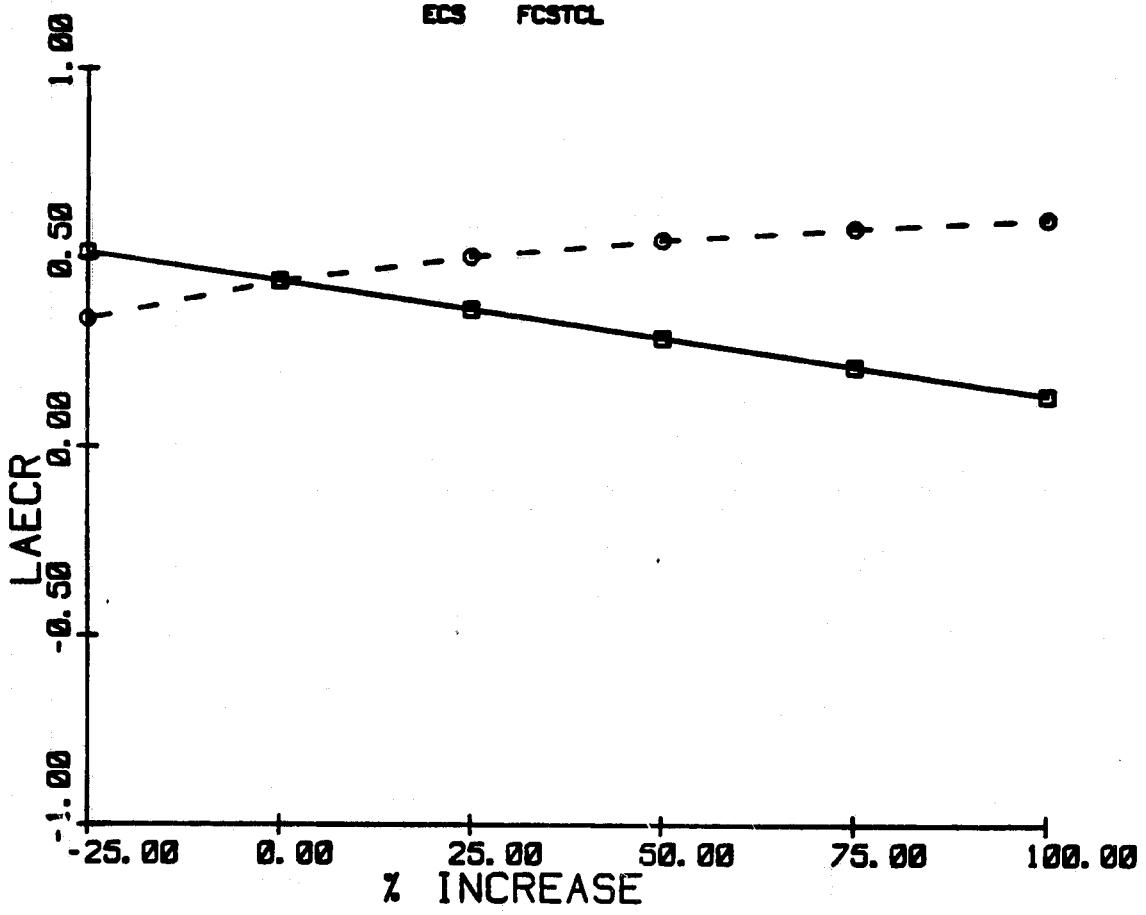
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33251

ECS FCSTCL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 200		CAPITAL COST- 179.1
PROCESS HEAT- 912	CAPITAL COST- 53.1	LAEC -45.310
(BTU*10**6)	LAEC -68.585	ROI -0
WASTE FUEL- 2118	FUEL -COAL-FGD	MW(GEN) -220
(BTU*10**6)		FUEL -COAL
POWER/HEAT- 1.048		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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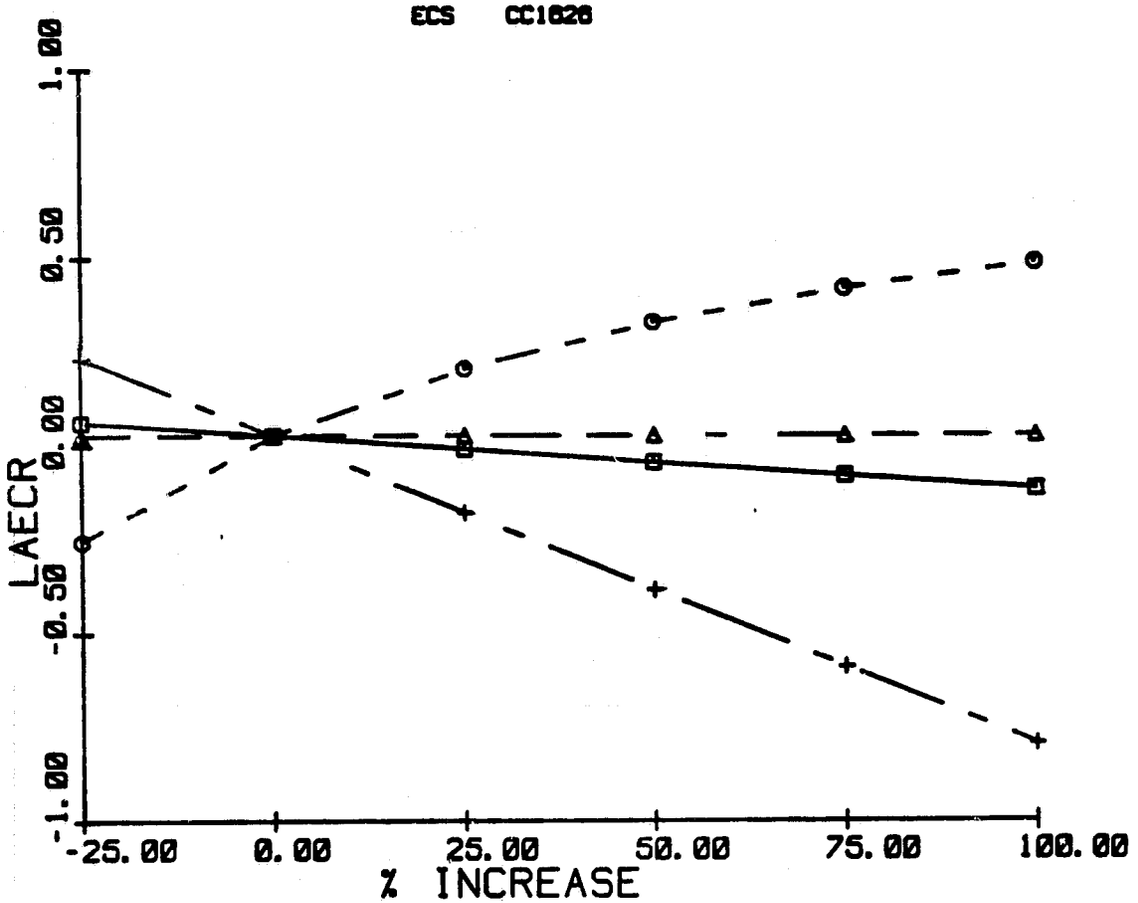
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33251

ECS CC1028



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 200		CAPITAL COST- 66.4
PROCESS HEAT- 912	CAPITAL COST- 53.1	LAEC -78.506
(BTU*10**6)	LAEC -68.595	ROI -0
WASTE FUEL- 4	FUEL -COAL-FGD	MW(GEN) -200
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.048		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

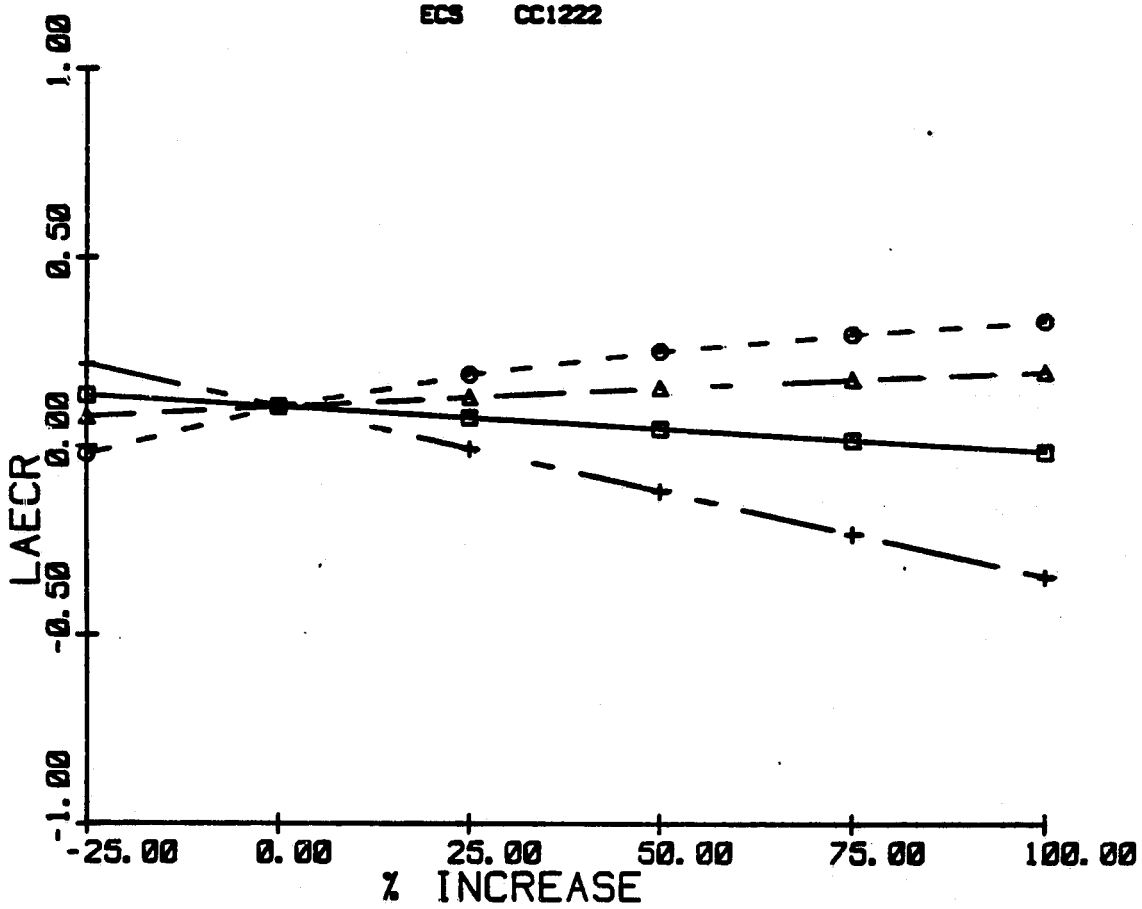
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33254

ECS CC1222



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 40		CAPITAL COST- 12.0
PROCESS HEAT- 91	CAPITAL COST- 7.3	LAEC - 11.675
(BTU*10**6)	LAEC - 13.265	ROI - 0
WASTE FUEL- 0	FUEL - COAL-AFB	MW(GEN) - 25
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 1.500		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

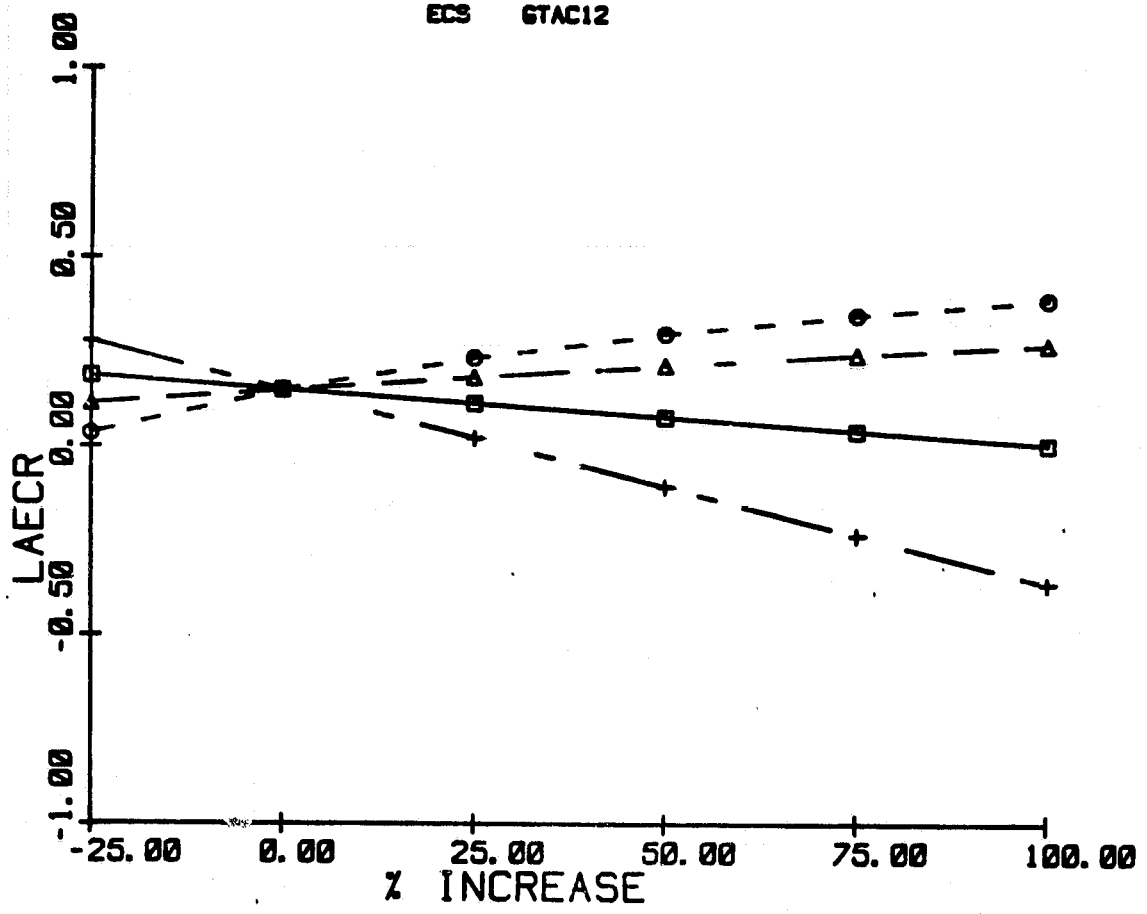
DATE 04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33314

ECS 6TAC12



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 10		CAPITAL COST- 5.2
PROCESS HEAT- 40	CAPITAL COST- 4.6	LAEC -3.963
(BTU*10**6)	LAEC -4.063	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -0
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 0.062		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

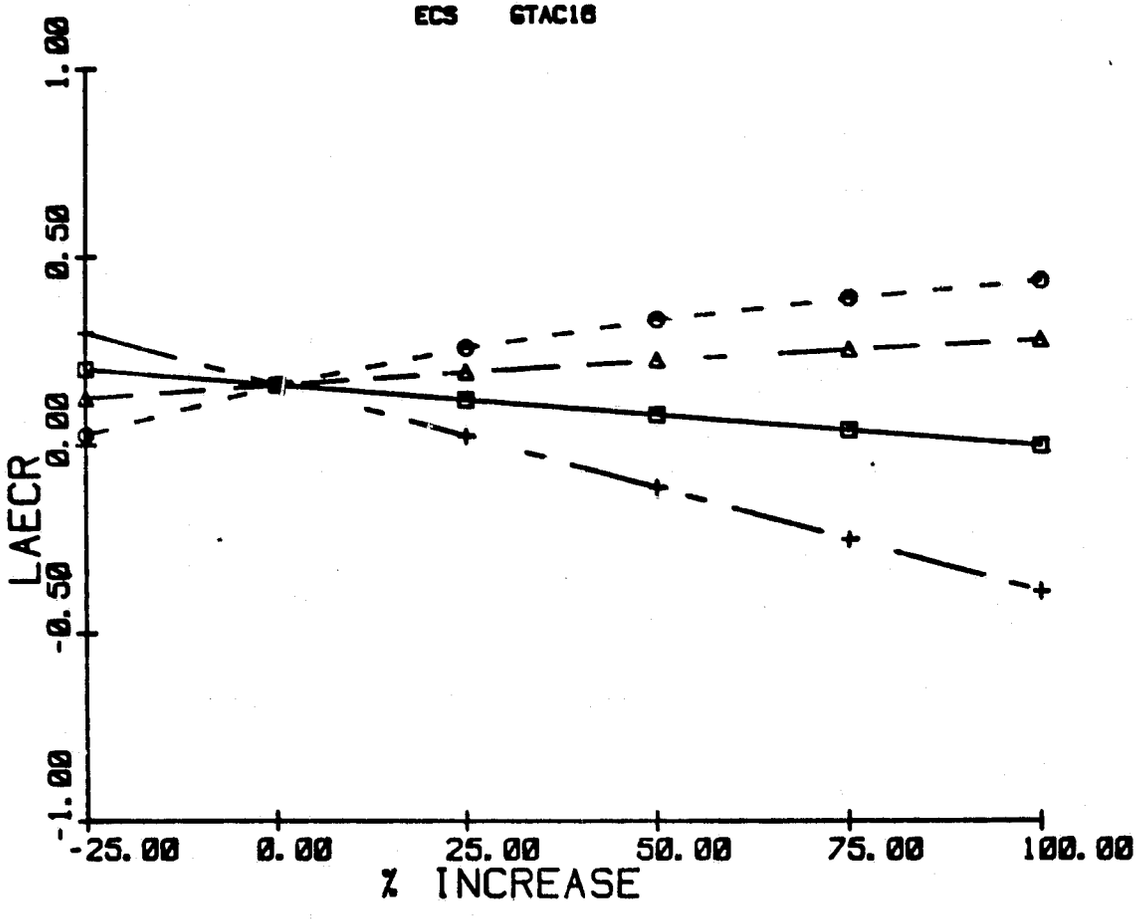
DATE 04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33314

ECS GTAC1B



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 10		CAPITAL COST- 5.8
PROCESS HEAT- 40	CAPITAL COST- 4.6	LAEC - 3.919
(BTU*10**6)	LAEC - 4.663	ROI - 0
WASTE FUEL- 0	FUEL - COAL-AFB	MW(GEN) - 0
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.662		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

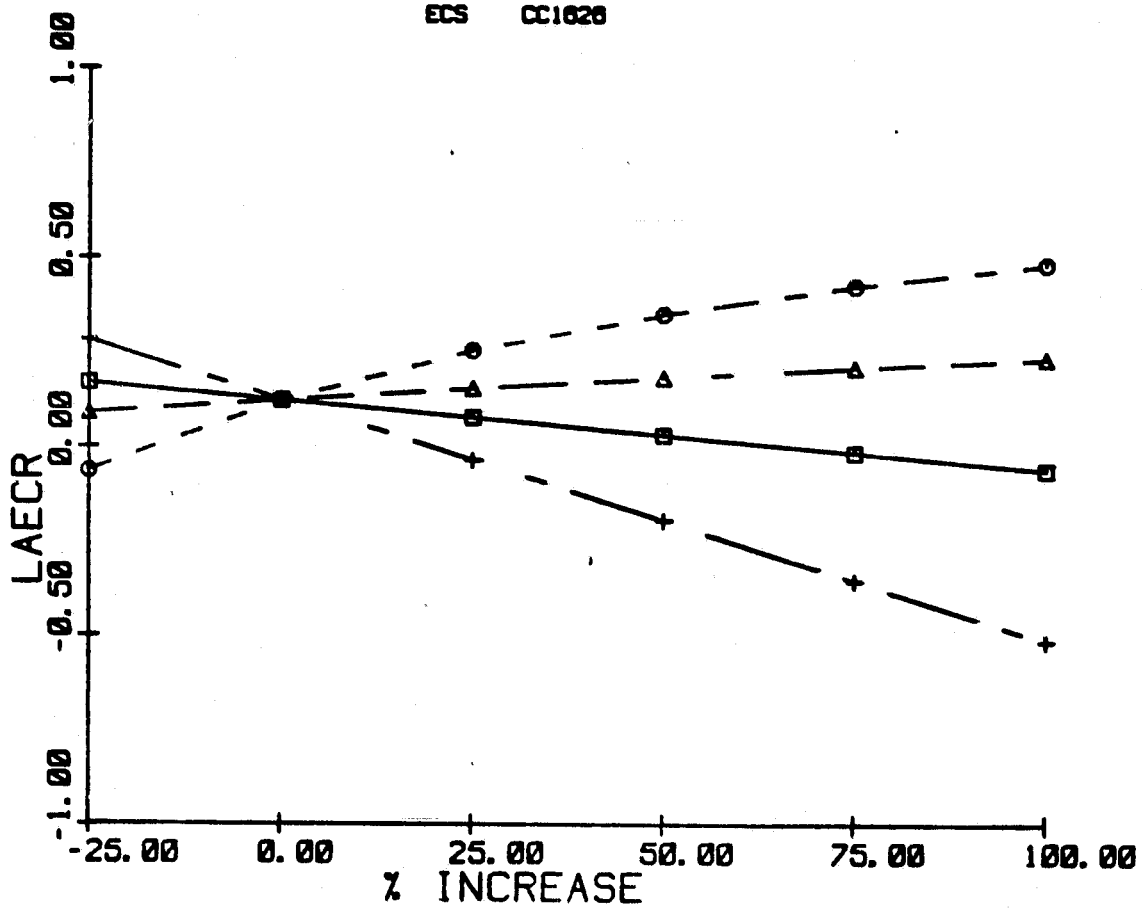
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33315

ECS CC1628



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 19		CAPITAL COST- 10.6
PROCESS HEAT- 60	CAPITAL COST- 5.7	LAEC -6.776
(BTU*10**6)	LAEC -7.723	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -19
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.052		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

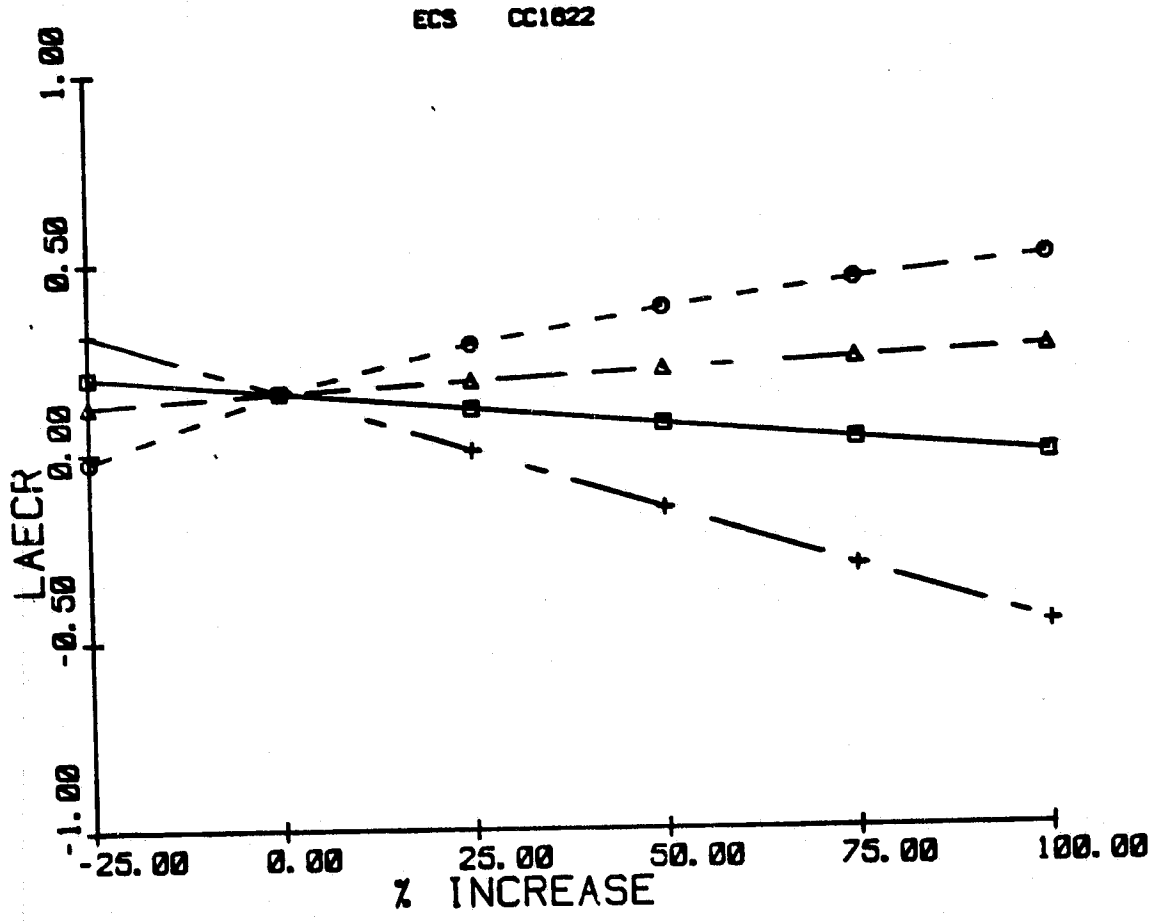
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33315

ECS CC1622



BASE CASE

NO COGENERATION

CAPITAL COST- 5.7

LAEC -7.723

FUEL -COAL-AFB

PROCESS

MW- 19

PROCESS HEAT- 60

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 1.052

COGENERATION

CAPITAL COST- 10.1

LAEC -6.519

ROI -0

MW(GEN) -19

FUEL -RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

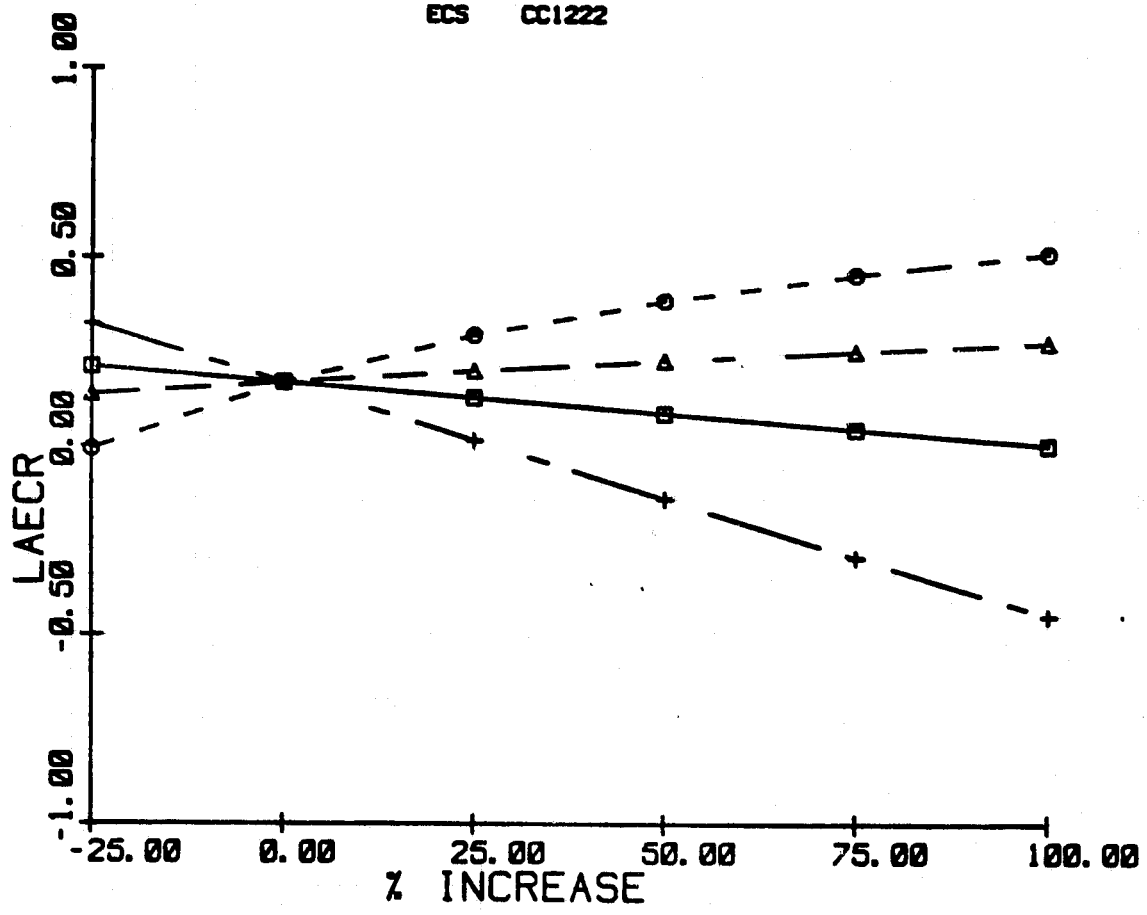
DATE=04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33315

ECS CC1222



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 19		CAPITAL COST-9.6
PROCESS HEAT-60	CAPITAL COST-5.7	LAEC -6.419
(BTU*10**6)	LAEC -7.723	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -19
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.052		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

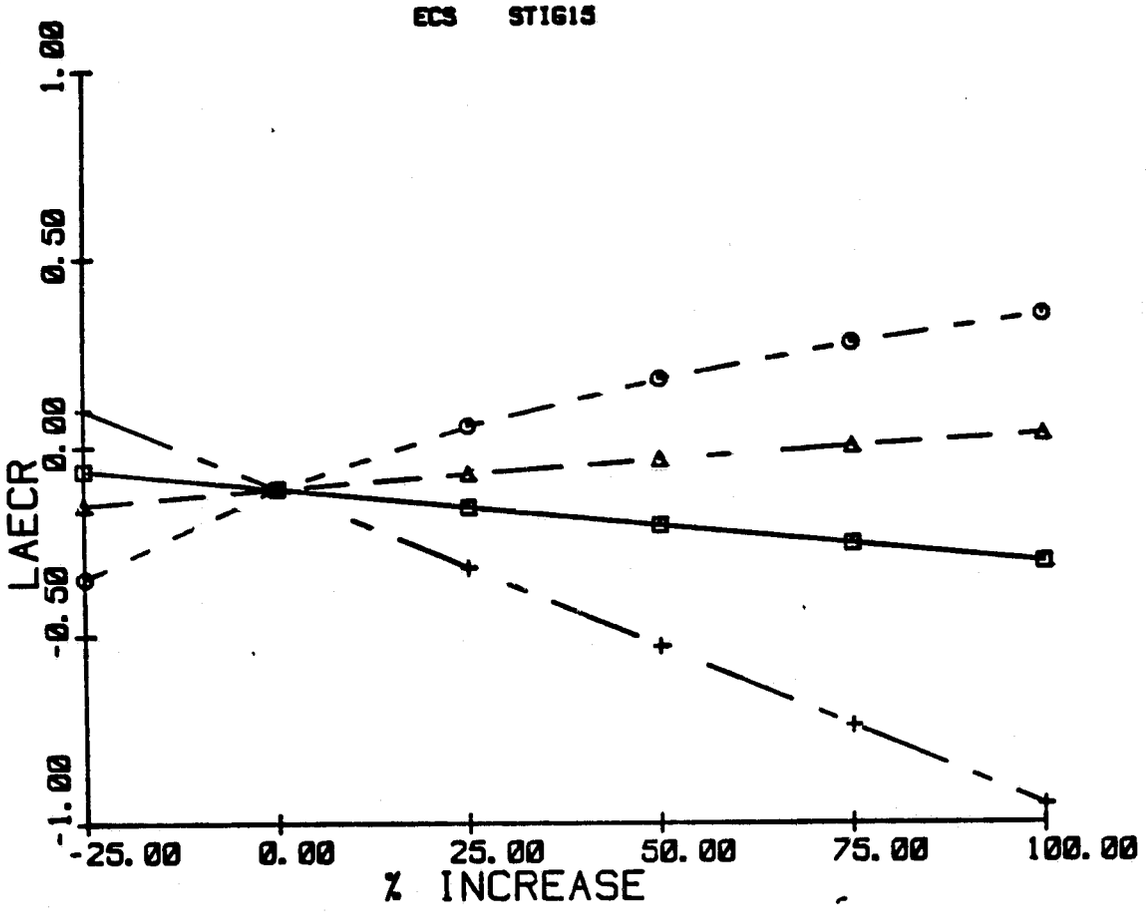
DATE84/11/30

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33315

ECS STIG15



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 19		CAPITAL COST- 11.6
PROCESS HEAT- 88	CAPITAL COST- 5.7	LAEC -8.585
(BTU*10**6)	LAEC -7.723	ROI -0
WASTE FUEL- 0	FUEL -COAL-AFB	MW(GEN) -19
(BTU*10**6)		FUEL -RESIDUAL
POWER/HEAT- 1.052		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

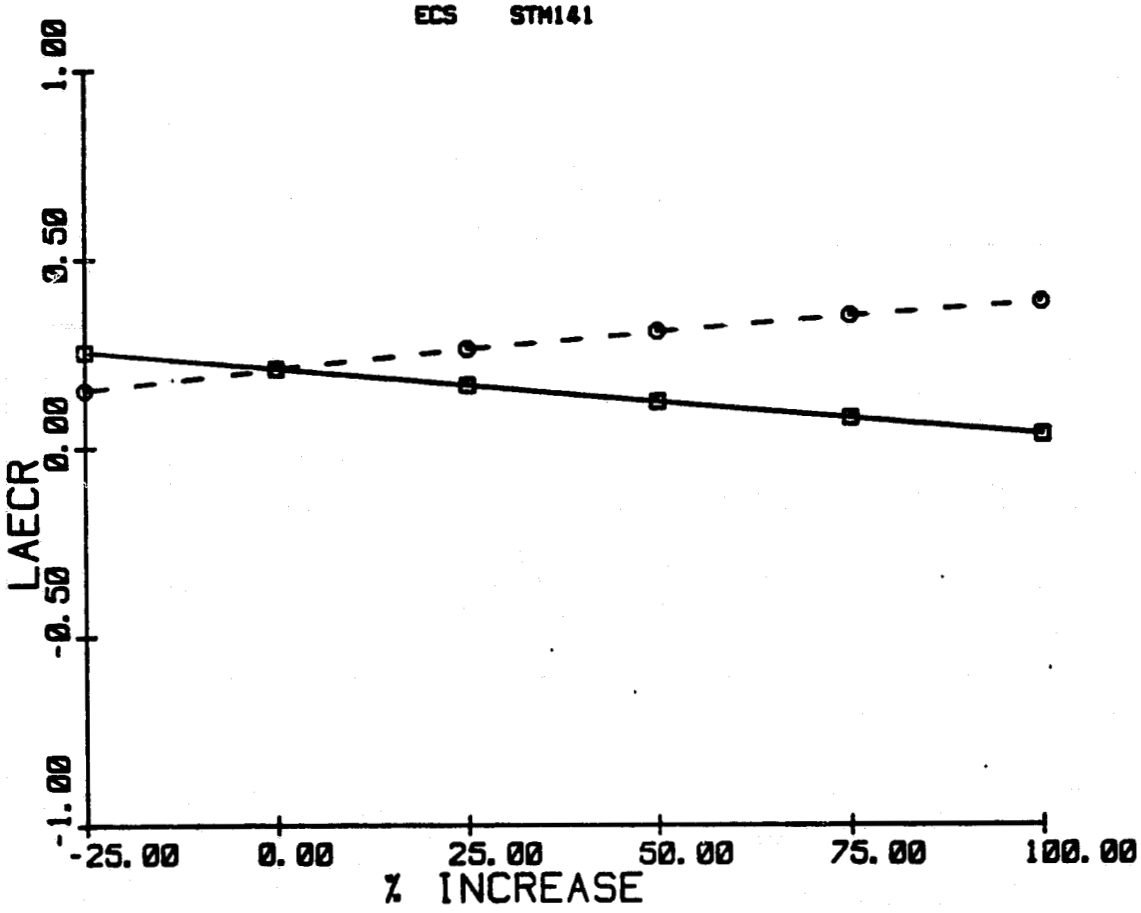
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33344

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 30		CAPITAL COST- 50.7
PROCESS HEAT- 900	CAPITAL COST- 55.7	LAEC -30.196
(BTU*10**6)	LAEC -30.211	ROI -0
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -35
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.105		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

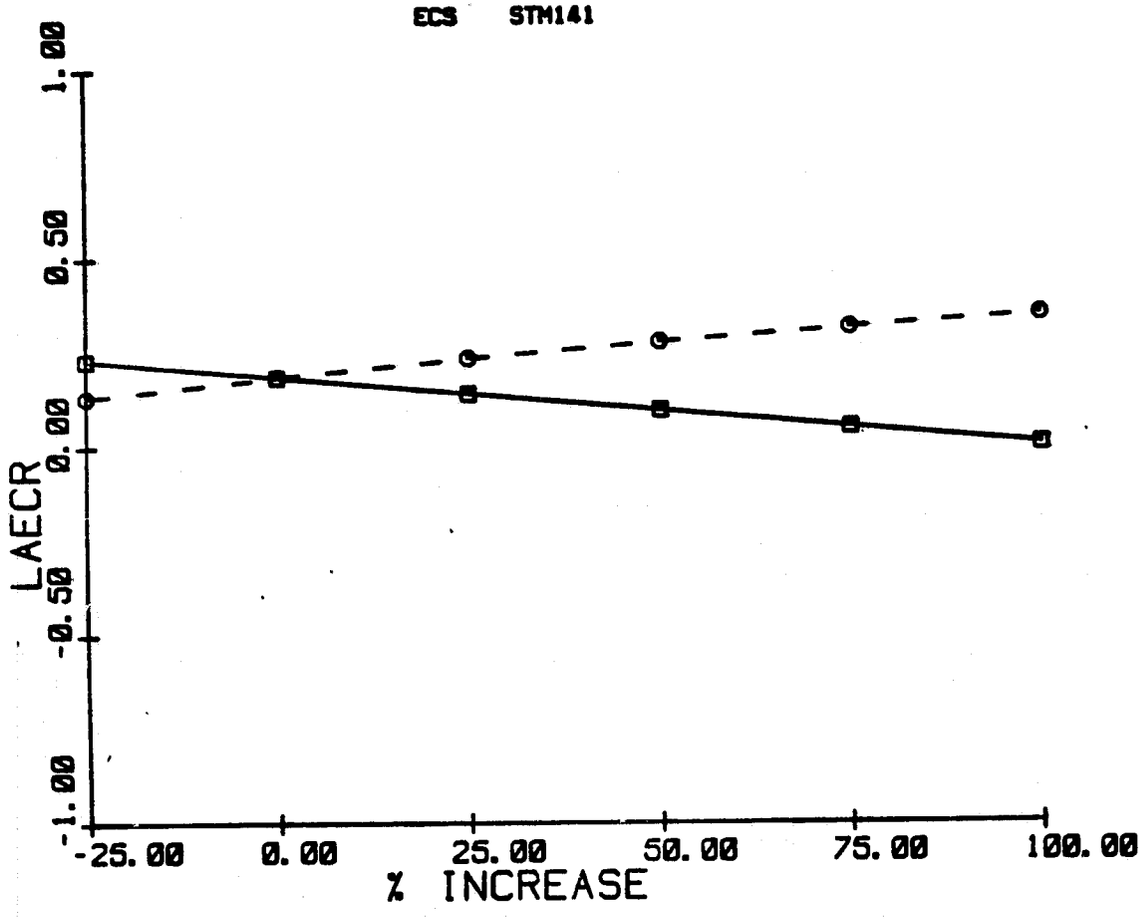
DATE04/11/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33344

ECS STM141



BASE CASE

PROCESS

MW- 30

PROCESS HEAT- 980

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.105

NO COGENERATION

CAPITAL COST- 55.7

LAEC - 38.211

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 51.6

LAEC - 31.152

ROI - 0

MW(GEN) - 30

FUEL - COAL-AFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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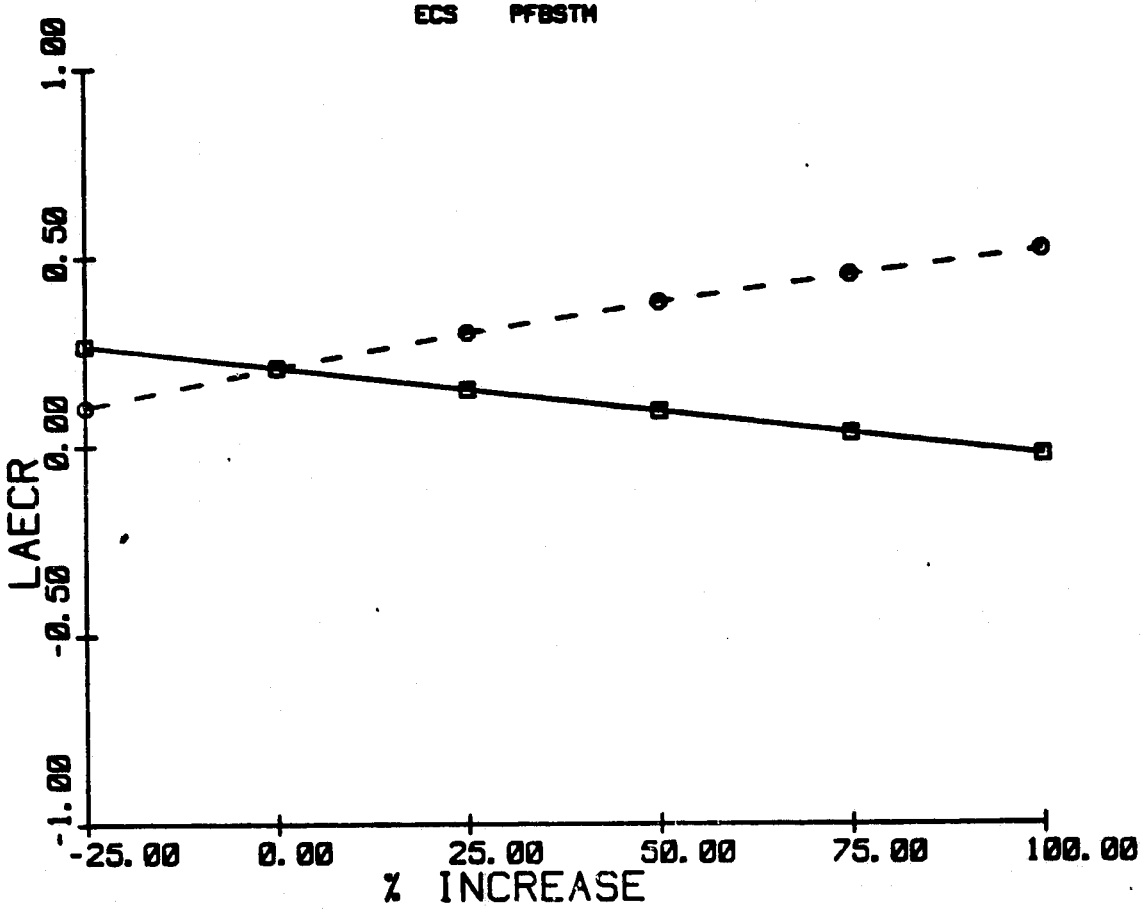
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 33344

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 30		CAPITAL COST- 65.7
PROCESS HEAT- 900	CAPITAL COST- 55.7	LAEC - 30.307
(BTU*10**6)	LAEC - 30.211	ROI - 0
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 70
(BTU*10**6)		FUEL - COAL-PFB
POWER/HEAT- 0.105		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

ROI SENSITIVITY CURVES

GENERAL ELECTRIC COMPANY

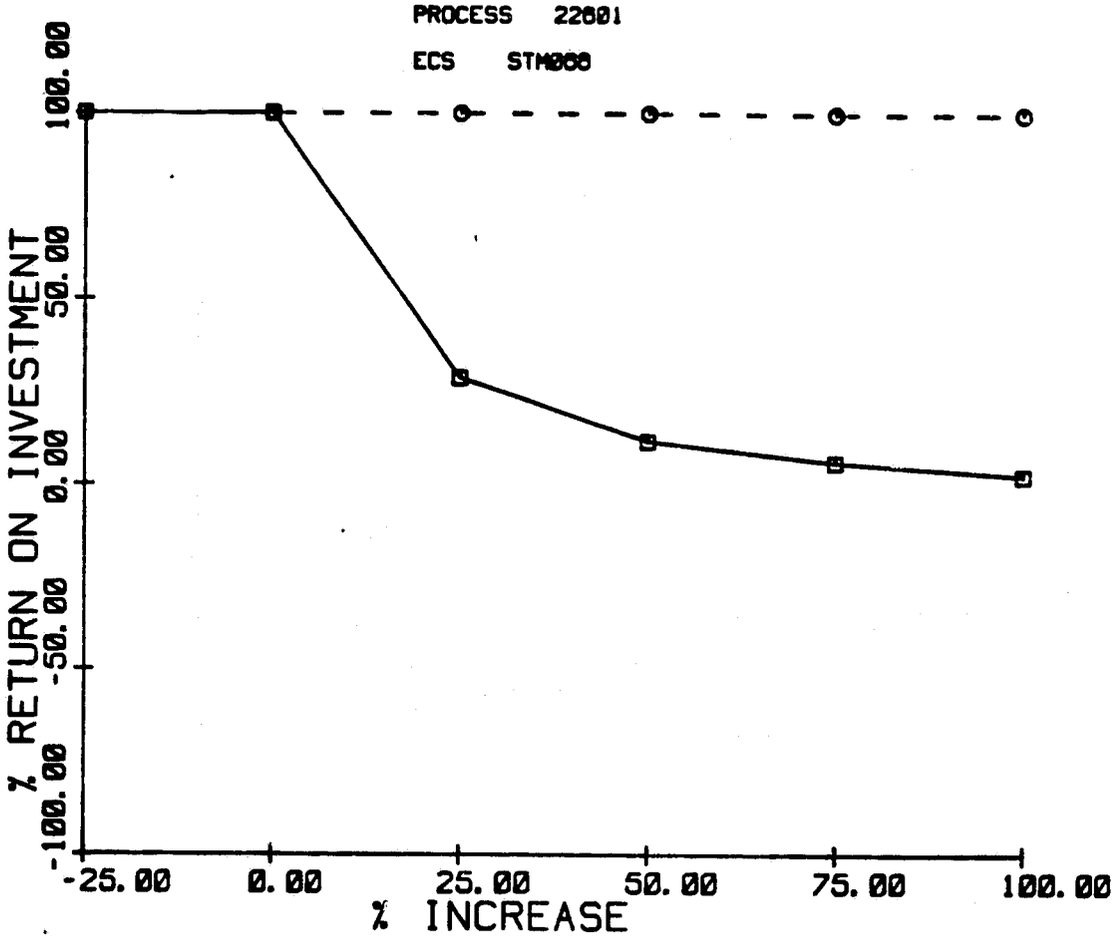
DATE04/16/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 22801

ECS STM000



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST- 12.4
PROCESS HEAT- 158	CAPITAL COST- 13.5	LAEC -4.954
(BTU*10**6)	LAEC -6.265	ROI -999
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -7
(BTU*10**6)		FUEL -COAL-AFB
POWER/HEAT- 0.134		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

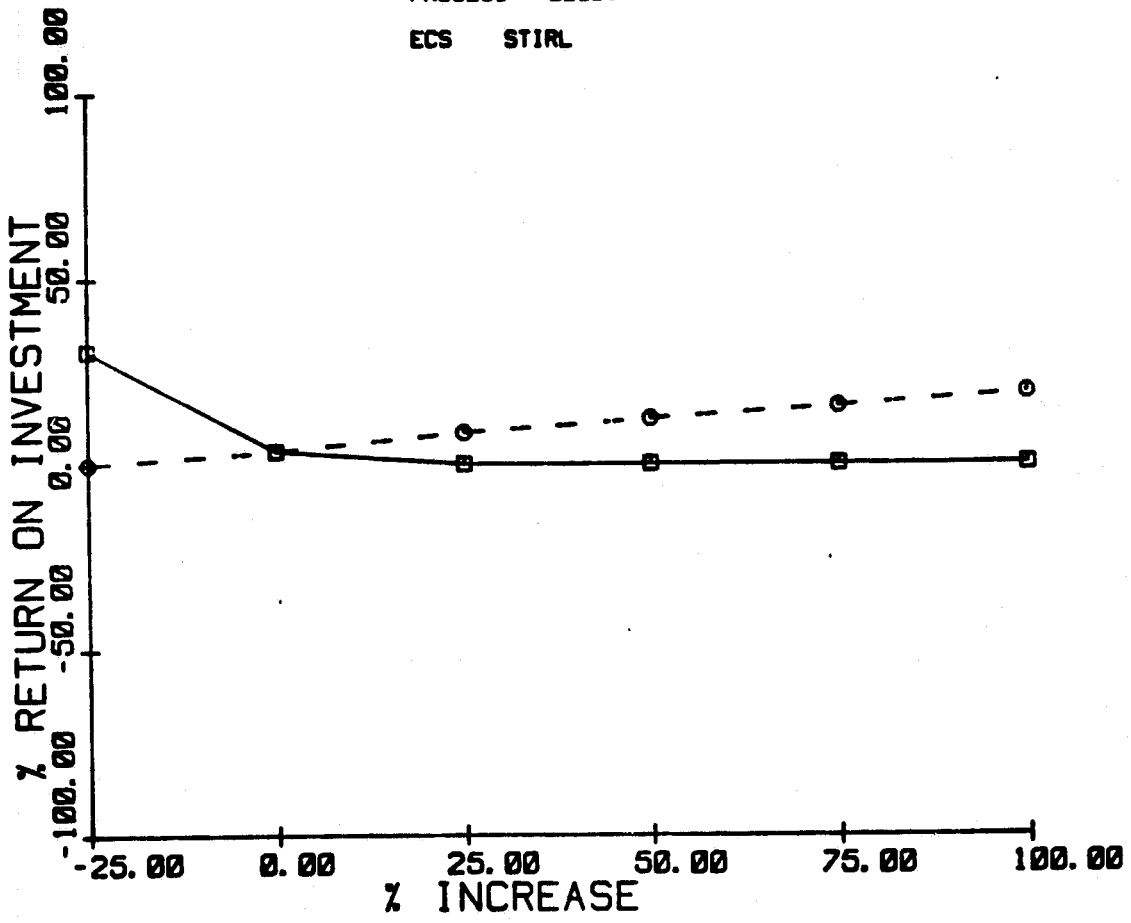
DATE04/16/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 22601

ECS STIRL



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 6		CAPITAL COST- 19.9
PROCESS HEAT- 158	CAPITAL COST- 13.5	LAEC -6.363
(BTU*10**6)	LAEC -6.285	ROI -3
WASTE FUEL- 0	FUEL -COAL-FGD	MW(GEN) -6
(BTU*10**6)		FUEL -COAL
POWER/HEAT- 0.134		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

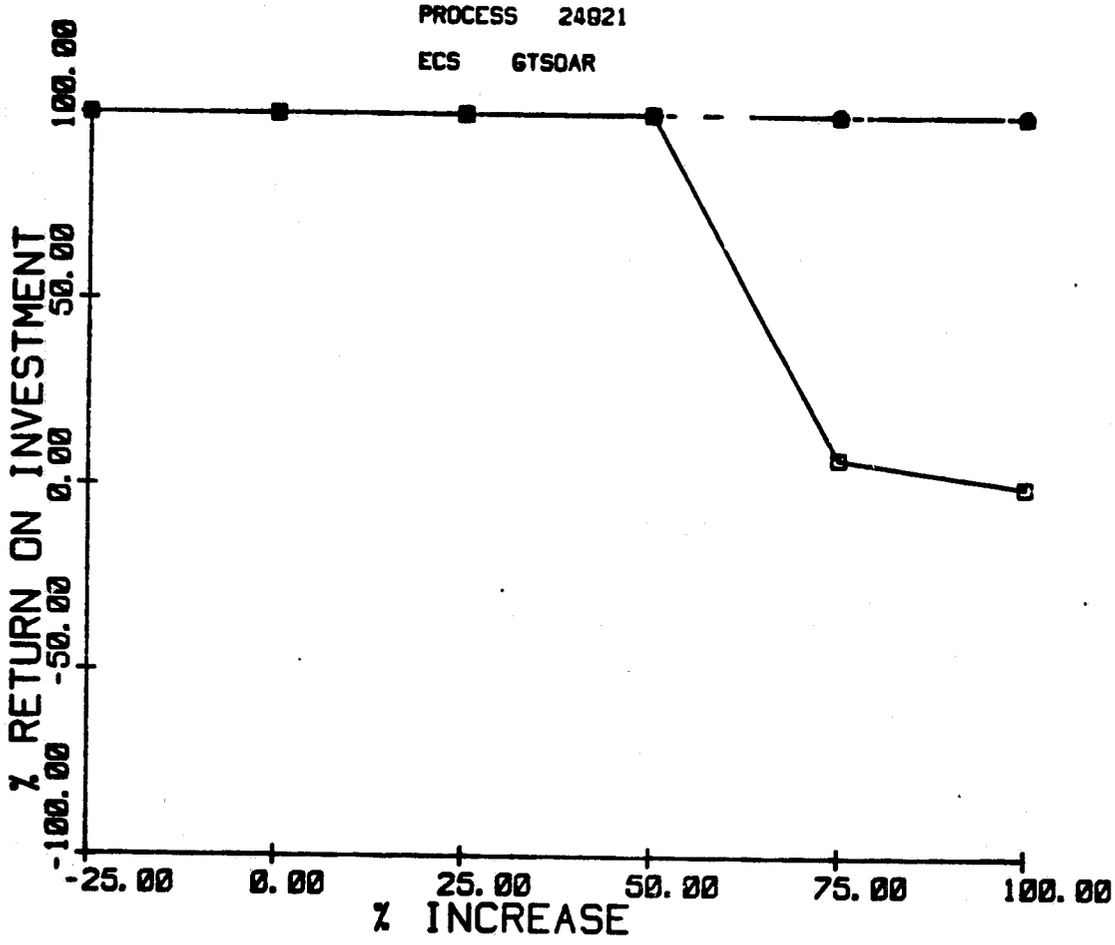
DATE04/10/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24021

ECS GTSOAR



BASE CASE

PROCESS

MW- 5

PROCESS HEAT- 37
(BTU*10**6)

WASTE FUEL- 41
(BTU*10**6)

POWER/HEAT- 0.461

NO COGENERATION

CAPITAL COST- 4.4

LAEC -2.488

FUEL -COAL-AFB

COGENERATION

CAPITAL COST- 3.0

LAEC -2.180

ROI -999

MW(GEN) -0

FUEL -RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

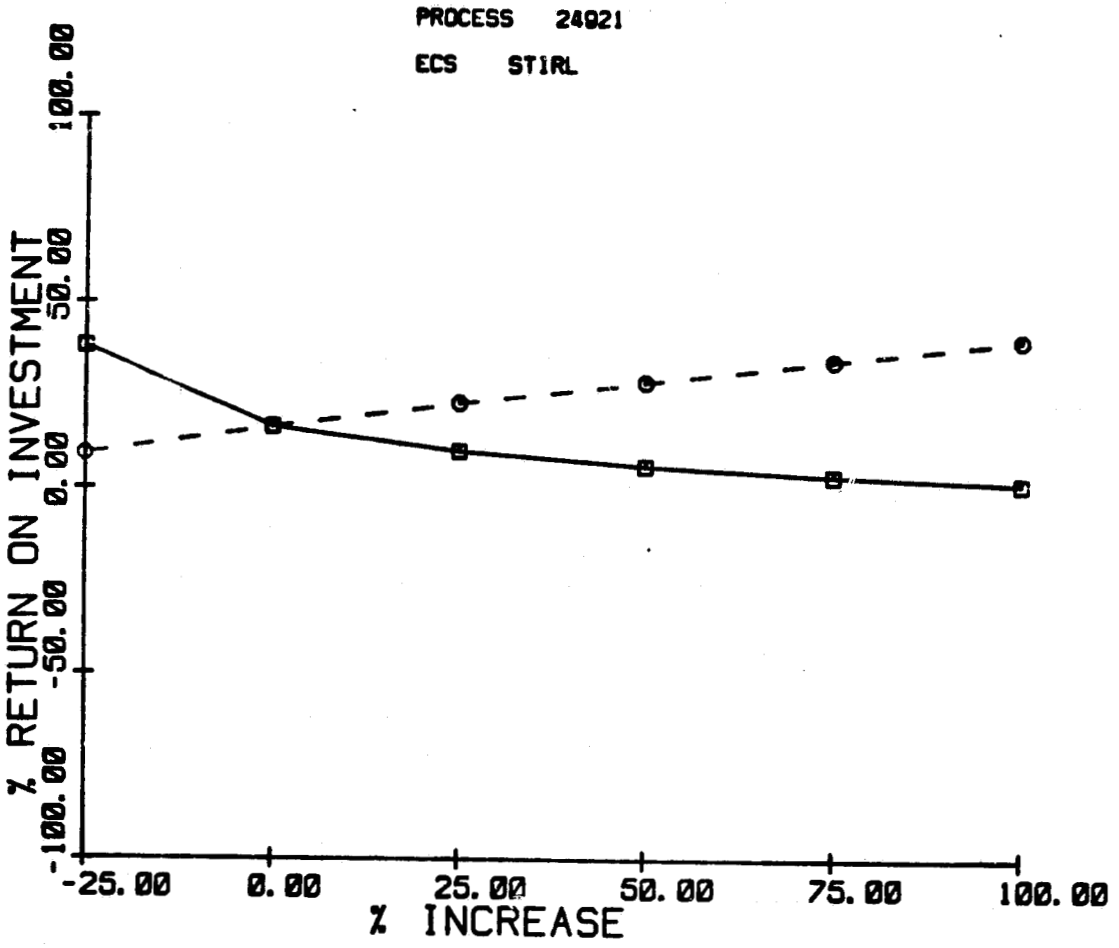
DATE04/16/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 24021

ECS STIRL



BASE CASE

NO COGENERATION

PROCESS

MW- 5

PROCESS HEAT- 37

(BTU*10**6)

WASTE FUEL- 41

(BTU*10**6)

POWER/HEAT- 0.461

CAPITAL COST- 4.4

LAEC - 2.486

FUEL - COAL-AFB

COGENERATION

CAPITAL COST- 7.7

LAEC - 1.908

ROI - 16

MW(GEN) - 5

FUEL - COAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

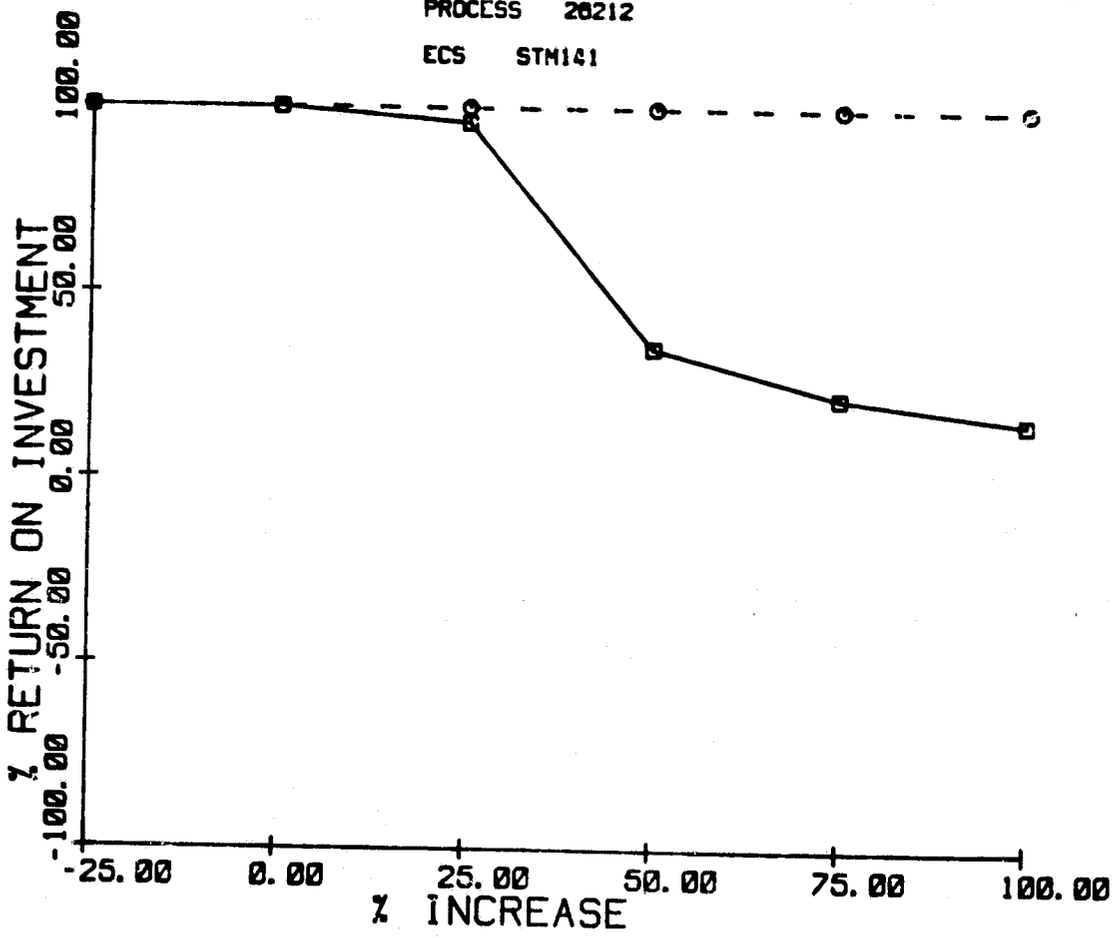
DATE04/16/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20212

ECS STM141



BASE CASE

NO COGENERATION

PROCESS

MW- 50

PROCESS HEAT- 700

(BTU*10**6)

WASTE FUEL- 353

(BTU*10**6)

POWER/HEAT- 0.219

CAPITAL COST- 47.9

LAEC - 33.870

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 42.6

LAEC - 21.832

ROI - 999

MW(GEN) - 47

FUEL - COAL-AFB

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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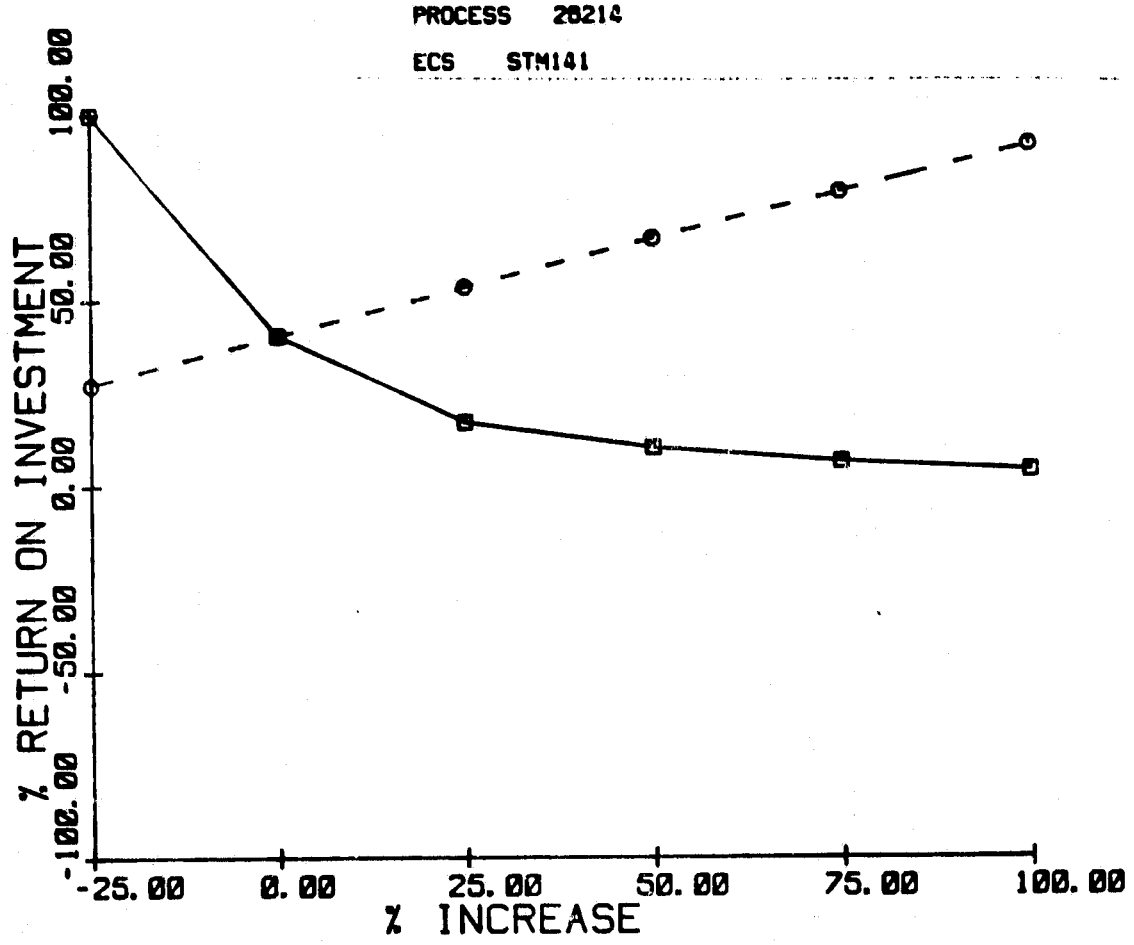
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28214

ECS STM141



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		CAPITAL COST- 48.6
PROCESS HEAT- 610	CAPITAL COST- 40.7	LAEC - 18.476
(BTU*10**6)	LAEC - 24.075	ROI - 40
WASTE FUEL- 250	FUEL - COAL-FGD	MW(GEN) - 29
(BTU*10**6)		FUEL - COAL-FGD
POWER/HEAT- 0.162		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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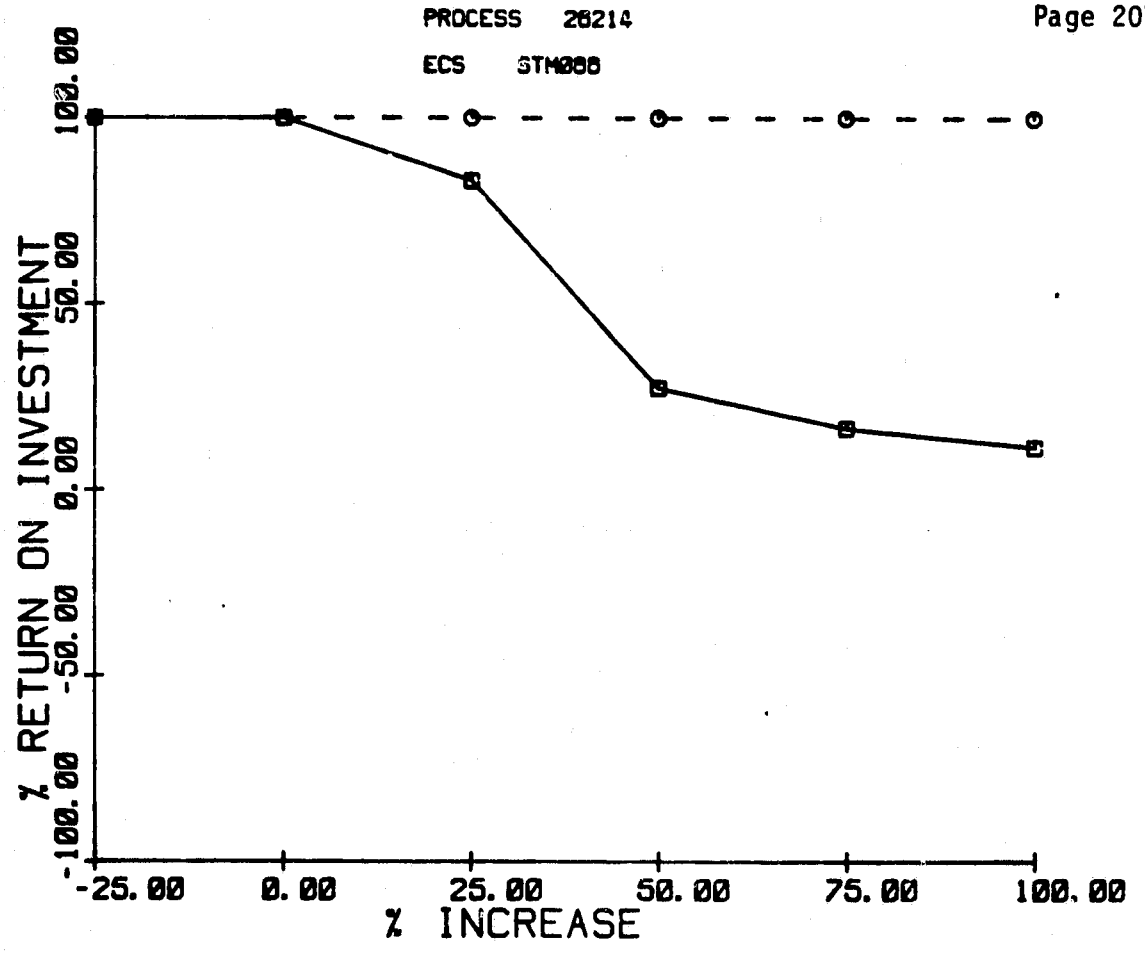
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 26214

ECS STM008



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 29		CAPITAL COST- 35.6
PROCESS HEAT- 610	CAPITAL COST- 40.7	LAEC - 16.536
(BTU*10**6)	LAEC - 24.075	ROI - 999
WASTE FUEL- 259	FUEL - COAL-FGD	MW(GEN) - 29
(BTU*10**6)		FUEL - COAL-AFB
POWER/HEAT- 0.162		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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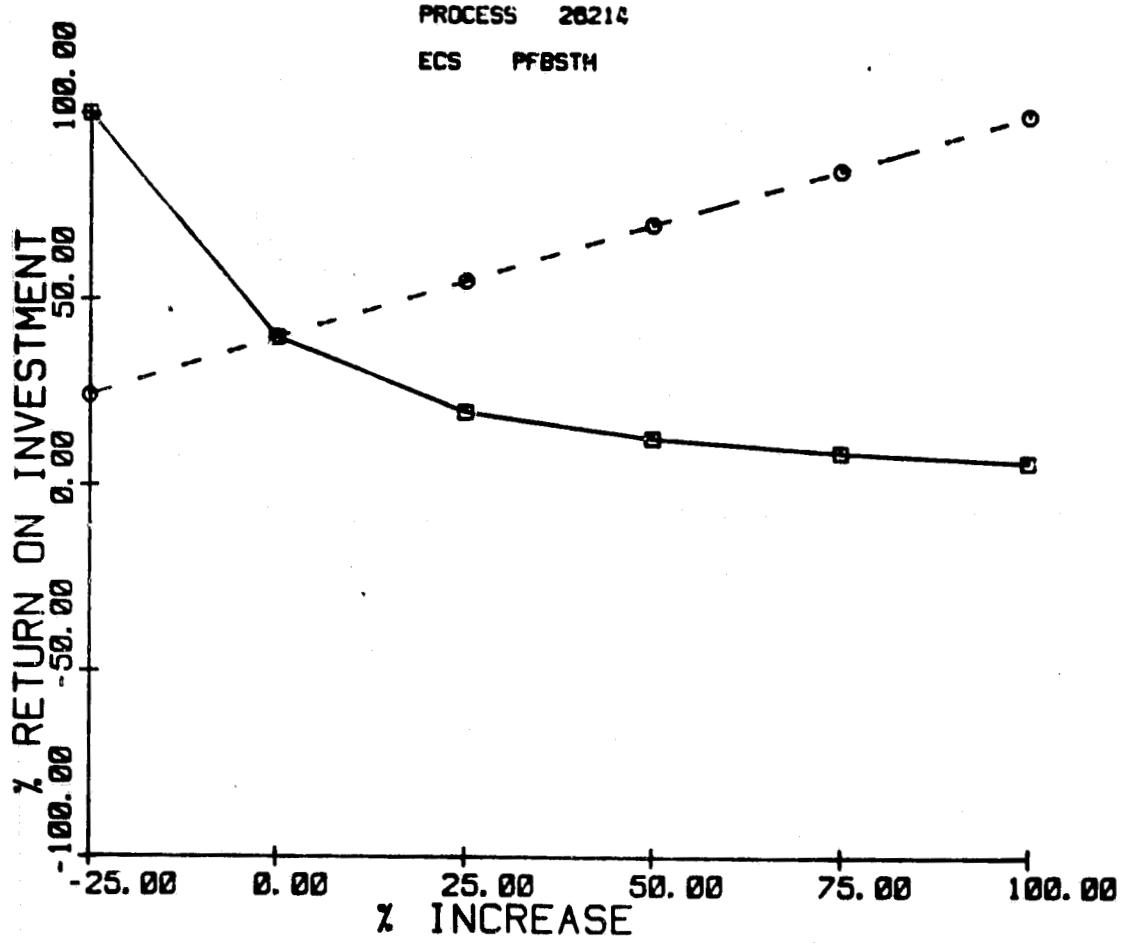
PROCESS 20214

ECS PFBSTM



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 20		CAPITAL COST- 52.2
PROCESS HEAT- 610	CAPITAL COST- 48.7	LAEC - 18.176
(BTU*10**6)	LAEC - 24.875	ROI - 39
WASTE FUEL- 250	FUEL - COAL-FGD	MW(GEN) - 62
(BTU*10**6)		FUEL - COAL-PFB
POWER/HEAT- 0.162		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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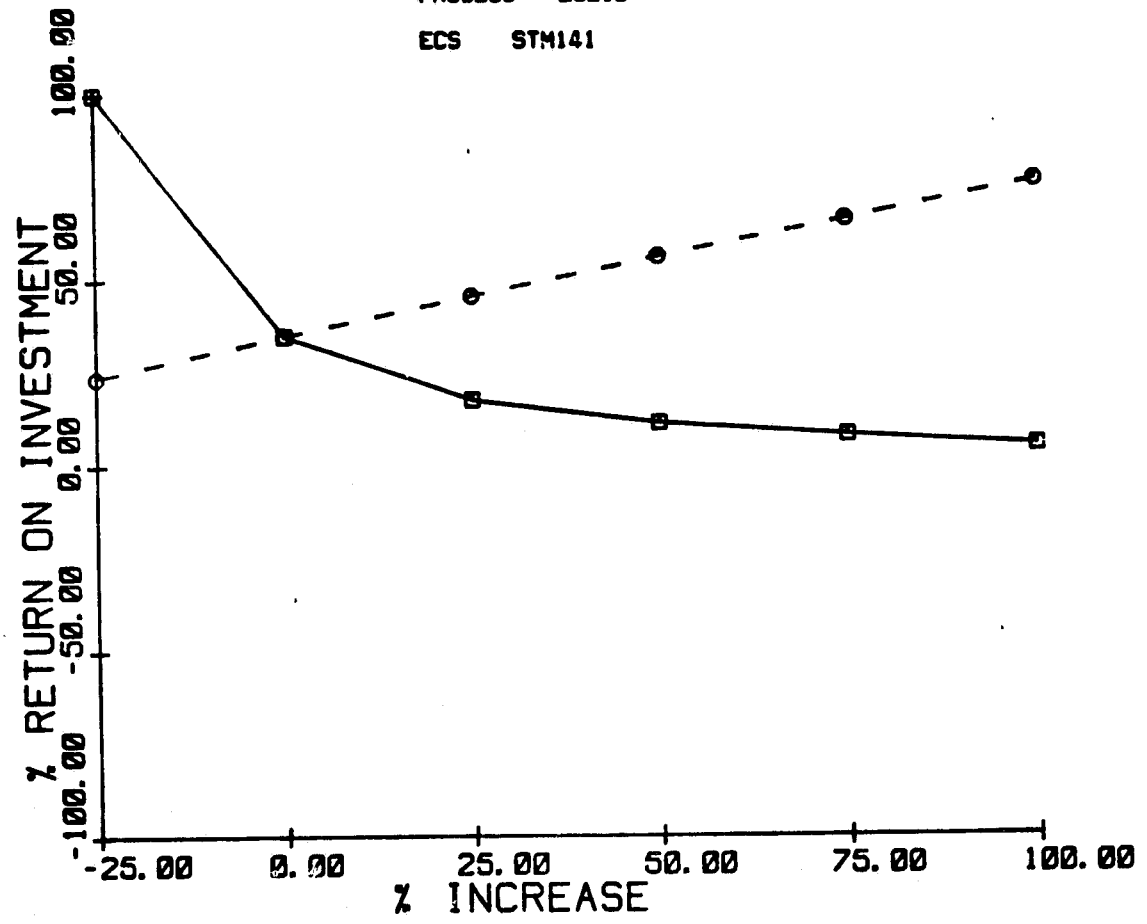
SENSITIVITY STUDY

PROCESS 20216

ECS STM141



BASE CASE

PROCESS

MW- 20

PROCESS HEAT- 307

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.222

NO COGENERATION

CAPITAL COST- 20.6

LAEC - 16.426

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 27.1

LAEC - 12.894

ROI - 34

MW(GEN) - 16

FUEL - COAL-FGD

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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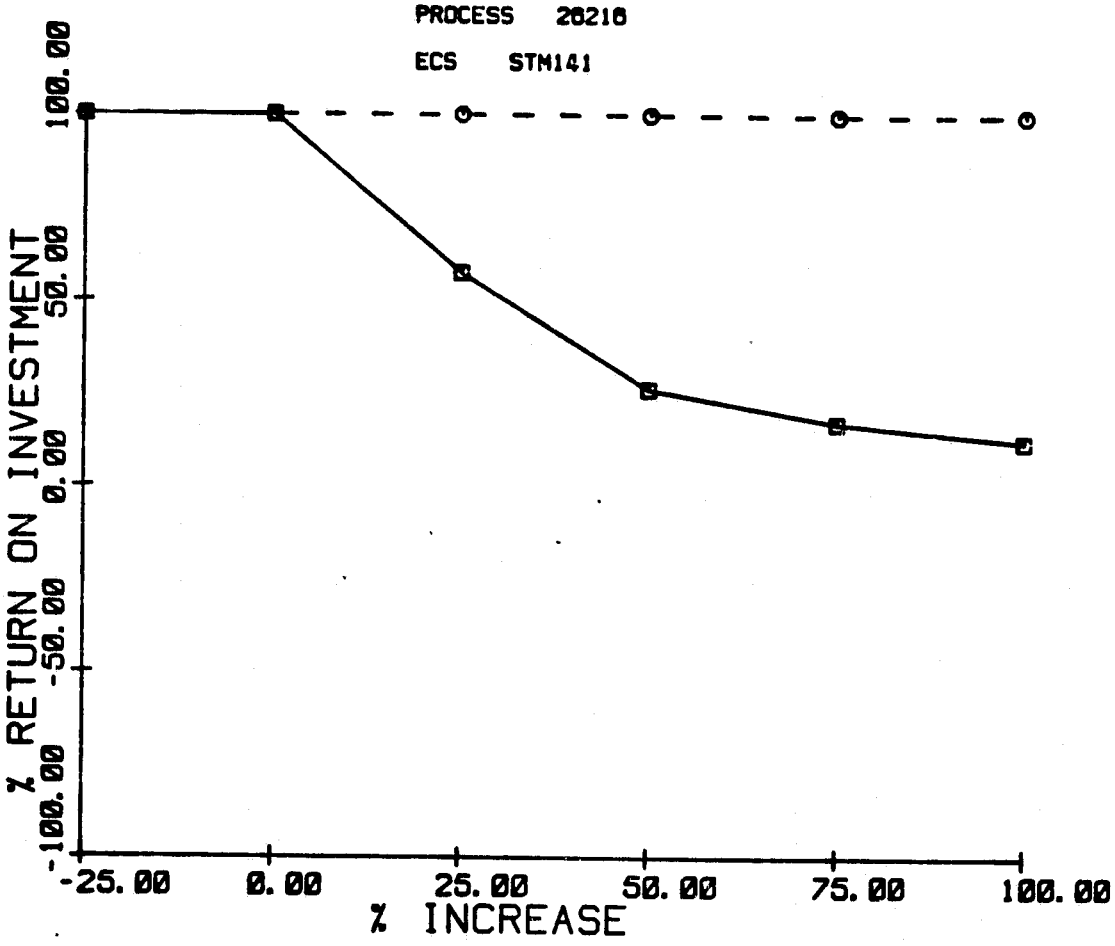
SENSITIVITY STUDY

PROCESS 28218

ECS STM141



BASE CASE

NO COGENERATION

PROCESS

MW- 20

PROCESS HEAT- 307

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.222

CAPITAL COST- 20.8

LAEC - 16.426

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 10.5

LAEC - 11.912

ROI - 999

MW(GEN) - 16

FUEL - COAL-AFB

CAPITAL COST

ELECTRIC POWER

NO-CGN.FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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COGENERATION TECHNOLOGY ALTERNATIVES STUDY

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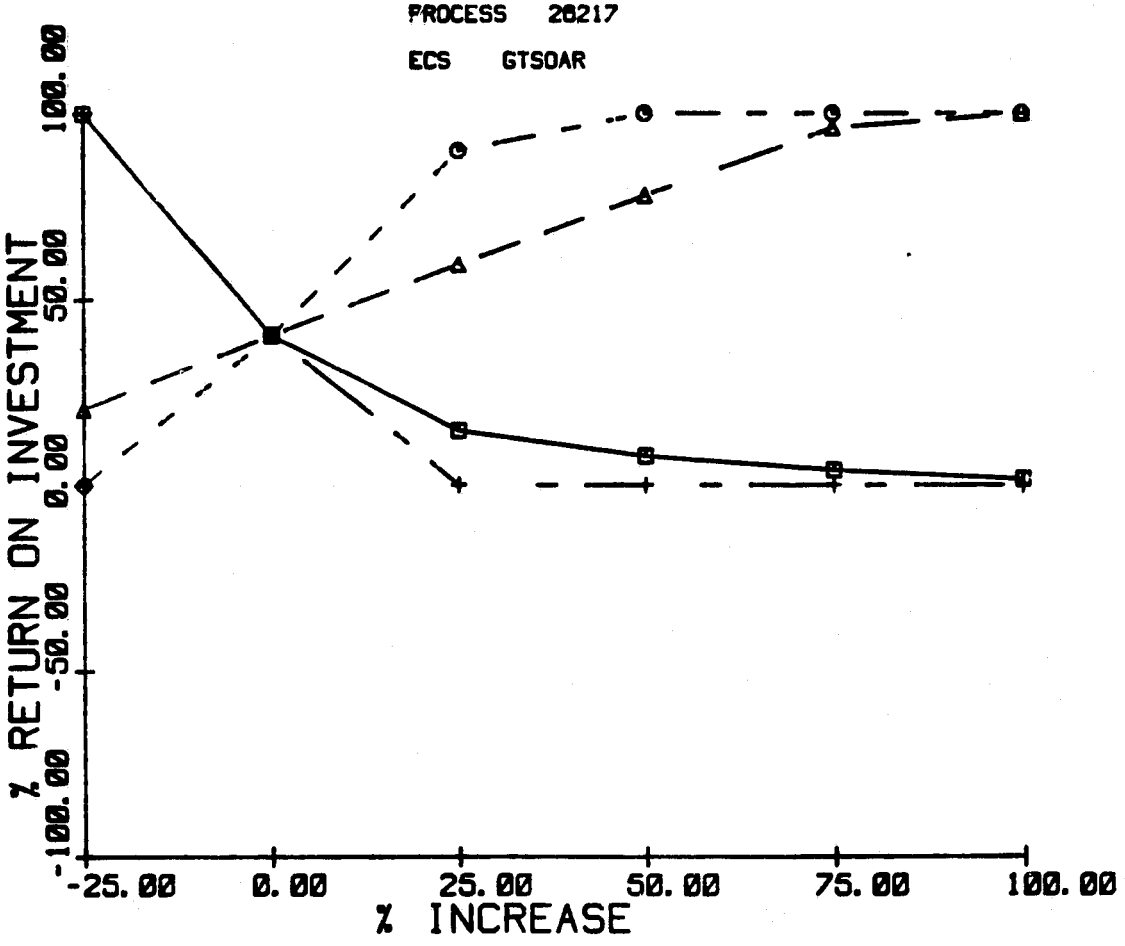
PROCESS 28217

ECS GTSOAR



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW= 31			CAPITAL COST=	17.5
PROCESS HEAT=	183	CAPITAL COST= 14.8	LAEC	= 14.987
(BTU*10**6)		LAEC = 18.517	ROI	= 40
WASTE FUEL=	0	FUEL = COAL-FGD	MW(GEN)	= 31
(BTU*10**6)			FUEL	= RESIDUAL
POWER/HEAT=	0.584			

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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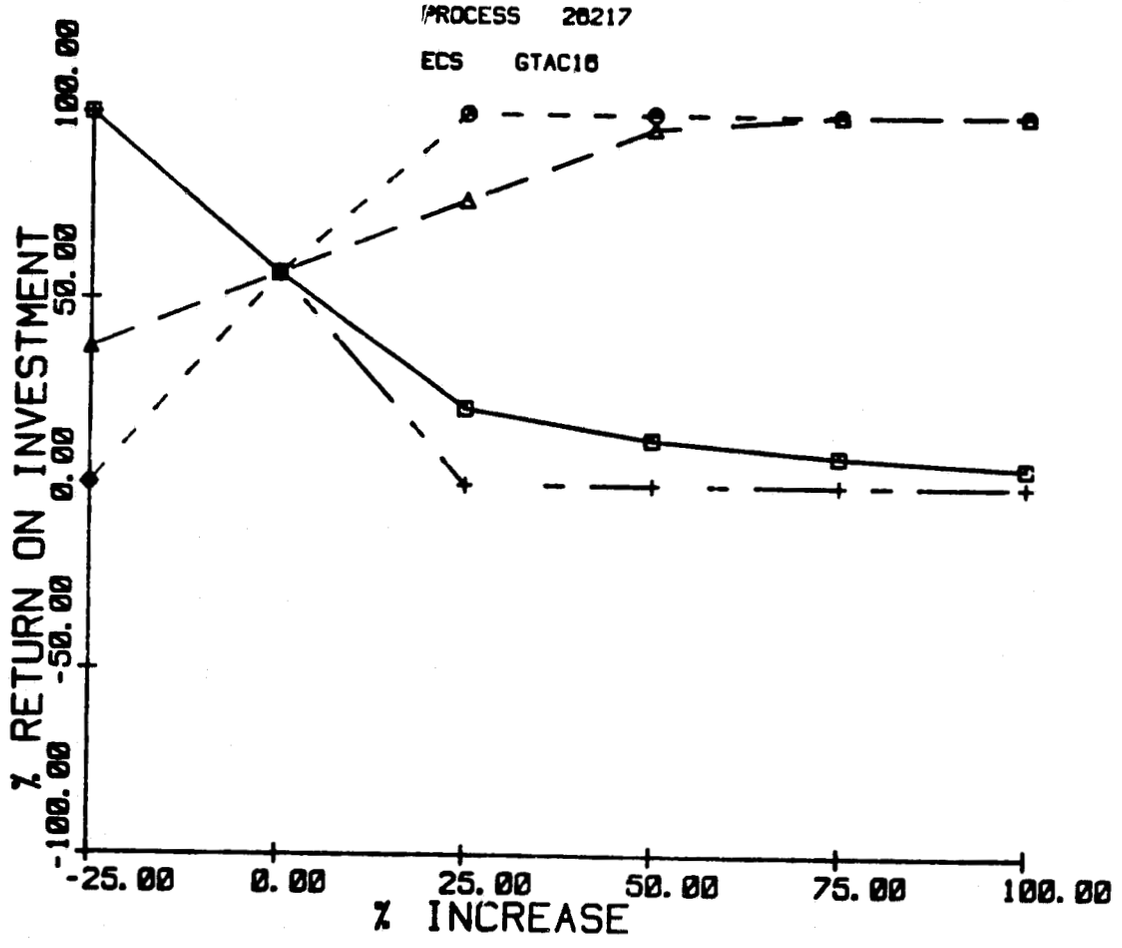
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS GTAC18



BASE CASE

NO COGENERATION

PROCESS

MW- 31

PROCESS HEAT- 163

(BTU*10**6)

WASTE FUEL- 0

(BTU*10**6)

POWER/HEAT- 0.584

CAPITAL COST- 14.6

LAEC - 16.517

FUEL - COAL-FGD

COGENERATION

CAPITAL COST- 17.4

LAEC - 14.302

ROI - 56

MW(GEN) - 31

FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

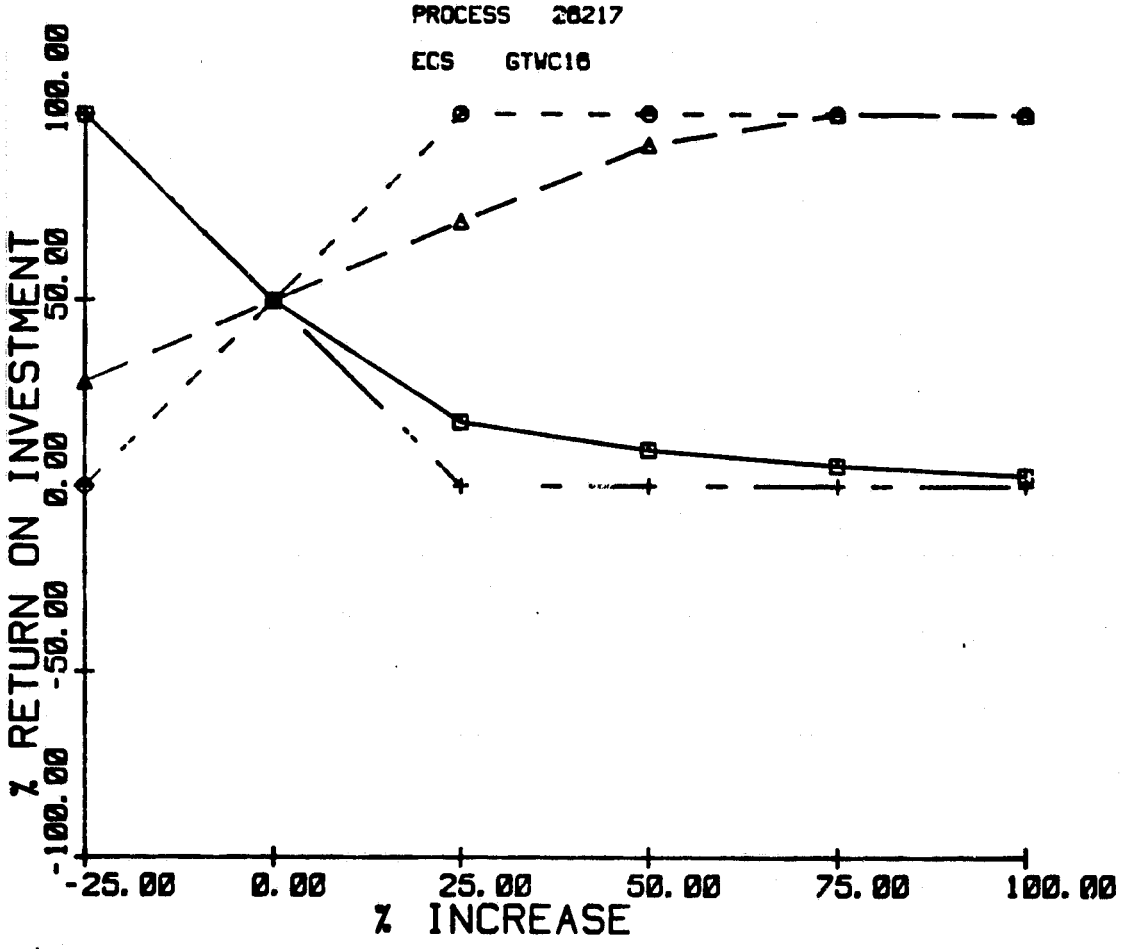
DATE04/17/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS GTWC16



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 31			CAPITAL COST- 17.2	
PROCESS HEAT- 183	CAPITAL COST- 14.8		LAEC	- 14.761
(BTU*10**6)	LAEC	- 16.517	ROI	- 49
WASTE FUEL- 0	FUEL	- COAL-FGD	MW(GEN)	- 31
(BTU*10**6)			FUEL	- RESIDUAL
POWER/HEAT- 0.584				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

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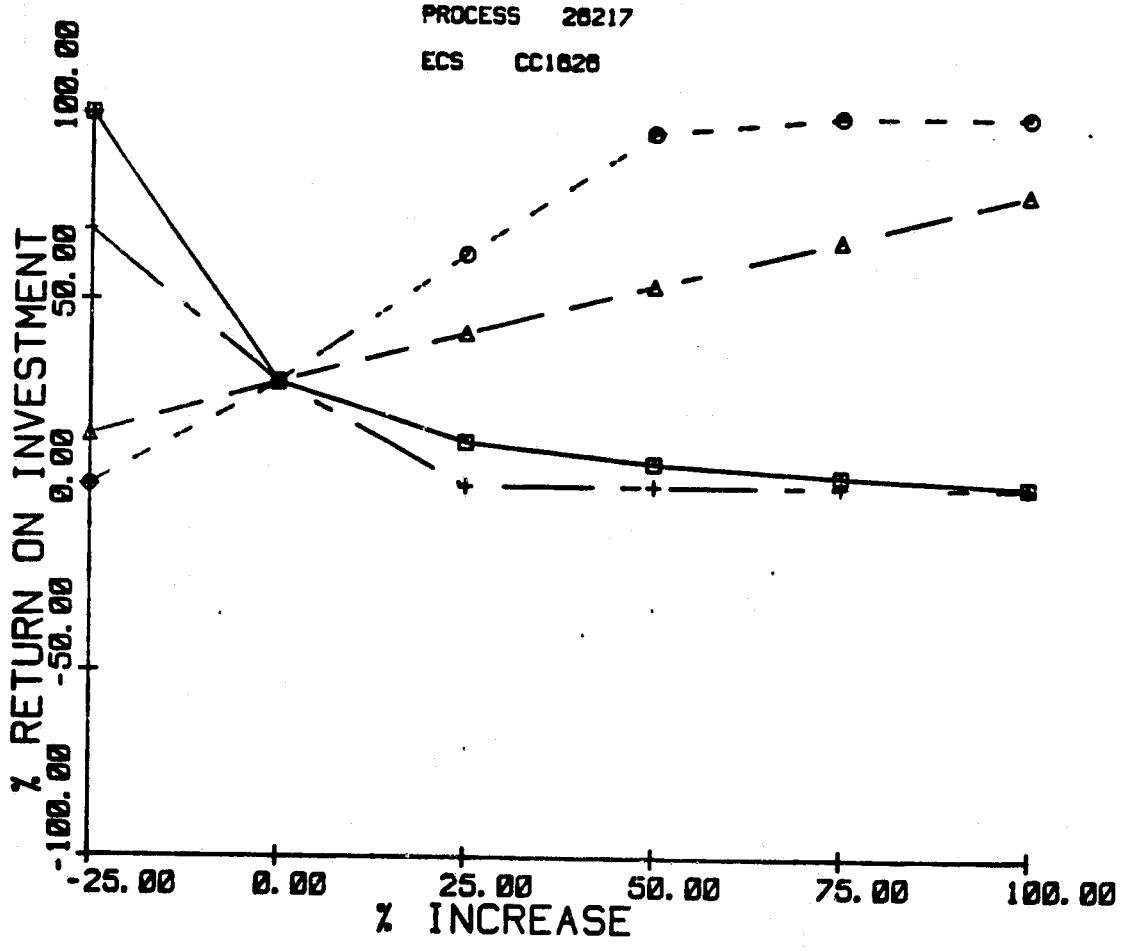
COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 28217

ECS CC1628



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		
PROCESS HEAT- 183	CAPITAL COST- 14.8	CAPITAL COST- 16.1
(BTU*10**6)	LAEC - 16.517	LAEC - 15.150
WASTE FUEL- 0	FUEL - COAL-FGD	ROI - 27
(BTU*10**6)		MW(GEN) - 31
POWER/HEAT- 0.584		FUEL - RESIDUAL

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

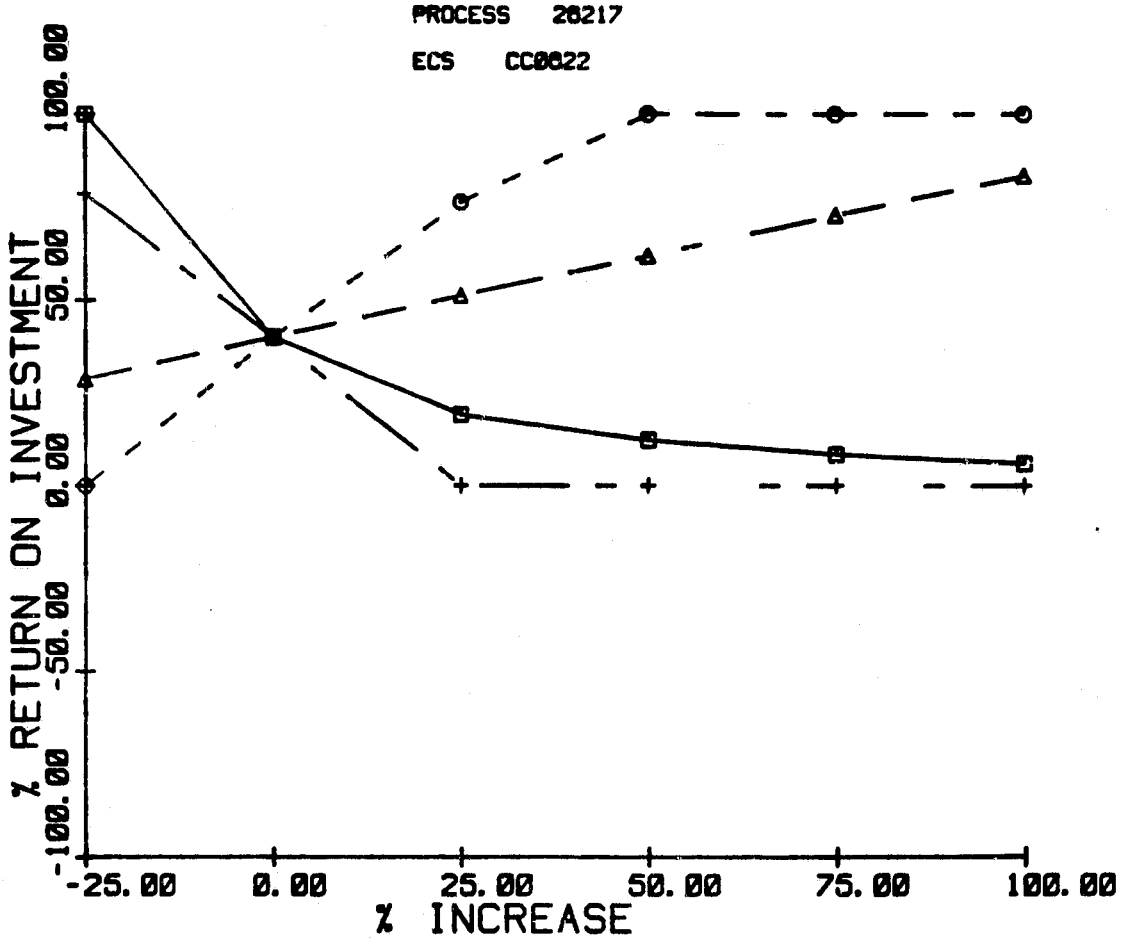
DATE04/17/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS CC0622



BASE CASE

PROCESS	NO COGENERATION		COGENERATION	
MW- 31			CAPITAL COST- 16.7	
PROCESS HEAT- 163	CAPITAL COST- 14.8		LAEC	- 13.604
(BTU*10**6)	LAEC	- 16.517	ROI	- 40
WASTE FUEL- 0	FUEL	- COAL-FGD	MW(GEN)	- 45
(BTU*10**6)			FUEL	- RESIDUAL
POWER/HEAT- 0.584				

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

GENERAL ELECTRIC COMPANY

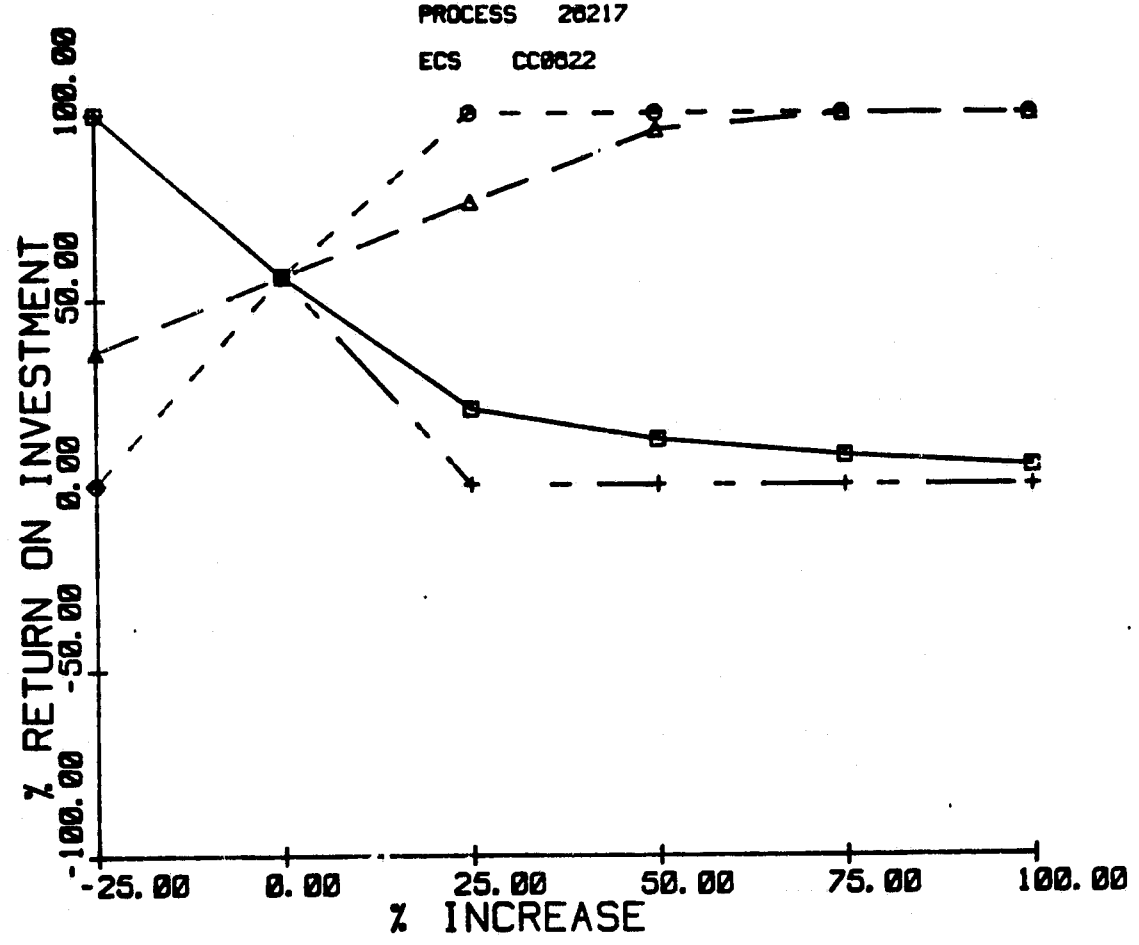
DATE 04/17/79

COGENERATION TECHNOLOGY ALTERNATIVES STUDY

SENSITIVITY STUDY

PROCESS 20217

ECS CC0022



BASE CASE

PROCESS	NO COGENERATION	COGENERATION
MW- 31		CAPITAL COST- 16.9
PROCESS HEAT- 183	CAPITAL COST- 14.8	LAEC - 14.328
(BTU*10**6)	LAEC - 16.517	ROI - 56
WASTE FUEL- 0	FUEL - COAL-FGD	MW(GEN) - 31
(BTU*10**6)		FUEL - RESIDUAL
POWER/HEAT- 0.504		

CAPITAL COST

ELECTRIC POWER

NO-CGN FUEL

ECS FUEL

COAL-FIRED NOCOGENERATION BOILER PROCESS

6.1 - Fuel & Emissions Savings By Process-ECS Match

C-51

ORIGINAL PAGE IS OF POOR QUALITY

DATE 06/12/79 — GENERAL ELECTRIC COMPANY — PAGE 1

ISE PEG AES — COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS= .
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL AAL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR NOX	EMISSIONS SAVINGS DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING 10^6	ELECTRIC POWER TOTAL EXPORT MWH $\times 10^4$	ELECTRIC POWER COST mills/KWH	ELECTRIC POWER LAEC SAVED 10^6/yr
20111	STM141	RESIDU	0.	-0.002	0.	0.003	0.26	-1.	-1.	-0.	1.	2.	0.	0.28	-0.	0.	137.	-0.
20111	STM141	RESIDU	0.	-0.002	0.	0.003	0.28	-1.	-1.	-0.	1.	2.	0.	0.29	0.	0.	105.	-0.
20111	STM141	COAL-F	0.	-0.002	0.	0.003	0.26	-1.	-2.	-0.	1.	0.	0.	0.18	-2.	0.	311.	-1.
20111	STM141	COAL-F	0.	-0.002	0.	0.003	0.28	-1.	-2.	-0.	1.	1.	0.	0.20	-2.	0.	239.	-0.
20111	STM141	COAL-A	0.	-0.002	0.	0.003	0.26	1.	-2.	-0.	2.	0.	0.	0.36	-2.	0.	270.	-0.
20111	STM141	COAL-A	0.	-0.002	0.	0.003	0.28	1.	-2.	-0.	3.	1.	0.	0.37	-1.	0.	195.	-0.
20111	STM088	RESIDU	0.	-0.001	0.	0.002	0.23	-0.	-1.	-0.	1.	1.	0.	0.24	0.	0.	103.	-0.
20111	STM088	COAL-F	0.	-0.001	0.	0.002	0.23	-0.	-2.	-0.	1.	0.	0.	0.14	-2.	0.	245.	-0.
20111	STM088	COAL-A	0.	-0.001	0.	0.002	0.23	1.	-2.	-0.	2.	0.	0.	0.32	-1.	0.	210.	-0.
20111	PFBSTM	COAL-P	0.	-0.002	0.	0.003	0.26	1.	-2.	0.	3.	0.	1.	0.41	-4.	0.	395.	-1.
20111	PFBSTM	COAL-P	0.	-0.003	0.	0.004	0.33	1.	-3.	0.	4.	1.	1.	0.49	-3.	0.	223.	-1.
20111	TISTMT	RESIDU	0.	-0.002	0.	0.003	0.26	-1.	-1.	-0.	1.	2.	0.	0.28	-6.	0.	462.	-1.
20111	TISTMT	RESIDU	0.	-0.003	0.	0.005	0.37	-1.	-1.	-0.	2.	3.	0.	0.39	-8.	0.	348.	-1.
20111	TISTMT	COAL	0.	-0.002	0.	0.003	0.26	-1.	-2.	-0.	1.	0.	0.	0.18	-9.	0.	703.	-2.
20111	TISTMT	COAL	0.	-0.003	0.	0.005	0.37	-1.	-3.	-0.	2.	2.	1.	0.30	-12.	0.	457.	-2.
20111	TIHRSG	RESIDU	0.	-0.001	0.	0.002	0.17	-1.	-1.	-0.	1.	1.	0.	0.19	-8.	0.	539.	-1.
20111	TIHRSG	COAL	0.	-0.001	0.	0.002	0.17	-1.	-2.	-0.	1.	-0.	0.	0.09	-10.	0.	727.	-1.
20111	STIRL	DISTIL	0.	-0.002	0.	0.002	0.21	0.	0.	0.	2.	3.	1.	0.54	2.	0.	114.	-0.
20111	STIRL	DISTIL	0.	-0.005	0.	0.005	0.32	-0.	-1.	0.	3.	5.	1.	0.61	2.	1.	66.	-0.
20111	STIRL	RESIDU	0.	-0.002	0.	0.002	0.21	-1.	-1.	-0.	1.	1.	-0.	0.22	0.	0.	110.	-0.
20111	STIRL	RESIDU	0.	-0.005	0.	0.005	0.32	-2.	-2.	-1.	2.	4.	-0.	0.33	2.	1.	62.	-0.
20111	STIRL	COAL	0.	-0.002	0.	0.002	0.21	-1.	-2.	-0.	1.	0.	0.	0.13	-3.	0.	318.	-1.
20111	STIRL	COAL	0.	-0.005	0.	0.005	0.32	-2.	-4.	-0.	2.	2.	1.	0.26	-1.	1.	128.	-0.
20111	HEGT85	COAL-A	0.	-0.002	0.	0.002	0.19	1.	-3.	-0.	2.	-0.	0.	0.27	-8.	0.	594.	-1.
20111	HEGT85	COAL-A	0.	-0.007	0.	0.006	0.31	-0.	-6.	-0.	4.	2.	1.	0.37	-11.	1.	318.	-2.
20111	HEGT60	COAL-A	0.	-0.003	0.	0.001	0.13	1.	-3.	-0.	2.	-0.	0.	0.22	-8.	0.	587.	-1.
20111	HEGT60	COAL-A	0.	-0.007	0.	0.003	0.20	-0.	-6.	-0.	3.	0.	1.	0.27	-10.	1.	537.	-2.
20111	HEGT00	COAL-A	0.	-0.003	0.	0.001	0.12	0.	-3.	-0.	2.	-0.	0.	0.19	-6.	0.	513.	-1.
20111	HEGT00	COAL-A	0.	-0.004	0.	0.002	0.14	0.	-3.	-0.	2.	-0.	0.	0.20	-6.	0.	397.	-1.
20111	FCMCCL	COAL	0.	-0.002	0.	0.002	0.23	1.	0.	0.	2.	3.	1.	0.63	-6.	0.	512.	-1.
20111	FCMCCL	COAL	0.	-0.005	0.	0.005	0.34	2.	2.	0.	5.	8.	1.	1.00	-7.	1.	272.	-1.
20111	FCSTCL	COAL	0.	-0.002	0.	0.002	0.24	1.	-0.	0.	2.	2.	1.	0.51	-6.	0.	512.	-1.
20111	FCSTCL	COAL	0.	-0.008	0.	0.010	0.42	2.	2.	0.	8.	12.	2.	1.00	-7.	1.	213.	-2.
20111	IGGTST	COAL	0.	-0.002	0.	0.002	0.19	-1.	-3.	0.	1.	-0.	1.	0.12	-6.	0.	552.	-1.
20111	IGGTST	COAL	0.	-0.007	0.	0.006	0.31	-2.	-5.	0.	2.	2.	1.	0.28	-7.	1.	259.	-2.
20111	GTSOAR	RESIDU	-0.002	0.	-0.002	0.004	0.21	-1.	-1.	-0.	0.	2.	0.	0.32	-0.	0.	144.	-0.
20111	GTSOAR	RESIDU	-0.005	0.	-0.005	0.010	0.31	-2.	-2.	-0.	1.	4.	1.	0.43	1.	1.	80.	-0.
20111	GTAC08	RESIDU	0.	-0.002	0.	0.002	0.22	-2.	-1.	-0.	-1.	1.	-0.	0.09	0.	0.	119.	-0.
20111	GTAC08	RESIDU	0.	-0.004	0.	0.004	0.31	-4.	-2.	-0.	-1.	3.	-0.	0.12	1.	0.	64.	-0.
20111	GTAC12	RESIDU	0.	-0.002	0.	0.002	0.23	-2.	-1.	-0.	-0.	2.	-0.	0.11	0.	0.	120.	-0.
20111	GTAC12	RESIDU	0.	-0.005	0.	0.005	0.34	-4.	-2.	-1.	-1.	4.	-0.	0.16	2.	1.	64.	-0.
20111	GTAC16	RESIDU	0.	-0.002	0.	0.002	0.23	-2.	-1.	-0.	-0.	2.	-0.	0.11	0.	0.	125.	-0.
20111	GTAC16	RESIDU	0.	-0.005	0.	0.006	0.35	-5.	-2.	-1.	-1.	4.	-0.	0.18	2.	1.	68.	-0.
20111	GTWC16	RESIDU	0.	-0.002	0.	0.002	0.20	-2.	-1.	-0.	-1.	1.	-0.	0.08	-0.	0.	142.	-0.
20111	GTWC16	RESIDU	0.	-0.007	0.	0.006	0.31	-5.	-3.	-1.	-2.	4.	-0.	0.13	2.	1.	76.	-0.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
20111	CC1626	RESIDU	0.	-0.002	0.	0.002	0.20	-2.	-1.	-0.	-0.	1.	-0.	0.11	-0.	0	165.	-0.
20111	CC1626	RESIDU	0.	-0.012	0.	0.010	0.37	-8.	-5.	-1.	-1.	7.	-0.	0.21	3.	2.	79.	-1.
20111	CC1622	RESIDU	0.	-0.002	0.	0.002	0.21	-2.	-1.	-0.	-0.	1.	-0.	0.12	-0.	0.	153.	-0.
20111	CC1622	RESIDU	0.	-0.010	0.	0.010	0.38	-8.	-4.	-1.	-1.	7.	-0.	0.22	3.	1.	75.	-1.
20111	CC1222	RESIDU	0.	-0.002	0.	0.002	0.21	-2.	-1.	-0.	-0.	1.	-0.	0.13	-0.	0.	148.	-0.
20111	CC1222	RESIDU	0.	-0.010	0.	0.010	0.38	-7.	-4.	-1.	-1.	7.	-0.	0.22	3.	1.	72.	-1.
20111	CC0822	RESIDU	0.	-0.002	0.	0.002	0.22	-2.	-1.	-0.	-0.	2.	-0.	0.13	-0.	0.	154.	-0.
20111	CC0822	RESIDU	0.	-0.008	0.	0.009	0.39	-6.	-3.	-1.	-1.	6.	-0.	0.23	2.	1.	75.	-0.
20111	STIG15	RESIDU	0.	-0.004	0.	0.001	0.07	-2.	-1.	-0.	-1.	1.	0.	0.00	-0.	0.	167.	-0.
20111	STIG15	RESIDU	0.	-0.382	0.	0.060	0.17	-231.	-153.	-11.	-85.	88.	1.	0.01	102.	43.	65.	-13.
20111	STIG10	RESIDU	0.	-0.003	0.	0.001	0.10	-2.	-1.	-0.	-1.	1.	0.	0.03	-0.	0.	154.	-0.
20111	STIG10	RESIDU	0.	-0.032	0.	0.011	0.22	-21.	-13.	-1.	-7.	10.	0.	0.06	8.	4.	73.	-1.
20111	STIG1S	RESIDU	0.	-0.003	0.	0.001	0.12	-2.	-1.	-0.	-1.	1.	0.	0.04	-0.	0.	148.	-0.
20111	STIG1S	RESIDU	0.	-0.018	0.	0.007	0.23	-12.	-7.	-0.	-4.	6.	0.	0.07	4.	2.	74.	-1.
20111	DEADV3	RESIDU	0.	-0.002	0.	0.002	0.20	-3.	-1.	-0.	-2.	1.	-0.	-0.03	-1.	0.	212.	-0.
20111	DEADV3	RESIDU	0.	-0.009	0.	0.008	0.36	-12.	-4.	-1.	-7.	6.	-0.	-0.06	1.	1.	101.	-1.
20111	DEHTPM	RESIDU	0.	-0.002	0.	0.003	0.24	-3.	-1.	-0.	-2.	2.	-0.	0.00	-1.	0.	209.	-0.
20111	DEHTPM	RESIDU	0.	-0.006	0.	0.008	0.40	-9.	-2.	-1.	-5.	5.	-0.	0.01	0.	1.	106.	-1.
20111	DESOA3	DISTIL	-0.002	0.	-0.002	0.004	0.19	-7.	1.	0.	-5.	3.	-0.	-0.35	-0.	0.	154.	-0.
20111	DESOA3	DISTIL	-0.010	0.	-0.010	0.018	0.33	-30.	-0.	0.	-24.	9.	0.	-0.74	1.	1.	106.	-1.
20111	DESOA3	RESIDU	-0.002	0.	-0.002	0.004	0.19	-15.	-1.	-0.	-14.	1.	0.	-1.77	-0.	0.	149.	-0.
20111	DESOA3	RESIDU	-0.010	0.	-0.010	0.018	0.33	-64.	-4.	-0.	-58.	6.	1.	-2.60	1.	1.	102.	-1.
20111	GTSOAD	DISTIL	-0.002	0.	-0.002	0.004	0.22	-1.	-0.	0.	0.	2.	0.	0.47	0.	0.	119.	-0.
20111	GTSOAD	DISTIL	-0.005	0.	-0.005	0.010	0.32	-2.	-1.	0.	1.	4.	0.	0.56	2.	0.	63.	-0.
20111	GTRA08	DISTIL	0.	-0.002	0.	0.002	0.21	-0.	0.	0.	1.	3.	1.	0.46	-0.	0.	158.	-0.
20111	GTRA08	DISTIL	0.	-0.007	0.	0.007	0.36	-3.	-1.	0.	2.	7.	1.	0.51	2.	1.	84.	-0.
20111	GTRA12	DISTIL	0.	-0.002	0.	0.002	0.21	-0.	0.	0.	1.	3.	1.	0.47	-0.	0.	152.	-0.
20111	GTRA12	DISTIL	0.	-0.007	0.	0.008	0.36	-3.	-1.	0.	2.	7.	1.	0.51	2.	1.	83.	-0.
20111	GTRA16	DISTIL	0.	-0.002	0.	0.002	0.21	-0.	0.	0.	1.	3.	1.	0.46	-0.	0.	156.	-0.
20111	GTRA16	DISTIL	0.	-0.007	0.	0.007	0.36	-3.	-1.	0.	1.	7.	1.	0.51	1.	1.	88.	-0.
20111	GTR208	DISTIL	0.	-0.002	0.	0.002	0.21	-1.	0.	0.	1.	3.	1.	0.46	-0.	0.	143.	-0.
20111	GTR208	DISTIL	0.	-0.006	0.	0.006	0.34	-3.	-1.	0.	1.	6.	1.	0.49	2.	1.	79.	-0.
20111	GTR212	DISTIL	0.	-0.002	0.	0.002	0.21	-1.	0.	0.	1.	3.	1.	0.46	-0.	0.	148.	-0.
20111	GTR212	DISTIL	0.	-0.006	0.	0.006	0.34	-3.	-1.	0.	1.	6.	1.	0.49	2.	1.	82.	-0.
20111	GTR216	DISTIL	0.	-0.002	0.	0.002	0.22	-0.	0.	0.	1.	3.	1.	0.46	-0.	0.	150.	-0.
20111	GTR216	DISTIL	0.	-0.006	0.	0.007	0.35	-3.	-1.	0.	1.	6.	1.	0.50	1.	1.	83.	-0.
20111	GTRW08	DISTIL	0.	-0.003	0.	0.002	0.18	-1.	-0.	0.	1.	3.	1.	0.44	-0.	0.	166.	-0.
20111	GTRW08	DISTIL	0.	-0.010	0.	0.008	0.31	-4.	-2.	0.	1.	8.	1.	0.48	2.	1.	88.	-1.
20111	GTRW12	DISTIL	0.	-0.002	0.	0.002	0.19	-0.	0.	0.	1.	3.	1.	0.45	-0.	0.	165.	-0.
20111	GTRW12	DISTIL	0.	-0.010	0.	0.008	0.33	-4.	-2.	0.	2.	8.	1.	0.49	2.	1.	86.	-1.
20111	GTRW16	DISTIL	0.	-0.002	0.	0.002	0.19	-1.	0.	0.	1.	3.	1.	0.45	-1.	0.	170.	-0.
20111	GTRW16	DISTIL	0.	-0.010	0.	0.008	0.33	-4.	-2.	0.	1.	8.	1.	0.49	2.	1.	90.	-1.
20111	GTR308	DISTIL	0.	-0.003	0.	0.002	0.17	-1.	-0.	0.	1.	3.	1.	0.43	-0.	0.	152.	-0.
20111	GTR308	DISTIL	0.	-0.008	0.	0.005	0.26	-4.	-2.	0.	1.	6.	1.	0.45	2.	1.	84.	-0.
20111	GTR312	DISTIL	0.	-0.002	0.	0.002	0.19	-1.	0.	0.	1.	3.	1.	0.45	-0.	0.	159.	-0.
20111	GTR3	DISTIL	0.	-0.009	0.	0.007	0.32	-4.	-2.	0.	1.	7.	1.	0.48	2.	1.	83.	-1.

DATE 06/12/79 GENERAL ELECTRIC COMPANY PAGE 3

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=PGWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
20111	GTR316	DISTIL	0.	-0.002	0.	0.002	0.19	-1.	0.	0.	1.	3.	1.	0.45	-0.	0.	162.	-0.
20111	GTR316	DISTIL	0.	-0.009	0.	0.007	0.32	-4.	-2.	0.	1.	7.	1.	0.48	2.	1.	87.	-1.
20111	FCPADS	DISTIL	0.	-0.002	0.	0.002	0.19	0.	1.	0.	2.	4.	1.	0.66	0.	0.	128.	-0.
20111	FCPADS	DISTIL	0.	-0.011	0.	0.009	0.35	-1.	2.	0.	5.	14.	2.	0.86	3.	1.	86.	-1.
20111	FCMCDS	DISTIL	0.	-0.002	0.	0.002	0.18	-2.	1.	0.	-0.	4.	1.	0.43	-0.	0.	138.	-0.
20111	FCMCDS	DISTIL	0.	-0.016	0.	0.012	0.36	-14.	2.	-0.	-5.	18.	2.	0.46	3.	2.	97.	-1.
20261	STM141	RESIDU	0.	-0.001	0.	0.001	0.24	-0.	-0.	-0.	0.	1.	0.	0.25	-0.	0.	139.	-0.
20261	STM141	COAL-F	0.	-0.001	0.	0.001	0.24	-0.	-1.	-0.	0.	0.	0.	0.17	-1.	0.	263.	-0.
20261	STM141	COAL-A	0.	-0.001	0.	0.001	0.24	0.	-1.	-0.	1.	0.	0.	0.32	-1.	0.	237.	-0.
20261	STM088	RESIDU	0.	-0.001	0.	0.001	0.19	-0.	-0.	-0.	0.	1.	0.	0.20	-0.	0.	130.	-0.
20261	STM088	COAL-F	0.	-0.001	0.	0.001	0.19	-0.	-1.	-0.	0.	0.	0.	0.12	-1.	0.	252.	-0.
20261	STM088	COAL-A	0.	-0.001	0.	0.001	0.19	0.	-1.	-0.	1.	0.	0.	0.26	-1.	0.	234.	-0.
20261	PFBSTM	COAL-F	0.	-0.001	0.	0.002	0.32	1.	-1.	0.	2.	0.	0.	0.48	-2.	0.	374.	-1.
20261	PFBSTM	COAL-P	0.	-0.001	0.	0.002	0.33	1.	-1.	0.	2.	1.	0.	0.49	-2.	0.	306.	-0.
20261	TISTMT	RESIDU	0.	-0.001	0.	0.002	0.32	-0.	-0.	-0.	1.	1.	0.	0.34	-4.	0.	511.	-1.
20261	TISTMT	RESIDU	0.	-0.002	0.	0.002	0.37	-1.	-1.	-0.	1.	2.	0.	0.39	-5.	0.	429.	-1.
20261	TISTMT	COAL	0.	-0.001	0.	0.002	0.32	-0.	-1.	-0.	1.	0.	0.	0.25	-6.	0.	737.	-1.
20261	TISTMT	COAL	0.	-0.002	0.	0.002	0.37	-1.	-1.	-0.	1.	1.	0.	0.30	-7.	0.	572.	-1.
20261	TIHRSG	RESIDU	0.	-0.001	0.	0.001	0.14	-0.	-0.	-0.	0.	1.	0.	0.15	-4.	0.	476.	-1.
20261	TIHRSG	COAL	0.	-0.001	0.	0.001	0.14	-0.	-1.	-0.	0.	-0.	0.	0.07	-6.	0.	637.	-1.
20261	STIRL	DISTIL	0.	-0.001	0.	0.002	0.27	-0.	-0.	0.	1.	2.	0.	0.57	0.	0.	110.	-0.
20261	STIRL	DISTIL	0.	-0.002	0.	0.003	0.33	-0.	-0.	0.	1.	2.	0.	0.61	1.	0.	60.	-0.
20261	STIRL	RESIDU	0.	-0.001	0.	0.002	0.27	-0.	-1.	-0.	0.	1.	-0.	0.27	0.	0.	106.	-0.
20261	STIRL	RESIDU	0.	-0.002	0.	0.003	0.33	-1.	-1.	-0.	1.	2.	-0.	0.34	1.	0.	56.	-0.
20261	STIRL	COAL	0.	-0.001	0.	0.002	0.27	-0.	-1.	-0.	0.	0.	0.	0.19	-1.	0.	303.	-0.
20261	STIRL	COAL	0.	-0.002	0.	0.003	0.33	-1.	-2.	-0.	1.	1.	0.	0.27	-0.	0.	146.	-0.
20261	HEGT85	COAL-A	0.	-0.002	0.	0.001	0.25	0.	-1.	-0.	1.	0.	0.	0.32	-5.	0.	621.	-1.
20261	HEGT85	COAL-A	0.	-0.003	0.	0.003	0.32	-0.	-2.	-0.	2.	1.	0.	0.38	-7.	0.	400.	-1.
20261	HEGT60	COAL-A	0.	-0.002	0.	0.001	0.16	0.	-2.	-0.	1.	-0.	0.	0.24	-5.	0.	613.	-1.
20261	HEGT60	COAL-A	0.	-0.003	0.	0.002	0.20	-0.	-3.	-0.	1.	0.	0.	0.27	-6.	0.	420.	-1.
20261	HEGT00	COAL-A	0.	-0.002	0.	0.001	0.13	0.	-2.	-0.	1.	-0.	0.	0.19	-4.	0.	428.	-1.
20261	FCMCCL	COAL	0.	-0.001	0.	0.002	0.28	1.	0.	0.	2.	2.	0.	0.80	-4.	0.	520.	-1.
20261	FCMCCL	COAL	0.	-0.002	0.	0.002	0.34	1.	1.	0.	2.	4.	1.	1.00	-4.	0.	342.	-1.
20261	FCSTCL	COAL	0.	-0.001	0.	0.002	0.29	0.	0.	0.	1.	2.	0.	0.66	-4.	0.	537.	-1.
20261	FCSTCL	COAL	0.	-0.004	0.	0.005	0.42	1.	1.	0.	4.	6.	1.	1.00	-5.	0.	270.	-1.
20261	IGGTST	COAL	0.	-0.002	0.	0.001	0.24	-1.	-1.	0.	0.	0.	0.	0.18	-5.	0.	593.	-1.
20261	IGGTST	COAL	0.	-0.003	0.	0.003	0.31	-1.	-2.	0.	1.	1.	1.	0.28	-5.	0.	345.	-1.
20261	GTSOAR	RESIDU	-0.002	0.	-0.002	0.003	0.25	-1.	-1.	-0.	0.	1.	0.	0.37	-0.	0.	152.	-0.
20261	GTSOAR	RESIDU	-0.002	0.	-0.002	0.005	0.31	-1.	-1.	-0.	1.	2.	0.	0.43	0.	0.	95.	-0.
20261	GTAC08	RESIDU	0.	-0.001	0.	0.002	0.27	-1.	-1.	-0.	-0.	1.	-0.	0.10	0.	0.	116.	-0.
20261	GTAC08	RESIDU	0.	-0.002	0.	0.002	0.31	-2.	-1.	-0.	-1.	1.	-0.	0.12	1.	0.	73.	-0.
20261	GTAC12	RESIDU	0.	-0.001	0.	0.002	0.28	-1.	-1.	-0.	-0.	1.	-0.	0.13	0.	0.	123.	-0.
20261	GTAC12	RESIDU	0.	-0.002	0.	0.002	0.34	-2.	-1.	-0.	-0.	2.	-0.	0.16	1.	0.	71.	-0.
20261	GTAC16	RESIDU	0.	-0.001	0.	0.002	0.28	-1.	-1.	-0.	-0.	1.	-0.	0.14	0.	0.	130.	-0.
20261	GTAC16	RESIDU	0.	-0.002	0.	0.003	0.35	-2.	-1.	-0.	-0.	2.	-0.	0.18	1.	0.	75.	-0.
20261	GTWC16	RESIDU	0.	-0.002	0.	0.001	0.24	-1.	-1.	-0.	-0.	1.	-0.	0.10	-0.	0.	152.	-0.

DATE 06/12/79 GENERAL ELECTRIC COMPANY PAGE 4

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

FUEL UNITS =

EMISSION UNITS=

COST =$*10**9

TIME 1990 LEVEL ALL

TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
20261	GTWC16	RESIDU	0.	-0.003	0.	0.003	0.31	-2.	-1.	-0.	-1.	2.	-0.	0.13	0.	0.	89.	-0.
20261	CC1626	RESIDU	0.	-0.002	0.	0.001	0.24	-1.	-1.	-0.	-0.	1.	-0.	0.14	-0.	0.	186.	-0.
20261	CC1626	RESIDU	0.	-0.005	0.	0.005	0.37	-4.	-2.	-0.	-1.	3.	-0.	0.21	1.	1.	97.	-0.
20261	CC1622	RESIDU	0.	-0.001	0.	0.001	0.26	-1.	-1.	-0.	-0.	1.	-0.	0.15	-0.	0.	172.	-0.
20261	CC1622	RESIDU	0.	-0.005	0.	0.005	0.38	-3.	-2.	-0.	-1.	3.	-0.	0.22	1.	1.	91.	-0.
20261	CC1222	RESIDU	0.	-0.001	0.	0.001	0.26	-1.	-1.	-0.	-0.	1.	-0.	0.15	-0.	0.	166.	-0.
20261	CC1222	RESIDU	0.	-0.005	0.	0.005	0.38	-3.	-2.	-0.	-1.	3.	-0.	0.22	1.	1.	87.	-0.
20261	CC0822	RESIDU	0.	-0.001	0.	0.002	0.28	-1.	-1.	-0.	-0.	1.	-0.	0.16	-0.	0.	173.	-0.
20261	CC0822	RESIDU	0.	-0.003	0.	0.004	0.39	-3.	-1.	-0.	-0.	3.	-0.	0.23	1.	0.	94.	-0.
20261	STIG15	RESIDU	0.	-0.002	0.	0.001	0.09	-1.	-1.	-0.	-1.	1.	0.	0.01	-0.	0.	190.	-0.
20261	STIG15	RESIDU	0.	-0.175	0.	0.037	0.17	-106.	-70.	-5.	-39.	40.	0.	0.01	47.	20.	65.	-6.
20261	STIG10	RESIDU	0.	-0.002	0.	0.001	0.13	-1.	-1.	-0.	-0.	1.	0.	0.04	-0.	0.	173.	-0.
20261	STIG10	RESIDU	0.	-0.015	0.	0.005	0.22	-10.	-6.	-0.	-3.	4.	0.	0.06	3.	2.	84.	-1.
20261	STIG1S	RESIDU	0.	-0.002	0.	0.001	0.15	-1.	-1.	-0.	-1.	1.	0.	0.04	-0.	0.	186.	-0.
20261	STIG1S	RESIDU	0.	-0.008	0.	0.003	0.23	-6.	-3.	-0.	-2.	3.	0.	0.07	1.	1.	87.	-0.
20261	DEADV3	RESIDU	0.	-0.001	0.	0.001	0.26	-2.	-1.	-0.	-1.	1.	-0.	-0.03	-1.	0.	234.	-0.
20261	DEADV3	RESIDU	0.	-0.004	0.	0.004	0.37	-5.	-2.	-0.	-3.	3.	-0.	-0.04	-1.	0.	131.	-0.
20261	DEHTPM	RESIDU	0.	-0.001	0.	0.002	0.30	-2.	-0.	-0.	-1.	1.	-0.	0.00	-1.	0.	232.	-0.
20261	DEHTPM	RESIDU	0.	-0.003	0.	0.003	0.40	-4.	-1.	-0.	-2.	2.	-0.	0.01	-1.	0.	139.	-0.
20261	DESOA3	DISTIL	-0.002	0.	-0.002	0.003	0.24	-5.	0.	0.	-4.	2.	0.	-0.48	-0.	0.	151.	-0.
20261	DESOA3	DISTIL	-0.004	0.	-0.004	0.008	0.35	-13.	-0.	0.	-10.	4.	0.	-0.72	1.	0.	102.	-0.
20261	DESOA3	RESIDU	-0.002	0.	-0.002	0.003	0.24	-10.	-1.	-0.	-9.	1.	0.	-2.04	-0.	0.	146.	-0.
20261	DESOA3	RESIDU	-0.004	0.	-0.004	0.008	0.35	-27.	-2.	-0.	-25.	3.	0.	-2.56	1.	0.	97.	-0.
20261	GTSOAD	DISTIL	-0.001	0.	-0.001	0.003	0.27	-1.	-0.	0.	0.	1.	0.	0.52	0.	0.	121.	-0.
20261	GTSOAD	DISTIL	-0.002	0.	-0.002	0.004	0.32	-1.	-0.	0.	1.	2.	0.	0.56	1.	0.	71.	-0.
20261	GTRA08	DISTIL	0.	-0.001	0.	0.001	0.26	-0.	-0.	0.	1.	2.	0.	0.48	-0.	0.	173.	-0.
20261	GTRA08	DISTIL	0.	-0.003	0.	0.003	0.36	-2.	-1.	0.	1.	3.	1.	0.51	0.	0.	100.	-0.
20261	GTRA12	DISTIL	0.	-0.001	0.	0.001	0.26	-0.	-0.	0.	1.	2.	0.	0.48	-0.	0.	165.	-0.
20261	GTRA12	DISTIL	0.	-0.003	0.	0.003	0.36	-1.	-1.	0.	1.	3.	1.	0.51	0.	0.	97.	-0.
20261	GTRA16	DISTIL	0.	-0.001	0.	0.001	0.26	-0.	-0.	0.	1.	2.	0.	0.48	-0.	0.	171.	-0.
20261	GTRA16	DISTIL	0.	-0.003	0.	0.003	0.36	-1.	-1.	0.	1.	3.	1.	0.51	0.	0.	103.	-0.
20261	GTR208	DISTIL	0.	-0.001	0.	0.001	0.26	-1.	-0.	0.	0.	2.	0.	0.47	-0.	0.	153.	-0.
20261	GTR208	DISTIL	0.	-0.003	0.	0.003	0.34	-1.	-0.	0.	1.	3.	0.	0.49	0.	0.	92.	-0.
20261	GTR212	DISTIL	0.	-0.001	0.	0.001	0.26	-0.	-0.	0.	0.	2.	0.	0.47	-0.	0.	159.	-0.
20261	GTR212	DISTIL	0.	-0.003	0.	0.003	0.34	-1.	-0.	0.	1.	3.	0.	0.49	0.	0.	95.	-0.
20261	GTR216	DISTIL	0.	-0.001	0.	0.001	0.26	-0.	-0.	0.	0.	2.	0.	0.48	-0.	0.	161.	-0.
20261	GTR216	DISTIL	0.	-0.003	0.	0.003	0.35	-1.	-0.	0.	1.	3.	0.	0.50	0.	0.	97.	-0.
20261	GTRW08	DISTIL	0.	-0.002	0.	0.001	0.22	-1.	-0.	0.	0.	2.	0.	0.45	-0.	0.	184.	-0.
20261	GTRW08	DISTIL	0.	-0.005	0.	0.003	0.31	-2.	-1.	0.	1.	4.	1.	0.48	0.	0.	105.	-0.
20261	GTRW12	DISTIL	0.	-0.002	0.	0.001	0.23	-0.	-0.	0.	0.	2.	0.	0.46	-0.	0.	162.	-0.
20261	GTRW12	DISTIL	0.	-0.005	0.	0.004	0.33	-2.	-1.	0.	1.	4.	1.	0.49	0.	1.	103.	-0.
20261	GTRW16	DISTIL	0.	-0.002	0.	0.001	0.23	-0.	-0.	0.	0.	2.	0.	0.46	-1.	0.	166.	-0.
20261	GTRW16	DISTIL	0.	-0.004	0.	0.004	0.33	-2.	-1.	0.	1.	4.	1.	0.49	0.	0.	108.	-0.
20261	GTR308	DISTIL	0.	-0.002	0.	0.001	0.21	-1.	-0.	0.	0.	2.	0.	0.44	-0.	0.	163	-0.
20261	GTR308	DISTIL	0.	-0.004	0.	0.003	0.28	-2.	-1	0.	0.	3.	1.	0.45	0.	0.	98	-0.
20261	GTR31	STIL	0.	-0.002	0.	0.001	0.23	-1.	-0	0.	0.	2.	0.	0.46	-0.	0.	170.	-0.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
20261	GTR312	DISTIL	0.	-0.004	0.	0.003	0.32	-2.	-1.	0.	1.	3.	1.	0.48	0.	0.	98.	-0.
20261	GTR316	DISTIL	0.	-0.002	0.	0.001	0.23	-1.	-0.	0.	0.	2.	0.	0.46	-0.	0.	178.	-0.
20261	GTR316	DISTIL	0.	-0.004	0.	0.003	0.32	-2.	-1.	0.	1.	3.	1.	0.48	0.	0.	104.	-0.
20261	FCPADS	DISTIL	0.	-0.002	0.	0.001	0.25	0.	1.	0.	1.	2.	0.	0.72	0.	0.	121.	-0.
20261	FCPADS	DISTIL	0.	-0.004	0.	0.004	0.36	-0.	1.	0.	2.	6.	1.	0.86	1.	1.	79.	-0.
20261	FCMCDS	DISTIL	0.	-0.002	0.	0.001	0.23	-1.	0.	0.	-0.	2.	0.	0.44	-0.	0.	138.	-0.
20261	FCMCDS	DISTIL	0.	-0.007	0.	0.006	0.36	-7.	1.	-0.	-2.	8.	1.	0.46	1.	1.	95.	-1.
20461	STM141	RESIDU	0.	-0.076	0.	0.125	0.18	-26.	72.	-4.	34.	164.	-15.	0.26	36.	0.	-5.	-1.
20461	STM141	RESIDU	0.	-0.154	0.	0.255	0.28	-54.	41.	-8.	73.	244.	-10.	0.34	61.	20.	3.	1.
20461	STM141	COAL-F	0.	-0.076	0.	0.125	0.18	-26.	-45.	-4.	38.	64.	8.	0.16	14.	0.	22.	4.
20461	STM141	COAL-F	0.	-0.154	0.	0.255	0.28	-54.	-92.	-8.	78.	131.	16.	0.25	30.	20.	10.	6.
20461	STM141	COAL-A	0.	-0.076	0.	0.125	0.18	100.	-45.	-4.	164.	64.	8.	0.34	22.	0.	12.	5.
20461	STM141	COAL-A	0.	-0.154	0.	0.255	0.28	89.	-92.	-8.	221.	131.	16.	0.41	48.	20.	8.	8.
20461	STM088	RESIDU	0.	-0.076	0.	0.125	0.18	-26.	72.	-4.	34.	164.	-15.	0.26	41.	0.	-11.	-1.
20461	STM088	RESIDU	0.	-0.121	0.	0.201	0.24	-43.	54.	-6.	57.	211.	-12.	0.31	54.	11.	-2.	0.
20461	STM088	COAL-F	0.	-0.076	0.	0.125	0.18	-26.	-45.	-4.	38.	64.	8.	0.16	15.	0.	21.	4.
20461	STM088	COAL-F	0.	-0.121	0.	0.201	0.24	-43.	-73.	-6.	61.	104.	13.	0.22	24.	11.	18.	5.
20461	STM088	COAL-A	0.	-0.076	0.	0.125	0.18	100.	-45.	-4.	164.	64.	8.	0.34	24.	0.	10.	5.
20461	STM088	COAL-A	0.	-0.121	0.	0.201	0.24	94.	-73.	-6.	197.	104.	13.	0.39	39.	11.	7.	7.
20461	PFBSTM	COAL-P	0.	-0.077	0.	0.124	0.17	115.	-46.	5.	179.	64.	17.	0.37	13.	0.	25.	3.
20461	PFBSTM	COAL-P	0.	-0.226	0.	0.366	0.33	124.	-136.	15.	314.	188.	50.	0.52	52.	37.	17.	7.
20461	TISTMT	RESIDU	0.	-0.077	0.	0.123	0.17	-27.	71.	-4.	33.	163.	-16.	0.26	-4.	0.	45.	-7.
20461	TISTMT	RESIDU	0.	-0.294	0.	0.469	0.37	-103.	-15.	-15.	137.	378.	-2.	0.42	-21.	53.	48.	-13.
20461	TISTMT	COAL	0.	-0.077	0.	0.123	0.17	-27.	-46.	-4.	37.	63.	8.	0.16	-30.	0.	77.	-2.
20461	TISTMT	COAL	0.	-0.294	0.	0.469	0.37	-103.	-176.	-15.	143.	241.	30.	0.34	-60.	53.	57.	-7.
20461	TIHRSG	RESIDU	0.	-0.092	0.	0.109	0.15	-32.	66.	-5.	28.	157.	-17.	0.24	-32.	0.	82.	-11.
20461	TIHRSG	RESIDU	0.	-0.129	0.	0.152	0.19	-45.	51.	-6.	41.	186.	-15.	0.27	-45.	8.	82.	-13.
20461	TIHRSG	COAL	0.	-0.092	0.	0.109	0.15	-32.	-55.	-5.	32.	54.	7.	0.13	-66.	0.	123.	-7.
20461	TIHRSG	COAL	0.	-0.129	0.	0.152	0.19	-45.	-78.	-6.	45.	77.	10.	0.17	-78.	8.	107.	-8.
20461	STIRL	DISTIL	0.	-0.109	0.	0.092	0.13	36.	132.	15.	101.	242.	27.	0.53	27.	0.	16.	-9.
20461	STIRL	DISTIL	0.	-0.450	0.	0.381	0.28	-42.	36.	9.	225.	491.	58.	0.60	61.	59.	32.	-15.
20461	STIRL	RESIDU	0.	-0.109	0.	0.092	0.13	-38.	59.	-12.	22.	150.	-25.	0.21	27.	0.	12.	-4.
20461	STIRL	RESIDU	0.	-0.450	0.	0.381	0.28	-158.	-78.	-48.	103.	348.	-37.	0.32	61.	59.	28.	-7.
20461	STIRL	COAL	0.	-0.109	0.	0.092	0.13	-38.	-65.	-5.	27.	45.	6.	0.11	1.	0.	41.	2.
20461	STIRL	COAL	0.	-0.450	0.	0.381	0.28	-158.	-270.	-23.	110.	184.	27.	0.25	3.	59.	39.	-1.
20461	HEGT85	COAL-A	0.	-0.136	0.	0.065	0.09	82.	-82.	-7.	147.	28.	5.	0.26	-16.	0.	65.	-1.
20461	HEGT85	COAL-A	0.	-1.088	0.	0.517	0.24	-111.	-653.	-54.	405.	225.	41.	0.34	-8.	132.	44.	-12.
20461	HEGT60	COAL-A	0.	-0.137	0.	0.064	0.09	80.	-82.	-7.	145.	27.	5.	0.25	-14.	0.	62.	-1.
20461	HEGT60	COAL-A	0.	-0.633	0.	0.293	0.20	-29.	-380.	-32.	269.	127.	23.	0.31	-8.	68.	46.	-6.
20461	HEGT00	COAL-A	0.	-0.142	0.	0.058	0.08	74.	-85.	-7.	138.	24.	5.	0.24	-11.	0.	59.	-1.
20461	HEGT00	COAL-A	0.	-0.327	0.	0.134	0.14	27.	-196.	-16.	175.	56.	11.	0.26	-4.	24.	46.	-2.
20461	FCMCCL	COAL	0.	-0.093	0.	0.108	0.15	41.	71.	5.	106.	180.	17.	0.43	-10.	0.	54.	-0.
20461	FCMCCL	COAL	0.	-0.403	0.	0.466	0.34	179.	307.	23.	458.	782.	75.	1.00	16.	63.	36.	-0.
20461	FCSTCL	COAL	0.	-0.088	0.	0.112	0.16	23.	40.	3.	88.	150.	15.	0.36	-7.	0.	50.	0.
20461	FCSTCL	COAL	0.	-0.677	0.	0.857	0.42	178.	306.	23.	672.	1145.	113.	1.00	54.	125.	31.	2.
20461	IGGTST	COAL	0.	-0.109	0.	0.092	0.13	-38.	-65.	4.	26.	44.	16.	0.12	-3.	0.	46.	1.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****DIRECT FUEL SAVINGS**** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	----DIRECT EMISSIONS SAVINGS---- NOX	SOX	PART	********TOTAL EMISSIONS SAVINGS******** NOX	SOX	PART	CAPITL EMSR	ELECTRIC POWER--- SAVING	TOTAL EXPORT MWH	COST	LAEC SAVED
20461	IGGTST	COAL	0.	-0.596	0.	0.503	0.31	-209.	-358.	20.	145.	243.	85.	0.31	39.	84.	31.	2.
20461	GTSGAR	RESIDU	-0.615	0.512	-0.615	0.712	0.14	81.	76.	21.	145.	185.	33.	0.52	33.	0.	3.	-2.
20461	GTSGAR	RESIDU	-0.956	0.512	-0.956	1.378	0.31	-60.	-53.	18.	219.	421.	69.	0.54	90.	62.	20.	-3.
20461	GTAC08	RESIDU	0.	-0.095	0.	0.105	0.15	-93.	64.	-11.	-30.	156.	-23.	0.14	35.	0.	-1.	-2.
20461	GTAC08	RESIDU	0.	-0.343	0.	0.378	0.31	-334.	-35.	-40.	-108.	334.	-31.	0.16	86.	49.	14.	-1.
20461	GTAC12	RESIDU	0.	-0.093	0.	0.107	0.15	-85.	65.	-10.	-25.	156.	-23.	0.16	35.	0.	-1.	-2.
20461	GTAC12	RESIDU	0.	-0.409	0.	0.469	0.34	-373.	-61.	-45.	-98.	391.	-30.	0.20	96.	63.	16.	-1.
20461	GTAC16	RESIDU	0.	-0.094	0.	0.107	0.15	-82.	65.	-10.	-23.	156.	-22.	0.16	34.	0.	0.	-2.
20461	GTAC16	RESIDU	0.	-0.457	0.	0.521	0.35	-402.	-81.	-49.	-95.	425.	-29.	0.21	98.	73.	19.	-1.
20461	GTWC16	RESIDU	0.	-0.107	0.	0.093	0.13	-88.	60.	-11.	-29.	151.	-24.	0.14	34.	0.	3.	-3.
20461	GTWC16	RESIDU	0.	-0.567	0.	0.495	0.31	-468.	-124.	-57.	-134.	424.	-37.	0.17	114.	81.	20.	-3.
20461	CC1626	RESIDU	0.	-0.106	0.	0.095	0.13	-77.	60.	-10.	-17.	151.	-22.	0.16	34.	0.	3.	-3.
20461	CC1626	RESIDU	0.	-1.008	0.	0.898	0.37	-733.	-301.	-91.	-131.	696.	-39.	0.23	181.	160.	23.	-5.
20461	CC1622	RESIDU	0.	-0.102	0.	0.099	0.14	-76.	62.	-9.	-16.	153.	-22.	0.16	34.	0.	2.	-3.
20461	CC1622	RESIDU	0.	-0.871	0.	0.848	0.38	-651.	-246.	-80.	-108.	652.	-34.	0.24	159.	142.	23.	-4.
20461	CC1222	RESIDU	0.	-0.101	0.	0.100	0.14	-75.	62.	-9.	-15.	153.	-22.	0.17	34.	0.	2.	-2.
20461	CC1222	RESIDU	0.	-0.862	0.	0.855	0.38	-645.	-243.	-80.	-103.	655.	-33.	0.25	164.	142.	22.	-3.
20461	CC0822	RESIDU	0.	-0.094	0.	0.107	0.15	-75.	65.	-9.	-15.	156.	-21.	0.17	34.	0.	0.	-2.
20461	CC0822	RESIDU	0.	-0.650	0.	0.738	0.39	-518.	-157.	-63.	-80.	567.	-28.	0.26	139.	111.	19.	-1.
20461	STIG15	RESIDU	0.	-0.166	0.	0.035	0.05	-100.	36.	-5.	-41.	125.	-20.	0.09	30.	0.	18.	-5.
20461	STIG15	RESIDU	0.	-32.945	0.	6.889	0.17	-19895.	-13076.	-978.	-7330.	7706.	42.	0.01	3200.	3717.	38.	-552.
20461	STIG10	RESIDU	0.	-0.151	0.	0.050	0.07	-97.	42.	-4.	-38.	132.	-19.	0.11	31.	0.	14.	-5.
20461	STIG10	RESIDU	0.	-2.771	0.	0.913	0.22	-1790.	-1006.	-73.	-630.	910.	14.	0.07	316.	327.	34.	-41.
20461	STIG1S	RESIDU	0.	-0.144	0.	0.057	0.08	-98.	45.	-3.	-39.	135.	-18.	0.11	35.	0.	9.	-4.
20461	STIG1S	RESIDU	0.	-1.552	0.	0.610	0.23	-1059.	-518.	-36.	-379.	602.	9.	0.09	197.	184.	31.	-22.
20461	DEADV3	RESIDU	0.	-0.121	0.	0.079	0.11	-146.	54.	-11.	-86.	145.	-24.	0.05	25.	0.	17.	-4.
20461	DEADV3	RESIDU	0.	-1.200	0.	0.785	0.31	-1447.	-378.	-105.	-822.	656.	-56.	-0.09	86.	167.	38.	-23.
20461	DEHTPM	RESIDU	0.	-0.085	0.	0.116	0.16	-135.	68.	-9.	-75.	160.	-21.	0.09	25.	0.	10.	-3.
20461	DEHTPM	RESIDU	0.	-0.478	0.	0.651	0.40	-761.	-89.	-50.	-405.	499.	-23.	0.05	63.	87.	29.	-6.
20461	DESGA3	DISTIL	-0.643	0.512	-0.643	0.712	0.10	-170.	202.	26.	-111.	293.	12.	0.26	20.	0.	30.	-11.
20461	DESGA3	DISTIL	-1.977	0.512	-1.977	2.741	0.28	-3576.	-14.	26.	-2874.	1146.	79.	-0.64	42.	190.	52.	-53.
20461	DESGA3	RESIDU	-0.643	0.512	-0.643	0.712	0.10	-592.	65.	20.	-528.	174.	32.	-0.46	20.	0.	25.	-5.
20461	DESGA3	RESIDU	-1.977	0.512	-1.977	2.741	0.28	-7826.	-437.	10.	-7109.	782.	142.	-2.40	42.	190.	46.	-37.
20461	GTSGAD	DISTIL	-0.608	0.512	-0.608	0.712	0.15	125.	208.	26.	185.	300.	13.	0.71	36.	0.	2.	-7.
20461	GTSGAD	DISTIL	-0.913	0.512	-0.913	1.345	0.32	-4.	159.	26.	258.	587.	38.	0.69	97.	59.	19.	-8.
20461	GTRA08	DISTIL	0.	-0.100	0.	0.100	0.14	8.	135.	15.	72.	244.	27.	0.49	33.	0.	7.	-7.
20461	GTRA08	DISTIL	0.	-0.643	0.	0.645	0.36	-283.	-18.	6.	132.	686.	82.	0.53	118.	102.	26.	-13.
20461	GTRA12	DISTIL	0.	-0.099	0.	0.102	0.14	8.	135.	15.	73.	245.	27.	0.49	32.	0.	7.	-7.
20461	GTRA12	DISTIL	0.	-0.630	0.	0.647	0.36	-278.	-14.	6.	133.	684.	82.	0.53	118.	101.	26.	-13.
20461	GTRA16	DISTIL	0.	-0.099	0.	0.102	0.14	7.	135.	15.	72.	245.	27.	0.49	32.	0.	8.	-8.
20461	GTRA16	DISTIL	0.	-0.594	0.	0.612	0.36	-263.	-4.	7.	125.	655.	78.	0.53	109.	94.	26.	-13.
20461	GTR208	DISTIL	0.	-0.099	0.	0.101	0.14	4.	135.	15.	69.	245.	27.	0.49	34.	0.	6.	-7.
20461	GTR208	DISTIL	0.	-0.504	0.	0.512	0.34	-227.	21.	8.	100.	576.	68.	0.51	102.	76.	24.	-11.
20461	GTR212	DISTIL	0.	-0.100	0.	0.100	0.14	5.	135.	15.	70.	244.	27.	0.49	33.	0.	7.	-7.
20461	GTR212	DISTIL	0.	-0.546	0.	0.545	0.34	-244.	[illegible]	8.	107.	606.	72.	0.52	106.	83.	25.	-12.
20461	GTR21[illegible]	ISTIL	0.	-0.098	0.	0.102	0.14	6.	13[illegible]	15.	71.	245.	27.	0.49	32.	0.	7.	-7.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
20461	GTR216	DISTIL	0.	-0.547	0.	0.568	0.35	-245.	9.	8.	114.	619.	74.	0.52	105.	86.	25.	-12.
20461	GTRW08	DISTIL	0.	-0.117	0.	0.084	0.12	3.	130.	15.	68.	240.	27.	0.48	33.	0.	10.	-8.
20461	GTRW08	DISTIL	0.	-0.903	0.	0.649	0.31	-387.	-91.	2.	112.	757.	93.	0.49	146.	127.	29.	-19.
20461	GTRW12	DISTIL	0.	-0.112	0.	0.088	0.12	6.	131.	15.	70.	241.	27.	0.48	33.	0.	9.	-8.
20461	GTRW12	DISTIL	0.	-0.896	0.	0.705	0.33	-384.	-89.	2.	131.	786.	96.	0.51	151.	131.	28.	-18.
20461	GTRW16	DISTIL	0.	-0.112	0.	0.089	0.12	5.	132.	15.	70.	241.	27.	0.48	32.	0.	10.	-8.
20461	GTRW16	DISTIL	0.	-0.836	0.	0.668	0.33	-360.	-72.	3.	124.	750.	92.	0.51	140.	122.	29.	-17.
20461	GTR308	DISTIL	0.	-0.119	0.	0.081	0.11	-1.	129.	15.	63.	239.	27.	0.47	34.	0.	10.	-8.
20461	GTR308	DISTIL	0.	-0.693	0.	0.474	0.28	-303.	-32.	5.	73.	606.	74.	0.47	116.	91.	28.	-16.
20461	GTR312	DISTIL	0.	-0.111	0.	0.090	0.13	4.	132.	15.	68.	241.	27.	0.48	34.	0.	8.	-8.
20461	GTR312	DISTIL	0.	-0.742	0.	0.598	0.32	-322.	-46.	4.	109.	687.	84.	0.50	131.	107.	27.	-15.
20461	GTR316	DISTIL	0.	-0.112	0.	0.089	0.12	4.	132.	15.	68.	241.	27.	0.48	33.	0.	9.	-8.
20461	GTR316	DISTIL	0.	-0.735	0.	0.586	0.32	-319.	-44.	4.	105.	678.	83.	0.50	127.	105.	28.	-16.
20461	FCPADS	DISTIL	0.	-0.135	0.	0.065	0.09	36.	172.	17.	101.	282.	29.	0.59	23.	0.	37.	-12.
20461	FCPADS	DISTIL	0.	-2.047	0.	0.991	0.28	-320.	307.	26.	658.	1969.	205.	0.85	144.	266.	56.	-92.
20461	FCMCDS	DISTIL	0.	-0.113	0.	0.087	0.12	-46.	175.	15.	18.	284.	27.	0.47	22.	0.	33.	-11.
20461	FCMCDS	DISTIL	0.	-1.355	0.	1.048	0.36	-1230.	304.	-2.	-457.	1619.	140.	0.47	106.	207.	51.	-62.
20631	STM141	RESIDU	0.	-0.005	0.	0.009	0.10	-2.	13.	-0.	2.	19.	-3.	0.20	13.	0.	-147.	0.
20631	STM141	RESIDU	0.	-0.030	0.	0.049	0.31	-10.	4.	-1.	14.	44.	-1.	0.38	26.	6.	-3.	0.
20631	STM141	COAL-F	0.	-0.005	0.	0.009	0.10	-2.	-3.	-0.	3.	5.	1.	0.09	-2.	0.	144.	-1.
20631	STM141	COAL-F	0.	-0.030	0.	0.049	0.31	-10.	-18.	-1.	15.	25.	3.	0.29	13.	6.	37.	-0.
20631	STM141	COAL-A	0.	-0.005	0.	0.009	0.10	16.	-3.	-0.	21.	5.	1.	0.28	-1.	0.	113.	-1.
20631	STM141	COAL-A	0.	-0.030	0.	0.049	0.31	13.	-18.	-1.	38.	25.	3.	0.44	21.	6.	11.	1.
20631	STM088	RESIDU	0.	-0.005	0.	0.009	0.10	-2.	13.	-0.	2.	19.	-3.	0.20	13.	0.	-150.	0.
20631	STM088	RESIDU	0.	-0.024	0.	0.039	0.28	-8.	6.	-1.	11.	37.	-2.	0.35	23.	5.	-13.	0.
20631	STM088	COAL-F	0.	-0.005	0.	0.009	0.10	-2.	-3.	-0.	3.	5.	1.	0.09	-2.	0.	145.	-1.
20631	STM088	COAL-F	0.	-0.024	0.	0.039	0.28	-8.	-14.	-1.	12.	20.	3.	0.25	10.	5.	37.	0.
20631	STM088	COAL-A	0.	-0.005	0.	0.009	0.10	16.	-3.	-0.	21.	5.	1.	0.28	-1.	0.	112.	-1.
20631	STM088	COAL-A	0.	-0.024	0.	0.039	0.28	14.	-14.	-1.	34.	20.	3.	0.41	17.	5.	8.	1.
20631	PFBSTM	COAL-P	0.	-0.005	0.	0.009	0.09	16.	-3.	-0.	21.	4.	1.	0.28	-2.	0.	136.	-1.
20631	PFBSTM	COAL-P	0.	-0.044	0.	0.071	0.37	18.	-26.	2.	55.	37.	9.	0.54	17.	9.	42.	-0.
20631	TISTMT	RESIDU	0.	-0.005	0.	0.009	0.09	-2.	13.	-0.	2.	19.	-3.	0.20	2.	0.	40.	-1.
20631	TISTMT	RESIDU	0.	-0.045	0.	0.071	0.37	-16.	-2.	-2.	21.	57.	-0.	0.42	-21.	10.	126.	-7.
20631	TISTMT	COAL	0.	-0.005	0.	0.009	0.09	-2.	-3.	-0.	3.	4.	1.	0.08	-12.	0.	311.	-2.
20631	TISTMT	COAL	0.	-0.057	0.	0.091	0.40	-20.	-34.	-3.	28.	47.	6.	0.37	-46.	13.	154.	-9.
20631	TIHRSG	RESIDU	0.	-0.006	0.	0.008	0.08	-2.	13.	-0.	2.	18.	-3.	0.19	-5.	0.	169.	-2.
20631	TIHRSG	RESIDU	0.	-0.020	0.	0.023	0.19	-7.	8.	-1.	6.	28.	-2.	0.27	-26.	3.	231.	-5.
20631	TIHRSG	COAL	0.	-0.006	0.	0.008	0.08	-2.	-4.	-0.	2.	4.	1.	0.07	-22.	0.	493.	-3.
20631	TIHRSG	COAL	0.	-0.025	0.	0.030	0.22	-9.	-15.	-1.	9.	15.	2.	0.20	-50.	4.	306.	-8.
20631	STIRL	DISTIL	0.	-0.008	0.	0.006	0.07	8.	23.	2.	12.	30.	3.	0.50	10.	0.	-96.	-1.
20631	STIRL	DISTIL	0.	-0.068	0.	0.058	0.28	-6.	6.	1.	34.	75.	9.	0.60	23.	11.	45.	-3.
20631	STIRL	RESIDU	0.	-0.008	0.	0.006	0.07	-3.	13.	-0.	1.	18.	-3.	0.17	10.	0.	-100.	0.
20631	STIRL	RESIDU	0.	-0.068	0.	0.058	0.28	-24.	-12.	-7.	16.	53.	-5.	0.33	23.	11.	41.	-2.
20631	STIRL	COAL	0.	-0.008	0.	0.006	0.07	-3.	-5.	-0.	2.	3.	0.	0.06	-3.	0.	147.	-1.
20631	STIRL	COAL	0.	-0.087	0.	0.074	0.31	-31.	-52.	-4.	21.	36.	5.	0.27	1.	14.	78.	-4.
20631	HEGT85	COAL-A	0.	-0.010	0.	0.005	0.05	15.	-6.	-0.	20.	2.	0.	0.25	-9.	0.	247.	-2.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
20631	HEGT85	COAL-A	0.	-0.211	0.	0.100	0.26	-25.	-127.	-11.	75.	44.	8.	0.34	-30.	28.	106.	-13.
20631	HEGT60	COAL-A	0.	-0.010	0.	0.004	0.05	15.	-6.	-0.	20.	2.	0.	0.24	-8.	0.	241.	-1.
20631	HEGT60	COAL-A	0.	-0.123	0.	0.057	0.22	-9.	-74.	-6.	49.	25.	4.	0.32	-21.	16.	111.	-8.
20631	HEGT00	COAL-A	0.	-0.010	0.	0.004	0.04	15.	-6.	-0.	20.	2.	0.	0.24	-8.	0.	234.	-1.
20631	HEGT00	COAL-A	0.	-0.063	0.	0.026	0.16	2.	-38.	-3.	30.	11.	2.	0.27	-13.	7.	117.	-4.
20631	FCMCCL	COAL	0.	-0.099	0.	0.069	0.28	27.	47.	3.	81.	139.	13.	1.00	-5.	14.	90.	-6.
20631	FCSTCL	COAL	0.	-0.153	0.	0.145	0.39	27.	47.	3.	123.	209.	21.	1.00	8.	27.	73.	-7.
20631	IGGTST	COAL	0.	-0.137	0.	0.076	0.26	-48.	-82.	3.	21.	34.	15.	0.26	6.	19.	74.	-5.
20631	GTSOAR	RESIDU	-0.085	0.078	-0.085	0.092	0.07	18.	15.	3.	22.	22.	4.	0.54	11.	0.	-115.	0.
20631	GTSOAR	RESIDU	-0.145	0.078	-0.145	0.209	0.31	-6.	-8.	3.	36.	64.	11.	0.55	32.	11.	23.	-1.
20631	GTAC08	RESIDU	0.	-0.007	0.	0.007	0.08	-2.	13.	-0.	2.	18.	-3.	0.18	11.	0.	-126.	0.
20631	GTAC08	RESIDU	0.	-0.052	0.	0.057	0.31	-45.	-5.	-5.	-11.	51.	-4.	0.20	30.	9.	14.	-0.
20631	GTAC12	RESIDU	0.	-0.007	0.	0.007	0.08	-2.	13.	-0.	2.	18.	-3.	0.19	11.	0.	-127.	0.
20631	GTAC12	RESIDU	0.	-0.062	0.	0.071	0.34	-51.	-9.	-6.	-10.	59.	-4.	0.23	34.	11.	19.	-0.
20631	GTAC16	RESIDU	0.	-0.007	0.	0.007	0.08	-2.	13.	-0.	2.	18.	-3.	0.18	11.	0.	-125.	0.
20631	GTAC16	RESIDU	0.	-0.069	0.	0.079	0.35	-56.	-12.	-7.	-9.	65.	-4.	0.24	36.	13.	23.	-1.
20631	GTWC16	RESIDU	0.	-0.007	0.	0.007	0.07	-3.	13.	-0.	1.	18.	-3.	0.18	11.	0.	-117.	0.
20631	GTWC16	RESIDU	0.	-0.086	0.	0.075	0.31	-66.	-19.	-8.	-15.	64.	-5.	0.19	39.	14.	25.	-1.
20631	CC1626	RESIDU	0.	-0.007	0.	0.007	0.07	-3.	13.	-0.	1.	18.	-3.	0.18	11.	0.	-114.	0.
20631	CC1626	RESIDU	0.	-0.153	0.	0.136	0.37	-106.	-46.	-13.	-15.	106.	-5.	0.25	63.	26.	31.	-2.
20631	CC1622	RESIDU	0.	-0.007	0.	0.007	0.08	-2.	13.	-0.	1.	18.	-3.	0.18	11.	0.	-120.	0.
20631	CC1622	RESIDU	0.	-0.132	0.	0.129	0.38	-93.	-37.	-12.	-11.	99.	-5.	0.26	56.	23.	32.	-2.
20631	CC1222	RESIDU	0.	-0.007	0.	0.007	0.08	-2.	13.	-0.	1.	18.	-3.	0.18	11.	0.	-122.	0.
20631	CC1222	RESIDU	0.	-0.131	0.	0.130	0.38	-93.	-37.	-12.	-10.	100.	-4.	0.27	58.	23.	30.	-2.
20631	CC0822	RESIDU	0.	-0.007	0.	0.007	0.08	-2.	13.	-0.	2.	18.	-3.	0.18	11.	0.	-120.	0.
20631	CC0822	RESIDU	0.	-0.099	0.	0.112	0.39	-73.	-24.	-9.	-7.	86.	-4.	0.28	49.	18.	26.	-1.
20631	STIG15	RESIDU	0.	-0.012	0.	0.002	0.03	-4.	11.	-1.	-0.	16.	-3.	0.14	8.	0.	-57.	-0.
20631	STIG15	RESIDU	0.	-5.005	0.	1.047	0.17	-3017.	-1987.	-149.	-1108.	1171.	6.	0.01	1132.	566.	50.	-123.
20631	STIG10	RESIDU	0.	-0.011	0.	0.003	0.04	-4.	11.	-1.	0.	16.	-3.	0.15	11.	0.	-117.	0.
20631	STIG10	RESIDU	0.	-0.421	0.	0.139	0.22	-267.	-153.	-12.	-90.	138.	2.	0.08	114.	51.	43.	-9.
20631	STIG1S	RESIDU	0.	-0.010	0.	0.004	0.04	-4.	12.	-1.	-0.	17.	-3.	0.15	11.	0.	-119.	0.
20631	STIG1S	RESIDU	0.	-0.236	0.	0.093	0.23	-156.	-79.	-6.	-52.	91.	1.	0.11	69.	29.	40.	-5.
20631	DEADV3	RESIDU	0.	-0.008	0.	0.006	0.06	-3.	12.	-0.	1.	17.	-3.	0.17	8.	0.	-62.	-0.
20631	DEADV3	RESIDU	0.	-0.182	0.	0.119	0.31	-207.	-57.	-15.	-112.	100.	-8.	-0.06	31.	27.	63.	-8.
20631	DEHTPM	RESIDU	0.	-0.006	0.	0.008	0.09	-2.	13.	-0.	2.	18.	-3.	0.19	8.	0.	-69.	-0.
20631	DEHTPM	RESIDU	0.	-0.073	0.	0.099	0.40	-103.	-13.	-7.	-49.	76.	-3.	0.10	24.	15.	48.	-3.
20631	DESOA3	DISTIL	-0.087	0.078	-0.087	0.092	0.05	25.	33.	4.	29.	38.	1.	0.75	9.	0.	-70.	-1.
20631	DESOA3	DISTIL	-0.300	0.078	-0.300	0.417	0.28	-503.	-2.	4.	-396.	174.	12.	-0.54	15.	30.	84.	-14.
20631	DESOA3	RESIDU	-0.087	0.078	-0.087	0.092	0.05	18.	14.	3.	22.	22.	4.	0.53	9.	0.	-75.	-0.
20631	DESOA3	RESIDU	-0.300	0.078	-0.300	0.417	0.28	-1105.	-66.	1.	-996.	119.	22.	-2.18	15.	30.	79.	-12.
20631	GTSOAD	DISTIL	-0.085	0.078	-0.085	0.092	0.08	25.	33.	4.	29.	38.	1.	0.75	11.	0.	-126.	-0.
20631	GTSOAD	DISTIL	-0.139	0.078	-0.139	0.204	0.32	3.	24.	4.	43.	89.	6.	0.71	35.	11.	19.	-1.
20631	GTRA08	DISTIL	0.	-0.007	0.	0.007	0.08	8.	23.	2.	12.	30.	3.	0.51	11.	0.	-109.	-1.
20631	GTRA08	DISTIL	0.	-0.098	0.	0.098	0.36	-39.	-3.	1.	24.	104.	12.	0.54	41.	17.	3[illegible]	-3.
20631	GTRA12	DISTIL	0.	-0.007	0.	0.007	0.08	8.	[illegible]	2.	12.	30.	3.	0.51	11.	0.	-1[illegible]	-1.
20631	GTRA[illegible]	DISTIL	0.	-0.096	0.	0.098	0.36	-39.	[illegible]	1.	24.	104.	12.	0.54	42.	17.	3[illegible]	-3.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	******** TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
20631	GTRA16	DISTIL	0.	-0.007	0.	0.007	0.08	8.	23.	2.	12.	30.	3.	0.51	10.	0.	-107.	-1.
20631	GTRA16	DISTIL	0.	-0.090	0.	0.093	0.36	-36.	-1.	1.	23.	100.	12.	0.54	39.	16.	35.	-3.
20631	GTR208	DISTIL	0.	-0.007	0.	0.007	0.08	8.	23.	2.	12.	30.	3.	0.51	11.	0.	-115.	-1.
20631	GTR208	DISTIL	0.	-0.077	0.	0.078	0.34	-31.	3.	1.	19.	88.	10.	0.53	37.	13.	28.	-2.
20631	GTR212	DISTIL	0.	-0.007	0.	0.007	0.08	8.	23.	2.	12.	30.	3.	0.51	11.	0.	-112.	-1.
20631	GTR212	DISTIL	0.	-0.083	0.	0.083	0.34	-33.	1.	1.	20.	92.	11.	0.53	38.	14.	31.	-2.
20631	GTR216	DISTIL	0.	-0.007	0.	0.007	0.08	8.	23.	2.	12.	30.	3.	0.51	11.	0.	-111.	-1.
20631	GTR216	DISTIL	0.	-0.083	0.	0.086	0.35	-34.	1.	1.	21.	94.	11.	0.54	37.	15.	33.	-3.
20631	GTRW08	DISTIL	0.	-0.008	0.	0.006	0.06	7.	22.	2.	12.	30.	3.	0.50	10.	0.	-104.	-1.
20631	GTRW08	DISTIL	0.	-0.137	0.	0.099	0.31	-55.	-14.	0.	21.	115.	14.	0.51	52.	21.	37.	-4.
20631	GTRW12	DISTIL	0.	-0.008	0.	0.006	0.07	8.	23.	2.	12.	30.	3.	0.50	10.	0.	-106.	-1.
20631	GTRW12	DISTIL	0.	-0.136	0.	0.107	0.33	-55.	-14.	0.	24.	119.	15.	0.52	53.	21.	36.	-4.
20631	GTRW16	DISTIL	0.	-0.008	0.	0.006	0.07	8.	23.	2.	12.	30.	3.	0.50	10.	0.	-103.	-1.
20631	GTRW16	DISTIL	0.	-0.127	0.	0.101	0.33	-51.	-11.	0.	22.	114.	14.	0.52	49.	20.	37.	-4.
20631	GTR308	DISTIL	0.	-0.008	0.	0.006	0.06	7.	22.	2.	12.	30.	3.	0.50	11.	0.	-109.	-1.
20631	GTR308	DISTIL	0.	-0.105	0.	0.072	0.28	-42.	-5.	1.	15.	92.	11.	0.49	41.	15.	34.	-3.
20631	GTR312	DISTIL	0.	-0.008	0.	0.006	0.07	8.	23.	2.	12.	30.	3.	0.50	11.	0.	-110.	-1.
20631	GTR312	DISTIL	0.	-0.113	0.	0.091	0.32	-45.	-7.	1.	20.	104.	13.	0.51	47.	18.	33.	-3.
20631	GTR316	DISTIL	0.	-0.008	0.	0.006	0.07	8.	23.	2.	12.	30.	3.	0.50	10.	0.	-105.	-1.
20631	GTR316	DISTIL	0.	-0.112	0.	0.089	0.32	-45.	-7.	1.	20.	103.	13.	0.51	45.	17.	35.	-3.
20631	FCPADS	DISTIL	0.	-0.009	0.	0.005	0.05	7.	22.	2.	12.	30.	3.	0.49	10.	0.	-82.	-1.
20631	FCPADS	DISTIL	0.	-0.311	0.	0.151	0.28	-49.	41.	4.	99.	293.	31.	0.84	51.	42.	79.	-20.
20631	FCMCDS	DISTIL	0.	-0.008	0.	0.006	0.07	8.	23.	2.	12.	30.	3.	0.50	10.	0.	-84.	-1.
20631	FCMCDS	DISTIL	0.	-0.206	0.	0.109	0.36	-176.	40.	-0.	-58.	240.	21.	0.49	38.	33.	75.	-14.
20821	STM141	RESIDU	0.	-0.016	0.	0.027	0.24	-20.	7.	-1.	-7.	28.	-2.	0.21	5.	0.	12.	-0.
20821	STM141	RESIDU	0.	-0.020	0.	0.033	0.28	-21.	5.	-1.	-5.	32.	-1.	0.25	7.	1.	8.	0.
20821	STM141	COAL-F	0.	-0.016	0.	0.027	0.24	-20.	-10.	-1.	-6.	14.	2.	0.10	-2.	0.	53.	0.
20821	STM141	COAL-F	0.	-0.020	0.	0.033	0.28	-21.	-12.	-1.	-4.	17.	2.	0.15	1.	1.	34.	1.
20821	STM141	COAL-A	0.	-0.016	0.	0.027	0.24	-2.	-10.	-1.	12.	14.	2.	0.29	0.	0.	40.	0.
20821	STM141	COAL-A	0.	-0.020	0.	0.033	0.28	-3.	-12.	-1.	14.	17.	2.	0.33	3.	1.	22.	1.
20821	STM088	RESIDU	0.	-0.016	0.	0.026	0.24	-20.	7.	-1.	-7.	28.	-2.	0.21	6.	0.	3.	0.
20821	STM088	COAL-F	0.	-0.016	0.	0.026	0.24	-20.	-10.	-1.	-6.	14.	2.	0.10	1.	0.	35.	1.
20821	STM088	COAL-A	0.	-0.016	0.	0.026	0.24	-2.	-10.	-1.	11.	14.	2.	0.29	3.	0.	22.	1.
20821	PFBSTM	COAL-P	0.	-0.016	0.	0.026	0.24	1.	-10.	1.	15.	14.	4.	0.35	-4.	0.	66.	-0.
20821	PFBSTM	COAL-P	0.	-0.030	0.	0.048	0.33	2.	-18.	2.	27.	25.	6.	0.46	1.	3.	38.	0.
20821	TISTMT	RESIDU	0.	-0.016	0.	0.026	0.24	-20.	7.	-1.	-7.	28.	-2.	0.21	-8.	0.	89.	-2.
20821	TISTMT	RESIDU	0.	-0.038	0.	0.061	0.37	-28.	-2.	-2.	3.	49.	-0.	0.36	-15.	5.	78.	-3.
20821	TISTMT	COAL	0.	-0.016	0.	0.026	0.24	-20.	-10.	-1.	-6.	13.	2.	0.09	-16.	0.	141.	-2.
20821	TISTMT	COAL	0.	-0.038	0.	0.061	0.37	-28.	-23.	-2.	4.	31.	4.	0.27	-24.	5.	97.	-3.
20821	TIHRSG	RESIDU	0.	-0.017	0.	0.020	0.18	-20.	7.	-1.	-9.	24.	-2.	0.14	-15.	0.	129.	-3.
20821	TIHRSG	COAL	0.	-0.017	0.	0.020	0.18	-20.	-10.	-1.	-8.	10.	1.	0.03	-22.	0.	171.	-3.
20821	STIRL	DISTIL	0.	-0.020	0.	0.022	0.20	-11.	16.	2.	3.	39.	4.	0.50	5.	0.	19.	-1.
20821	STIRL	DISTIL	0.	-0.058	0.	0.065	0.34	-20.	5.	1.	20.	72.	9.	0.60	10.	8.	27.	-1.
20821	STIRL	RESIDU	0.	-0.020	0.	0.022	0.20	-21.	5.	-2.	-8.	26.	-3.	0.16	5.	0.	15.	-0.
20821	STIRL	RESIDU	0.	-0.058	0.	0.065	0.34	-35.	-10.	-6.	4.	54.	-4.	0.32	10.	8.	23.	-0.
20821	STIRL	COAL	0.	-0.020	0.	0.022	0.20	-21.	-12.	-1.	-8.	11.	2.	0.05	-2.	0.	56.	-0.

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
20821	STIRL	COAL	0.	-0.058	0.	0.065	0.34	-35.	-35.	-3.	5.	32.	4.	0.25	3.	8.	34.	0.
20821	HEGT85	COAL-A	0.	-0.021	0.	0.021	0.20	-5.	-13.	-1.	9.	11.	1.	0.23	-12.	0.	115.	-1.
20821	HEGT85	COAL-A	0.	-0.066	0.	0.067	0.34	-15.	-39.	-3.	28.	33.	5.	0.37	-18.	8.	72.	-2.
20821	HEGT60	COAL-A	0.	-0.029	0.	0.013	0.12	-6.	-17.	-1.	7.	6.	1.	0.15	-12.	0.	118.	-2.
20821	HEGT60	COAL-A	0.	-0.083	0.	0.038	0.20	-18.	-50.	-4.	21.	17.	3.	0.25	-16.	7.	77.	-3.
20821	HEGT00	COAL-A	0.	-0.030	0.	0.012	0.11	-8.	-18.	-2.	6.	5.	1.	0.13	-10.	0.	107.	-1.
20821	HEGT00	COAL-A	0.	-0.043	0.	0.018	0.14	-11.	-26.	-2.	9.	7.	1.	0.16	-10.	2.	82.	-1.
20821	FCMCCL	COAL	0.	-0.020	0.	0.023	0.21	-6.	15.	1.	8.	38.	4.	0.54	-9.	0.	100.	-1.
20821	FCMCCL	COAL	0.	-0.053	0.	0.061	0.34	9.	40.	3.	45.	102.	10.	1.00	-9.	7.	60.	-1.
20821	FCSTCL	COAL	0.	-0.019	0.	0.024	0.22	-9.	8.	1.	4.	32.	3.	0.43	-9.	0.	97.	-1.
20821	FCSTCL	COAL	0.	-0.088	0.	0.112	0.42	9.	40.	3.	73.	149.	15.	1.00	-8.	15.	49.	-2.
20821	IGGTST	COAL	0.	-0.023	0.	0.019	0.18	-22.	-14.	1.	-9.	9.	3.	0.04	-9.	0.	99.	-1.
20821	IGGTST	COAL	0.	-0.078	0.	0.066	0.31	-42.	-47.	3.	5.	32.	11.	0.26	-7.	9.	53.	-1.
20821	GTSOAR	RESIDU	-0.089	0.067	-0.089	0.109	0.19	-7.	7.	3.	6.	30.	5.	0.45	4.	0.	19.	-0.
20821	GTSOAR	RESIDU	-0.125	0.067	-0.125	0.180	0.31	-22.	-7.	2.	14.	55.	9.	0.50	10.	7.	22.	-0.
20821	GTAC08	RESIDU	0.	-0.020	0.	0.022	0.20	-34.	5.	-2.	-21.	26.	-3.	0.02	5.	0.	13.	-0.
20821	GTAC08	RESIDU	0.	-0.045	0.	0.049	0.31	-58.	-5.	-5.	-28.	44.	-4.	0.08	10.	5.	16.	0.
20821	GTAC12	RESIDU	0.	-0.020	0.	0.023	0.21	-32.	5.	-2.	-19.	26.	-3.	0.04	5.	0.	13.	-0.
20821	GTAC12	RESIDU	0.	-0.053	0.	0.061	0.34	-63.	-8.	-6.	-27.	51.	-4.	0.13	11.	7.	18.	0.
20821	GTAC16	RESIDU	0.	-0.020	0.	0.023	0.21	-32.	5.	-2.	-19.	26.	-3.	0.05	5.	0.	15.	-0.
20821	GTAC16	RESIDU	0.	-0.060	0.	0.068	0.35	-67.	-11.	-6.	-27.	55.	-4.	0.15	12.	8.	20.	0.
20821	GTWC16	RESIDU	0.	-0.023	0.	0.020	0.18	-33.	4.	-2.	-20.	25.	-3.	0.02	4.	0.	19.	-0.
20821	GTWC16	RESIDU	0.	-0.074	0.	0.065	0.31	-75.	-16.	-7.	-32.	55.	-5.	0.10	12.	9.	24.	-0.
20821	CC1626	RESIDU	0.	-0.022	0.	0.020	0.18	-31.	4.	-2.	-18.	25.	-3.	0.05	4.	0.	22.	-0.
20821	CC1626	RESIDU	0.	-0.132	0.	0.117	0.37	-110.	-39.	-12.	-31.	91.	-5.	0.19	20.	19.	27.	-1.
20821	CC1622	RESIDU	0.	-0.022	0.	0.021	0.19	-30.	5.	-2.	-17.	25.	-3.	0.05	5.	0.	20.	-0.
20821	CC1622	RESIDU	0.	-0.114	0.	0.111	0.38	-99.	-32.	-10.	-28.	85.	-4.	0.20	18.	17.	26.	-1.
20821	CC1222	RESIDU	0.	-0.021	0.	0.021	0.19	-30.	5.	-2.	-17.	25.	-3.	0.06	5.	0.	18.	-0.
20821	CC1222	RESIDU	0.	-0.113	0.	0.112	0.38	-99.	-32.	-10.	-28.	86.	-4.	0.21	19.	17.	25.	-1.
20821	CC0822	RESIDU	0.	-0.020	0.	0.023	0.21	-30.	5.	-2.	-17.	26.	-3.	0.06	5.	0.	18.	-0.
20821	CC0822	RESIDU	0.	-0.085	0.	0.096	0.39	-82.	-21.	-8.	-25.	74.	-4.	0.21	16.	13.	23.	-0.
20821	STIG15	RESIDU	0.	-0.035	0.	0.007	0.07	-36.	-1.	-1.	-23.	19.	-3.	-0.06	4.	0.	32.	-1.
20821	STIG15	RESIDU	0.	-4.299	0.	0.899	0.17	-2611.	-1706.	-128.	-971.	1006.	5.	0.01	401.	484.	39.	-74.
20821	STIG10	RESIDU	0.	-0.032	0.	0.011	0.10	-35.	1.	-1.	-22.	21.	-2.	-0.04	5.	0.	27.	-1.
20821	STIG10	RESIDU	0.	-0.362	0.	0.119	0.22	-248.	-131.	-10.	-97.	119.	2.	0.05	39.	41.	35.	-5.
20821	STIG1S	RESIDU	0.	-0.031	0.	0.012	0.11	-35.	1.	-1.	-22.	21.	-2.	-0.03	5.	0.	25.	-1.
20821	STIG1S	RESIDU	0.	-0.202	0.	0.080	0.23	-153.	-68.	-5.	-64.	79.	1.	0.05	24.	22.	33.	-3.
20821	DEADV3	RESIDU	0.	-0.021	0.	0.022	0.20	-44.	5.	-2.	-31.	25.	-3.	-0.08	2.	0.	30.	-0.
20821	DEADV3	RESIDU	0.	-0.085	0.	0.091	0.37	-136.	-21.	-8.	-80.	71.	-4.	-0.06	10.	13.	31.	-1.
20821	DEHTPM	RESIDU	0.	-0.018	0.	0.025	0.22	-43.	6.	-2.	-30.	27.	-3.	-0.06	3.	0.	28.	-0.
20821	DEHTPM	RESIDU	0.	-0.062	0.	0.085	0.40	-114.	-12.	-7.	-67.	65.	-3.	-0.03	9.	10.	28.	-0.
20821	DESOA3	DISTIL	-0.088	0.067	-0.088	0.109	0.19	-64.	26.	3.	-51.	46.	2.	-0.02	3.	0.	31.	-1.
20821	DESOA3	DISTIL	-0.155	0.067	-0.155	0.242	0.36	-286.	15.	3.	-231.	106.	7.	-0.55	6.	12.	41.	-3.
20821	DESOA3	RESIDU	-0.088	0.067	-0.088	0.109	0.19	-149.	7.	3.	-135.	30.	5.	-1.09	3.	0.	27.	-0.
20821	DESOA3	RESIDU	-0.155	0.067	-0.155	0.242	0.36	-620.	-1[illegible]	2.	-563.	77.	12.	-2.20	6.	12.	37.	-2.
20821	GTSOAL	STIL	-0.087	0.067	-0.087	0.109	0.20	-1.	26.	3.	12.	47.	2.	0.66	5.	0.	16.	-1.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
20821	GTSOAD	DISTIL	-0.119	0.067	-0.119	0.176	0.32	-15.	21.	3.	19.	77.	5.	0.66	11.	6.	21.	-1.
20821	GTRA08	DISTIL	0.	-0.021	0.	0.021	0.19	-18.	15.	2.	-4.	39.	4.	0.42	4.	0.	24.	-1.
20821	GTRA08	DISTIL	0.	-0.084	0.	0.084	0.36	-51.	-2.	1.	3.	90.	11.	0.49	13.	12.	29.	-2.
20821	GTRA12	DISTIL	0.	-0.021	0.	0.022	0.20	-18.	15.	2.	-4.	39.	4.	0.42	4.	0.	24.	-1.
20821	GTRA12	DISTIL	0.	-0.082	0.	0.084	0.36	-51.	-2.	1.	3.	89.	11.	0.50	13.	12.	29.	-2.
20821	GTRA16	DISTIL	0.	-0.021	0.	0.022	0.20	-18.	15.	2.	-4.	39.	4.	0.42	4.	0.	25.	-1.
20821	GTRA16	DISTIL	0.	-0.078	0.	0.080	0.36	-49.	-1.	1.	2.	86.	10.	0.49	12.	11.	30.	-2.
20821	GTR208	DISTIL	0.	-0.021	0.	0.021	0.20	-18.	15.	2.	-5.	39.	4.	0.42	4.	0.	22.	-1.
20821	GTR208	DISTIL	0.	-0.066	0.	0.067	0.34	-44.	3.	1.	-1.	75.	9.	0.47	12.	8.	26.	-1.
20821	GTR212	DISTIL	0.	-0.021	0.	0.021	0.19	-18.	15.	2.	-5.	39.	4.	0.42	4.	0.	23.	-1.
20821	GTR212	DISTIL	0.	-0.071	0.	0.071	0.34	-46.	1.	1.	-0.	79.	9.	0.46	12.	9.	28.	-1.
20821	GTR216	DISTIL	0.	-0.021	0.	0.022	0.20	-18.	15.	2.	-4.	39.	4.	0.42	4.	0.	23.	-1.
20821	GTR216	DISTIL	0.	-0.071	0.	0.074	0.35	-46.	1.	1.	1.	81.	10.	0.49	12.	10.	28.	-1.
20821	GTRW08	DISTIL	0.	-0.025	0.	0.018	0.16	-19.	14.	2.	-5.	38.	4.	0.40	4.	0.	29.	-1.
20821	GTRW08	DISTIL	0.	-0.118	0.	0.085	0.31	-65.	-12.	0.	0.	99.	12.	0.46	16.	15.	33.	-3.
20821	GTRW12	DISTIL	0.	-0.024	0.	0.019	0.17	-18.	15.	2.	-4.	38.	4.	0.41	4.	0.	28.	-1.
20821	GTRW12	DISTIL	0.	-0.117	0.	0.092	0.33	-64.	-12.	0.	3.	103.	13.	0.48	16.	16.	32.	-2.
20821	GTRW16	DISTIL	0.	-0.024	0.	0.019	0.17	-18.	15.	2.	-5.	38.	4.	0.41	4.	0.	29.	-1.
20821	GTRW16	DISTIL	0.	-0.109	0.	0.087	0.33	-61.	-9.	0.	2.	98.	12.	0.48	15.	14.	32.	-2.
20821	GTR308	DISTIL	0.	-0.025	0.	0.017	0.16	-20.	14.	2.	-6.	37.	4.	0.39	4.	0.	27.	-1.
20821	GTR308	DISTIL	0.	-0.090	0.	0.062	0.28	-54.	-4.	1.	-5.	79.	10.	0.43	13.	10.	31.	-2.
20821	GTR312	DISTIL	0.	-0.024	0.	0.019	0.17	-19.	15.	2.	-5.	38.	4.	0.41	4.	0.	25.	-1.
20821	GTR312	DISTIL	0.	-0.097	0.	0.078	0.32	-56.	-6.	1.	-0.	90.	11.	0.47	14.	12.	30.	-2.
20821	GTR316	DISTIL	0.	-0.024	0.	0.019	0.17	-19.	15.	2.	-5.	38.	4.	0.41	4.	0.	27.	-1.
20821	GTR316	DISTIL	0.	-0.096	0.	0.076	0.32	-56.	-6.	1.	-1.	89.	11.	0.46	14.	12.	31.	-2.
20821	FCPADS	DISTIL	0.	-0.021	0.	0.022	0.20	-10.	26.	2.	4.	49.	5.	0.63	4.	0.	31.	-1.
20821	FCPADS	DISTIL	0.	-0.092	0.	0.096	0.38	-22.	40.	3.	39.	143.	14.	0.86	12.	14.	43.	-4.
20821	FCMCDS	DISTIL	0.	-0.024	0.	0.019	0.17	-29.	24.	2.	-16.	47.	4.	0.39	4.	0.	37.	-1.
20821	FCMCDS	DISTIL	0.	-0.177	0.	0.137	0.36	-175.	40.	-0.	-74.	211.	18.	0.45	13.	25.	51.	-8.
20	FCMCDS	DISTIL	-10.525	-82.511	-10.525	60.587	27.70	-62168.	-19890.	-2070.	-16800.	55687.	2823.	0.24	11644.	10922.	46268.	-1988.
22601	STM141	RESIDU	0.	-0.016	0.	0.026	0.16	-5.	17.	-1.	7.	36.	-4.	0.25	9.	0.	-13.	-0.
22601	STM141	RESIDU	0.	-0.025	0.	0.041	0.23	-9.	13.	-1.	12.	45.	-3.	0.30	13.	2.	-7.	0.
22601	STM141	COAL-F	0.	-0.016	0.	0.026	0.16	-5.	-9.	-1.	8.	13.	2.	0.15	-1.	0.	53.	-0.
22601	STM141	COAL-F	0.	-0.025	0.	0.041	0.23	-9.	-15.	-1.	13.	21.	3.	0.21	4.	2.	25.	1.
22601	STM141	COAL-A	0.	-0.016	0.	0.026	0.16	23.	-9.	-1.	36.	13.	2.	0.33	2.	0.	33.	0.
22601	STM141	COAL-A	0.	-0.025	0.	0.041	0.23	22.	-15.	-1.	43.	21.	3.	0.38	8.	2.	8.	1.
22601	STM088	RESIDU	0.	-0.016	0.	0.026	0.16	-5.	17.	-1.	7.	36.	-4.	0.25	10.	0.	-18.	-0.
22601	STM088	RESIDU	0.	-0.018	0.	0.030	0.18	-6.	16.	-1.	8.	38.	-3.	0.27	12.	1.	-20.	0.
22601	STM088	COAL-F	0.	-0.016	0.	0.026	0.16	-5.	-9.	-1.	8.	13.	2.	0.15	0.	0.	44.	0.
22601	STM088	COAL-F	0.	-0.018	0.	0.030	0.18	-6.	-11.	-1.	9.	16.	2.	0.17	3.	1.	23.	1.
22601	STM088	COAL-A	0.	-0.016	0.	0.026	0.16	23.	-9.	-1.	36.	13.	2.	0.33	3.	0.	24.	1.
22601	STM088	COAL-A	0.	-0.018	0.	0.030	0.18	22.	-11.	-1.	38.	16.	2.	0.35	7.	1.	4.	1.
22601	PFBSTM	COAL-P	0.	-0.016	0.	0.025	0.16	26.	-10.	1.	40.	13.	4.	0.37	-2.	0.	62.	-0.
22601	PFBSTM	COAL-P	0.	-0.041	0.	0.065	0.29	29.	-25.	3.	63.	33.	10.	0.49	5.	6.	30.	1.
22601	TISTMT	RESIDU	0.	-0.016	0.	0.025	0.16	-6.	17.	-1.	7.	35.	-4.	0.25	-5.	0.	73.	-2.
22601	TISTMT	RESIDU	0.	-0.055	0.	0.087	0.34	-19.	1.	-3.	25.	73.	-1.	0.39	-18.	9.	75.	-5.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT COAL	DIRECT OIL+GAS	TOTAL COAL	TOTAL OIL+GAS	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
22601	TISTMT	COAL	0.	-0.016	0.	0.025	0.16	-6.	-10.	-1.	8.	13.	2.	0.14	-16.	0.	147.	-2.
22601	TISTMT	COAL	0.	-0.055	0.	0.087	0.34	-19.	-33.	-3.	26.	44.	6.	0.31	-32.	0.	95.	-4.
22601	TIHRSG	RESIDU	0.	-0.022	0.	0.020	0.12	-8.	15.	-1.	5.	33.	-4.	0.22	-14.	0.	126.	-3.
22601	TIHRSG	RESIDU	0.	-0.035	0.	0.032	0.17	-12.	9.	-2.	8.	41.	-4.	0.25	-21.	2.	123.	-4.
22601	TIHRSG	COAL	0.	-0.022	0.	0.020	0.12	-8.	-13.	-1.	6.	10.	1.	0.11	-26.	0.	207.	-3.
22601	TIHRSG	COAL	0.	-0.035	0.	0.032	0.17	-12.	-21.	-2.	9.	15.	2.	0.15	-33.	2.	165.	-4.
22601	STIRL	DISTIL	0.	-0.023	0.	0.018	0.12	9.	31.	3.	22.	53.	6.	0.52	8.	0.	1.	-2.
22601	STIRL	DISTIL	0.	-0.093	0.	0.075	0.26	-8.	11.	2.	47.	103.	12.	0.59	15.	12.	30.	-3.
22601	STIRL	RESIDU	0.	-0.023	0.	0.018	0.12	-8.	14.	-2.	4.	32.	-6.	0.20	8.	0.	-3.	-1.
22601	STIRL	RESIDU	0.	-0.093	0.	0.075	0.26	-33.	-14.	-10.	20.	72.	-9.	0.31	15.	12.	26.	-1.
22601	STIRL	COAL	0.	-0.023	0.	0.018	0.12	-8.	-14.	-1.	5.	9.	1.	0.10	-1.	0.	58.	-0.
22601	STIRL	COAL	0.	-0.093	0.	0.075	0.26	-33.	-56.	-5.	22.	36.	5.	0.23	1.	12.	41.	-0.
22601	HEGT85	COAL-A	0.	-0.034	0.	0.008	0.05	18.	-20.	-2.	32.	2.	1.	0.23	-11.	0.	122.	-2.
22601	HEGT85	COAL-A	0.	-0.519	0.	0.118	0.16	-75.	-312.	-26.	130.	37.	12.	0.25	-36.	56.	62.	-12.
22601	HEGT60	COAL-A	0.	-0.032	0.	0.009	0.06	18.	-19.	-2.	31.	3.	1.	0.23	-11.	0.	116.	-1.
22601	HEGT60	COAL-A	0.	-0.199	0.	0.056	0.15	-16.	-119.	-10.	65.	20.	5.	0.26	-21.	20.	68.	-5.
22601	HEGT00	COAL-A	0.	-0.031	0.	0.010	0.06	17.	-19.	-2.	30.	4.	1.	0.23	-9.	0.	108.	-1.
22601	HEGT00	COAL-A	0.	-0.083	0.	0.026	0.12	4.	-50.	-4.	40.	10.	2.	0.24	-11.	6.	71.	-2.
22601	FCMCCL	COAL	0.	-0.019	0.	0.022	0.14	8.	15.	1.	22.	37.	4.	0.40	-9.	0.	100.	-1.
22601	FCMCCL	COAL	0.	-0.092	0.	0.106	0.34	40.	69.	5.	104.	178.	17.	1.00	-7.	15.	52.	-2.
22601	FCSTCL	COAL	0.	-0.018	0.	0.023	0.15	5.	9.	1.	19.	32.	3.	0.35	-8.	0.	96.	-1.
22601	FCSTCL	COAL	0.	-0.136	0.	0.169	0.40	40.	69.	5.	139.	236.	23.	1.00	-4.	25.	45.	-2.
22601	IGGTST	COAL	0.	-0.023	0.	0.018	0.12	-8.	-14.	1.	5.	9.	3.	0.11	-8.	0.	98.	-1.
22601	IGGTST	COAL	0.	-0.119	0.	0.094	0.29	-42.	-71.	5.	27.	45.	17.	0.28	-4.	16.	47.	-2.
22601	GTSOAR	RESIDU	-0.138	0.116	-0.138	0.157	0.12	19.	17.	5.	32.	40.	7.	0.52	9.	0.	-6.	-0.
22601	GTSOAR	RESIDU	-0.229	0.116	-0.229	0.323	0.29	-17.	-16.	4.	50.	97.	16.	0.53	23.	16.	21.	-1.
22601	GTAC06	RESIDU	0.	-0.019	0.	0.022	0.14	-19.	15.	-2.	-7.	34.	-5.	0.14	9.	0.	-13.	-0.
22601	GTAC08	RESIDU	0.	-0.076	0.	0.086	0.31	-75.	-7.	-9.	-24.	76.	-7.	0.17	21.	11.	13.	-0.
22601	GTAC12	RESIDU	0.	-0.020	0.	0.022	0.14	-19.	15.	-2.	-5.	34.	-5.	0.15	9.	0.	-13.	-0.
22601	GTAC12	RESIDU	0.	-0.096	0.	0.106	0.33	-87.	-15.	-10.	-23.	89.	-7.	0.19	23.	15.	17.	-0.
22601	GTAC16	RESIDU	0.	-0.020	0.	0.021	0.14	-17.	15.	-2.	-5.	34.	-5.	0.15	9.	0.	-11.	-0.
22601	GTAC16	RESIDU	0.	-0.110	0.	0.118	0.34	-95.	-21.	-12.	-23.	97.	-7.	0.20	25.	18.	19.	-0.
22601	GTWC16	RESIDU	0.	-0.022	0.	0.019	0.12	-18.	14.	-2.	-6.	33.	-5.	0.14	9.	0.	-8.	-0.
22601	GTWC16	RESIDU	0.	-0.128	0.	0.112	0.32	-106.	-28.	-13.	-30.	96.	-8.	0.17	26.	19.	21.	-1.
22601	CC1626	RESIDU	0.	-0.022	0.	0.019	0.12	-16.	14.	-2.	-4.	33.	-5.	0.15	9.	0.	-5.	-1.
22601	CC1626	RESIDU	0.	-0.206	0.	0.178	0.36	-152.	-59.	-19.	-32.	141.	-9.	0.21	37.	32.	24.	-2.
22601	CC1622	RESIDU	0.	-0.021	0.	0.020	0.13	-16.	15.	-2.	-4.	33.	-5.	0.16	9.	0.	-7.	-0.
22601	CC1622	RESIDU	0.	-0.177	0.	0.168	0.36	-135.	-48.	-17.	-27.	132.	-8.	0.22	33.	28.	24.	-1.
22601	CC1222	RESIDU	0.	-0.021	0.	0.020	0.13	-16.	15.	-2.	-4.	33.	-5.	0.16	9.	0.	-9.	-0.
22601	CC1222	RESIDU	0.	-0.175	0.	0.168	0.37	-134.	-47.	-16.	-26.	132.	-8.	0.23	34.	28.	23.	-1.
22601	CC0822	RESIDU	0.	-0.020	0.	0.022	0.14	-16.	15.	-2.	-4.	34.	-5.	0.16	9.	0.	-9.	-0.
22601	CC0822	RESIDU	0.	-0.130	0.	0.144	0.37	-107.	-29.	-13.	-21.	114.	-7.	0.23	29.	22.	20.	-0.
22601	STIG15	RESIDU	0.	-0.034	0.	0.007	0.05	-21.	10.	-1.	-8.	28.	-5.	0.09	9.	0.	4.	-1.
22601	STIG15	RESIDU	0.	-7.468	0.	1.562	0.17	-4510.	-2964.	-222.	-1662.	1747.	9.	0.01	754.	843.	3[illegible]	-130.
22601	STIG10	RESIDU	0.	-0.031	0.	0.010	0.07	-20.	[illegible]	-1.	-8.	29.	-4.	0.11	9.	0.	[illegible]	-1.
22601	STIG[illegible]	RESIDU	0.	-0.628	0.	0.207	0.22	-406.	-2.	-17.	-143.	206.	3.	0.07	74.	74.	35.	-10.

DATE 06/12/79 — GENERAL ELECTRIC COMPANY —

ISE PEO AES — COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

TIME 1990 LEVEL ALL

FUEL UNITS =

EMISSION UNITS=

COST =$*10**9

TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22601	STIG1S	RESIDU	0.	-0.030	0.	0.012	0.07	-20.	11.	-1.	-8.	30.	-4.	0.11	9.	0.	-3.	-1.
22601	STIG1S	RESIDU	0.	-0.352	0.	0.138	0.23	-240.	-117.	-8.	-86.	136.	2.	0.09	48.	42.	31.	-8.
22601	DEADV3	RESIDU	0.	-0.027	0.	0.015	0.09	-31.	13.	-2.	-18.	31.	-6.	0.04	6.	0.	12.	-1.
22601	DEADV3	RESIDU	0.	-0.341	0.	0.189	0.29	-394.	-113.	-29.	-227.	163.	-16.	-0.13	24.	48.	41.	-7.
22601	DEHTPM	RESIDU	0.	-0.019	0.	0.022	0.14	-30.	15.	-2.	-18.	34.	-5.	0.07	6.	0.	8.	-1.
22601	DEHTPM	RESIDU	0.	-0.113	0.	0.128	0.36	-177.	-22.	-12.	-102.	103.	-7.	-0.02	15.	19.	31.	-2.
22601	DESGA3	DISTIL	-0.145	0.116	-0.145	0.157	0.08	-32.	46.	6.	-19.	64.	2.	0.31	7.	0.	17.	-2.
22601	DESGA3	DISTIL	-0.543	0.116	-0.543	0.729	0.25	-991.	-19.	6.	-798.	300.	20.	-0.70	11.	54.	55.	-16.
22601	DESGA3	RESIDU	-0.145	0.116	-0.145	0.157	0.08	-119.	15.	5.	-106.	38.	7.	-0.40	7.	0.	12.	-1.
22601	DESGA3	RESIDU	-0.543	0.116	-0.543	0.729	0.25	-2159.	-135.	1.	-1962.	200.	38.	-2.52	11.	54.	50.	-12.
22601	GTSGAD	DISTIL	-0.137	0.116	-0.137	0.157	0.13	29.	47.	6.	42.	66.	3.	0.71	10.	0.	-9.	-1.
22601	GTSGAD	DISTIL	-0.213	0.116	-0.213	0.310	0.31	-2.	35.	6.	59.	135.	9.	0.68	24.	14.	19.	-2.
22601	GTRA08	DISTIL	0.	-0.022	0.	0.019	0.12	3.	31.	3.	16.	53.	6.	0.49	8.	0.	-1.	-2.
22601	GTRA08	DISTIL	0.	-0.169	0.	0.149	0.34	-73.	-11.	1.	29.	163.	20.	0.52	30.	26.	28.	-4.
22601	GTRA12	DISTIL	0.	-0.021	0.	0.020	0.13	3.	31.	3.	16.	53.	6.	0.49	9.	0.	-2.	-2.
22601	GTRA12	DISTIL	0.	-0.162	0.	0.149	0.35	-71.	-9.	1.	29.	161.	19.	0.52	29.	25.	28.	-3.
22601	GTRA16	DISTIL	0.	-0.021	0.	0.020	0.13	3.	31.	3.	16.	53.	6.	0.49	8.	0.	-0.	-2.
22601	GTRA16	DISTIL	0.	-0.151	0.	0.140	0.34	-66.	-5.	1.	28.	154.	18.	0.52	27.	23.	28.	-3.
22601	GTR208	DISTIL	0.	-0.021	0.	0.020	0.13	2.	31.	3.	15.	53.	6.	0.48	9.	0.	-4.	-2.
22601	GTR208	DISTIL	0.	-0.126	0.	0.116	0.32	-56.	2.	2.	22.	134.	16.	0.50	25.	19.	25.	-3.
22601	GTR212	DISTIL	0.	-0.022	0.	0.020	0.13	2.	31.	3.	15.	53.	6.	0.48	9.	0.	-3.	-2.
22601	GTR212	DISTIL	0.	-0.135	0.	0.124	0.33	-60.	-1.	2.	23.	141.	17.	0.51	26.	20.	26.	-3.
22601	GTR216	DISTIL	0.	-0.021	0.	0.020	0.13	2.	31.	3.	16.	54.	6.	0.49	9.	0.	-2.	-2.
22601	GTR216	DISTIL	0.	-0.136	0.	0.129	0.34	-60.	-1.	2.	25.	144.	17.	0.51	26.	21.	27.	-3.
22601	GTRW08	DISTIL	0.	-0.025	0.	0.016	0.10	2.	30.	3.	15.	52.	6.	0.48	8.	0.	3.	-2.
22601	GTRW08	DISTIL	0.	-0.230	0.	0.150	0.30	-98.	-28.	-0.	24.	180.	22.	0.48	36.	32.	32.	-5.
22601	GTRW12	DISTIL	0.	-0.024	0.	0.017	0.11	2.	30.	3.	16.	53.	6.	0.48	8.	0.	1.	-2.
22601	GTRW12	DISTIL	0.	-0.224	0.	0.163	0.32	-95.	-26.	0.	29.	185.	23.	0.50	37.	32.	31.	-5.
22601	GTRW16	DISTIL	0.	-0.024	0.	0.018	0.11	2.	30.	3.	15.	53.	6.	0.48	8.	0.	2.	-2.
22601	GTRW16	DISTIL	0.	-0.206	0.	0.153	0.32	-88.	-21.	0.	27.	176.	22.	0.50	34.	30.	31.	-5.
22601	GTR308	DISTIL	0.	-0.026	0.	0.015	0.10	1.	30.	3.	14.	52.	6.	0.47	9.	0.	1.	-2.
22601	GTR308	DISTIL	0.	-0.183	0.	0.107	0.26	-79.	-15.	1.	14.	144.	18.	0.46	29.	23.	31.	-5.
22601	GTR312	DISTIL	0.	-0.023	0.	0.018	0.11	2.	30.	3.	15.	53.	6.	0.48	9.	0.	-1.	-2.
22601	GTR312	DISTIL	0.	-0.179	0.	0.136	0.32	-77.	-13.	1.	24.	159.	19.	0.50	32.	26.	28.	-4.
22601	GTR316	DISTIL	0.	-0.024	0.	0.018	0.11	2.	30.	3.	15.	53.	6.	0.48	8.	0.	1.	-2.
22601	GTR316	DISTIL	0.	-0.177	0.	0.133	0.31	-76.	-13.	1.	23.	157.	19.	0.49	30.	25.	29.	-4.
22601	FCPADS	DISTIL	0.	-0.028	0.	0.013	0.09	9.	39.	4.	22.	61.	6.	0.58	8.	0.	16.	-2.
22601	FCPADS	DISTIL	0.	-0.464	0.	0.225	0.28	-72.	70.	6.	149.	446.	47.	0.85	35.	61.	57.	-21.
22601	FCMCDS	DISTIL	0.	-0.023	0.	0.018	0.11	-8.	39.	3.	5.	62.	6.	0.47	8.	0.	12.	-2.
22601	FCMCDS	DISTIL	0.	-0.307	0.	0.238	0.36	-279.	69.	-1.	-104.	367.	32.	0.47	26.	47.	52.	-14.
22	FCMCDS	DISTIL	-2.092	-14.740	-2.092	10.342	13.19	-11437.	-3671.	-376.	-3486.	9571.	475.	0.22	1714.	1958.	3320.	-370.
24211	STM141	RESIDU	0.	-0.000	0.	0.006	0.99	-0.	-0.	-0.	2.	3.	0.	0.99	-0.	0.	81.	-0.
24211	STM141	RESIDU	0.	-0.000	0.	0.007	0.95	-0.	-0.	-0.	2.	4.	0.	0.95	0.	0.	55.	-0.
24211	STM141	COAL-F	0.	-0.000	0.	0.006	0.99	-0.	-0.	-0.	2.	3.	0.	0.99	-3.	0.	220.	-1.
24211	STM141	COAL-F	0.	-0.000	0.	0.007	0.95	-0.	-0.	-0.	2.	4.	0.	0.94	-2.	0.	155.	-0.
24211	STM141	COAL-A	0.	-0.000	0.	0.006	0.99	-0.	-0.	-0.	2.	3.	0.	0.99	-3.	0.	190.	-1.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
24211	STM141	COAL-A	0.	-0.000	0.	0.007	0.95	-0.	-0.	-0.	2.	4.	0.	0.96	-2.	0.	124.	-0.
24211	STM088	RESIDU	0.	0.	0.	0.005	0.81	0.	0.	0.	2.	3.	0.	0.81	0.	0.	58.	0.
24211	STM088	COAL-F	0.	0.	0.	0.005	0.81	0.	0.	0.	2.	3.	0.	0.81	-2.	0.	167.	-0.
24211	STM088	COAL-A	0.	0.	0.	0.005	0.81	0.	0.	0.	2.	3.	0.	0.81	-2.	0.	140.	-0.
24211	PFBSTM	COAL-P	0.	-0.000	0.	0.006	0.98	-0.	-0.	-0.	2.	3.	0.	0.98	-5.	0.	277.	-1.
24211	PFBSTM	COAL-P	0.	-0.002	0.	0.010	0.80	-0.	-1.	-0.	4.	5.	1.	0.85	-3.	1.	133.	-1.
24211	TISTMT	COAL	0.	-0.000	0.	0.006	0.98	-0.	-0.	-0.	2.	3.	0.	0.98	-9.	0.	465.	-2.
24211	TISTMT	COAL	0.	-0.004	0.	0.012	0.76	-1.	-2.	-0.	4.	7.	1.	0.74	-13.	1.	270.	-2.
24211	TIHRSG	COAL	0.	-0.001	0.	0.005	0.83	-0.	-1.	-0.	2.	3.	0.	0.82	-12.	0.	562.	-2.
24211	TIHRSG	COAL	0.	-0.002	0.	0.006	0.75	-1.	-1.	-0.	2.	3.	0.	0.74	-13.	0.	459.	-2.
24211	STIRL	COAL	0.	-0.001	0.	0.005	0.81	-0.	-1.	-0.	2.	3.	0.	0.80	-3.	0.	229.	-1.
24211	STIRL	COAL	0.	-0.009	0.	0.011	0.56	-3.	-5.	-0.	3.	6.	1.	0.53	-1.	1.	79.	-0.
24211	HEGT85	COAL-A	0.	-0.003	0.	0.003	0.53	-0.	-2.	-0.	2.	2.	0.	0.60	-8.	0.	394.	-1.
24211	HEGT85	COAL-A	0.	-0.071	0.	0.017	0.19	-13.	-42.	-4.	15.	5.	2.	0.28	-24.	8.	135.	-5.
24211	HEGT60	COAL-A	0.	-0.003	0.	0.004	0.57	-0.	-2.	-0.	2.	2.	0.	0.64	-7.	0.	380.	-1.
24211	HEGT60	COAL-A	0.	-0.023	0.	0.009	0.28	-4.	-14.	-1.	6.	4.	1.	0.35	-13.	2.	167.	-2.
24211	HEGT00	COAL-A	0.	-0.003	0.	0.004	0.60	-0.	-2.	-0.	2.	2.	0.	0.66	-7.	0.	352.	-1.
24211	HEGT00	COAL-A	0.	-0.008	0.	0.005	0.41	-1.	-5.	-0.	3.	3.	0.	0.47	-7.	1.	200.	-1.
24211	FCSTCL	COAL	0.	-0.030	0.	0.006	0.16	-0.	-0.	-0.	12.	20.	2.	1.00	-8.	3.	127.	-2.
24211	GTAC16	RESIDU	0.	-0.006	0.	0.000	0.01	-2.	-3.	-0.	-0.	1.	-0.	0.06	-0.	0.	102.	-0.
24211	CC1626	RESIDU	0.	-0.005	0.	0.001	0.15	-2.	-2.	-0.	0.	1.	-0.	0.19	-0.	0.	118.	-0.
24211	CC1622	RESIDU	0.	-0.006	0.	0.001	0.14	-2.	-2.	-0.	0.	1.	-0.	0.18	-0.	0.	112.	-0.
24211	CC1222	RESIDU	0.	-0.006	0.	0.001	0.14	-2.	-2.	-0.	0.	1.	-0.	0.19	-0.	0.	109.	-0.
24211	CC0822	RESIDU	0.	-0.006	0.	0.001	0.08	-2.	-2.	-0.	-0.	1.	-0.	0.13	-0.	0.	116.	-0.
24211	STIG15	RESIDU	0.	-0.005	0.	0.001	0.16	-2.	-2.	-0.	0.	1.	-0.	0.21	-0.	0.	111.	-0.
24211	STIG10	RESIDU	0.	-0.006	0.	0.001	0.11	-2.	-2.	-0.	0.	1.	-0.	0.16	-0.	0.	107.	-0.
24211	STIG1S	RESIDU	0.	-0.006	0.	0.000	0.05	-2.	-2.	-0.	-0.	1.	-0.	0.10	-0.	0.	108.	-0.
24211	DEADV3	RESIDU	0.	-0.006	0.	0.001	0.14	-2.	-2.	-0.	0.	1.	-0.	0.18	-1.	0.	153.	-0.
24211	DEHTPM	RESIDU	0.	-0.006	0.	0.000	0.04	-2.	-2.	-0.	-0.	1.	-0.	0.09	-2.	0.	162.	-0.
24211	DES0A3	DISTIL	-0.006	0.	-0.006	0.006	0.11	-0.	-1.	0.	2.	2.	0.	0.75	-0.	0.	120.	-0.
24211	DES0A3	RESIDU	-0.006	0.	-0.006	0.006	0.11	-1.	-2.	-0.	1.	1.	0.	0.53	-0.	0.	113.	-0.
24211	GTRA08	DISTIL	0.	-0.006	0.	0.001	0.10	-1.	-2.	-0.	1.	2.	0.	0.49	-1.	0.	121.	-0.
24211	GTRA12	DISTIL	0.	-0.006	0.	0.001	0.11	-1.	-2.	-0.	1.	2.	0.	0.49	-0.	0.	117.	-0.
24211	GTRA16	DISTIL	0.	-0.006	0.	0.001	0.08	-1.	-2.	-0.	1.	2.	0.	0.48	-1.	0.	122.	-0.
24211	GTR208	DISTIL	0.	-0.006	0.	0.000	0.00	-1.	-2.	-0.	1.	2.	0.	0.43	-0.	0.	118.	-0.
24211	GTR212	DISTIL	0.	-0.006	0.	0.000	0.03	-1.	-2.	-0.	1.	2.	0.	0.45	-0.	0.	119.	-0.
24211	GTR216	DISTIL	0.	-0.006	0.	0.000	0.05	-1.	-2.	-0.	1.	2.	0.	0.46	-0.	0.	119.	-0.
24211	GTRW08	DISTIL	0.	-0.006	0.	0.001	0.09	-1.	-2.	-0.	1.	2.	0.	0.48	-1.	0.	124.	-0.
24211	GTRW12	DISTIL	0.	-0.006	0.	0.001	0.12	-1.	-2.	-0.	1.	2.	0.	0.50	-1.	0.	123.	-0.
24211	GTRW16	DISTIL	0.	-0.006	0.	0.001	0.10	-1.	-2.	-0.	1.	2.	0.	0.49	-1.	0.	126.	-0.
24211	GTR312	DISTIL	0.	-0.006	0.	0.000	0.06	-1.	-2.	-0.	1.	2.	0.	0.47	-0.	0.	120.	-0.
24211	GTR316	DISTIL	0.	-0.006	0.	0.000	0.06	-1.	-2.	-0.	1.	2.	0.	0.46	-1.	0.	124.	-0.
24211	FCPADS	DISTIL	0.	-0.005	0.	0.001	0.16	-1.	-2.	-0.	1.	2.	0.	0.52	-0.	0.	108.	-0.
24211	FCMCDS	DISTIL	0.	-0.005	0.	0.001	0.22	-1.	-1.	-0.	1.	2.	0.	0.56	-0.	0.	10[illegible]	-0.
24361	STM1[illegible]	RESIDU	0.	-0.000	0.	0.019	0.99	-0	[illegible]	-0.	6.	10.	1.	0.99	4.	0.	-[illegible]	1.
24361	STM[illegible]	RESIDU	0.	-0.001	0.	0.020	0.97	-0.	[illegible]	-0.	6.	11.	1.	0.97	4.	0.	-24.	1.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
24361	STM141	COAL-F	0.	-0.000	0.	0.019	0.99	-0.	-0.	-0.	6.	10.	1.	0.99	-2.	0.	64.	-0.
24361	STM141	COAL-F	0.	-0.001	0.	0.020	0.97	-0.	-0.	-0.	6.	11.	1.	0.97	-1.	0.	43.	0.
24361	STM141	COAL-A	0.	-0.000	0.	0.019	0.99	-0.	-0.	-0.	6.	10.	1.	0.99	0.	0.	38.	0.
24361	STM141	COAL-A	0.	-0.001	0.	0.020	0.97	-0.	-0.	-0.	6.	11.	1.	0.98	1.	0.	17.	1.
24361	STM088	RESIDU	0.	0.	0.	0.013	0.68	0.	0.	0.	4.	7.	1.	0.68	4.	0.	-14.	1.
24361	STM088	COAL-F	0.	0.	0.	0.013	0.68	0.	0.	0.	4.	7.	1.	0.68	-1.	0.	50.	0.
24361	STM088	COAL-A	0.	0.	0.	0.013	0.68	0.	0.	0.	4.	7.	1.	0.68	1.	0.	28.	0.
24361	PFBSTM	COAL-P	0.	-0.001	0.	0.019	0.97	-0.	-0.	-0.	6.	10.	1.	0.97	-4.	0.	100.	-0.
24361	PFBSTM	COAL-P	0.	-0.008	0.	0.030	0.79	-1.	-5.	-0.	12.	16.	2.	0.84	-1.	2.	47.	-0.
24361	TISTMT	COAL	0.	-0.000	0.	0.019	0.98	-0.	-0.	-0.	6.	10.	1.	0.98	-13.	0.	216.	-2.
24361	TISTMT	COAL	0.	-0.013	0.	0.039	0.75	-5.	-8.	-1.	12.	21.	2.	0.73	-21.	3.	138.	-3.
24361	TIHRSG	COAL	0.	-0.004	0.	0.015	0.78	-1.	-2.	-0.	5.	8.	1.	0.77	-18.	0.	275.	-2.
24361	TIHRSG	COAL	0.	-0.011	0.	0.020	0.64	-4.	-7.	-1.	6.	10.	1.	0.61	-22.	1.	212.	-3.
24361	STIRL	COAL	0.	-0.004	0.	0.015	0.80	-1.	-2.	-0.	5.	8.	1.	0.79	-3.	0.	84.	-0.
24361	STIRL	COAL	0.	-0.032	0.	0.037	0.54	-11.	-19.	-2.	11.	19.	3.	0.50	-0.	5.	42.	-0.
24361	HEGT60	COAL-A	0.	-0.010	0.	0.010	0.50	-1.	-6.	-0.	5.	5.	1.	0.57	-9.	0.	165.	-1.
24361	HEGT60	COAL-A	0.	-0.120	0.	0.026	0.18	-22.	-72.	-6.	25.	8.	3.	0.26	-21.	12.	84.	-4.
24361	HEGT00	COAL-A	0.	-0.008	0.	0.011	0.58	-1.	-5.	-0.	5.	6.	1.	0.64	-8.	0.	151.	-1.
24361	HEGT00	COAL-A	0.	-0.034	0.	0.018	0.34	-6.	-20.	-2.	10.	8.	1.	0.41	-10.	3.	90.	-1.
24361	FCSTCL	COAL	0.	-0.108	0.	0.015	0.12	-0.	-0.	-0.	40.	67.	7.	1.00	-8.	10.	69.	-3.
24361	GTAC16	RESIDU	0.	-0.019	0.	0.000	0.01	-7.	-8.	-1.	-1.	2.	-1.	0.06	3.	0.	18.	0.
24361	CC1626	RESIDU	0.	-0.017	0.	0.002	0.12	-6.	-7.	-1.	0.	3.	-0.	0.16	3.	0.	22.	0.
24361	CC1622	RESIDU	0.	-0.017	0.	0.002	0.10	-6.	-7.	-1.	0.	3.	-0.	0.15	3.	0.	19.	0.
24361	CC1222	RESIDU	0.	-0.017	0.	0.002	0.10	-6.	-7.	-1.	0.	3.	-0.	0.15	3.	0.	18.	0.
24361	CC0822	RESIDU	0.	-0.019	0.	0.001	0.03	-6.	-7.	-1.	-0.	3.	-1.	0.09	3.	0.	22.	0.
24361	STIG15	RESIDU	0.	-0.016	0.	0.003	0.16	-6.	-6.	-1.	0.	4.	-0.	0.21	3.	0.	18.	0.
24361	STIG10	RESIDU	0.	-0.017	0.	0.002	0.11	-6.	-7.	-1.	0.	3.	-0.	0.16	3.	0.	17.	0.
24361	STIG1S	RESIDU	0.	-0.018	0.	0.001	0.05	-6.	-7.	-1.	-0.	3.	-1.	0.10	3.	0.	18.	0.
24361	DEADV3	RESIDU	0.	-0.017	0.	0.003	0.14	-6.	-7.	-1.	0.	3.	-0.	0.18	1.	0.	40.	0.
24361	DESOA3	DISTIL	-0.017	0.	-0.017	0.019	0.11	-0.	-3.	0.	6.	7.	0.	0.75	2.	0.	34.	0.
24361	DESOA3	RESIDU	-0.017	0.	-0.017	0.019	0.11	-2.	-6.	-0.	4.	4.	1.	0.53	2.	0.	27.	0.
24361	GTRA08	DISTIL	0.	-0.017	0.	0.002	0.10	-4.	-5.	-0.	2.	6.	1.	0.49	3.	0.	29.	0.
24361	GTRA12	DISTIL	0.	-0.017	0.	0.002	0.11	-4.	-5.	-0.	2.	6.	1.	0.49	3.	0.	27.	0.
24361	GTRA16	DISTIL	0.	-0.018	0.	0.002	0.08	-4.	-5.	-0.	2.	6.	1.	0.48	3.	0.	31.	0.
24361	GTR212	DISTIL	0.	-0.019	0.	0.001	0.03	-4.	-5.	-0.	2.	5.	1.	0.45	3.	0.	30.	0.
24361	GTR216	DISTIL	0.	-0.018	0.	0.001	0.05	-4.	-5.	-0.	2.	5.	1.	0.46	3.	0.	30.	0.
24361	GTRW08	DISTIL	0.	-0.017	0.	0.002	0.09	-4.	-5.	-0.	2.	6.	1.	0.48	3.	0.	30.	0.
24361	GTRW12	DISTIL	0.	-0.017	0.	0.002	0.12	-4.	-5.	-0.	2.	6.	1.	0.50	3.	0.	29.	0.
24361	GTRW16	DISTIL	0.	-0.017	0.	0.002	0.10	-4.	-5.	-0.	2.	6.	1.	0.49	3.	0.	31.	0.
24361	GTR312	DISTIL	0.	-0.018	0.	0.001	0.06	-4.	-5.	-0.	2.	5.	1.	0.47	3.	0.	29.	0.
24361	GTR316	DISTIL	0.	-0.018	0.	0.001	0.06	-4.	-5.	-0.	2.	5.	1.	0.46	3.	0.	31.	0.
24361	FCPADS	DISTIL	0.	-0.016	0.	0.003	0.16	-4.	-5.	-0.	2.	6.	1.	0.52	3.	0.	31.	0.
24361	FCMCDS	DISTIL	0.	-0.015	0.	0.004	0.22	-3.	-4.	-0.	3.	6.	1.	0.56	3.	0.	29.	0.
24921	STM141	RESIDU	0.	-0.005	0.	0.008	0.19	-2.	-2.	-0.	2.	5.	0.	0.19	2.	0.	36.	1.
24921	STM141	COAL-F	0.	-0.005	0.	0.008	0.19	-2.	-3.	-0.	2.	4.	1.	0.17	-0.	0.	44.	0.
24921	STM141	COAL-A	0.	-0.005	0.	0.008	0.19	-1.	-3.	-0.	4.	4.	1.	0.21	0.	0.	38.	0.

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
24921	STM088	RESIDU	0.	-0.003	0.	0.005	0.12	-2.	-1.	-0.	1.	4.	0.	0.12	2.	0.	39.	0.
24921	STM088	COAL-F	0.	-0.003	0.	0.005	0.12	-2.	-2.	-0.	1.	3.	0.	0.10	-0.	0.	45.	0.
24921	STM088	COAL-A	0.	-0.003	0.	0.005	0.12	-0.	-2.	-0.	2.	3.	0.	0.13	0.	0.	41.	0.
24921	PFBSTM	COAL-P	0.	-0.010	0.	0.015	0.34	-1.	-6.	-0.	7.	8.	1.	0.40	-1.	0.	47.	0.
24921	TISTMT	RESIDU	0.	-0.001	0.	0.001	0.03	-1.	0.	-0.	-0.	1.	-0.	0.02	1.	0.	53.	0.
24921	TISTMT	COAL	0.	-0.013	0.	0.021	0.47	-5.	-8.	-1.	6.	11.	1.	0.44	-13.	0.	111.	-1.
24921	TIHRSG	RESIDU	0.	-0.001	0.	0.000	0.01	-1.	0.	-0.	-0.	1.	-0.	0.01	1.	0.	52.	0.
24921	TIHRSG	COAL	0.	-0.012	0.	0.009	0.19	-5.	-7.	-1.	2.	4.	1.	0.16	-13.	0.	115.	-1.
24921	STIRL	DISTIL	0.	-0.001	0.	0.001	0.02	-1.	0.	0.	0.	2.	0.	0.05	2.	0.	54.	0.
24921	STIRL	RESIDU	0.	-0.001	0.	0.001	0.02	-1.	-0.	-0.	-0.	1.	-0.	0.02	2.	0.	46.	0.
24921	STIRL	COAL	0.	-0.024	0.	0.019	0.42	-9.	-14.	-1.	5.	9.	1.	0.37	0.	0.	38.	0.
24921	STIRL	COAL	0.	-0.026	0.	0.020	0.42	-9.	-16.	-1.	5.	10.	1.	0.37	1.	0.	31.	1.
24921	HEGT60	COAL-A	0.	-0.037	0.	0.005	0.12	-6.	-22.	-2.	8.	1.	1.	0.23	-11.	0.	107.	-1.
24921	HEGT60	COAL-A	0.	-0.084	0.	0.012	0.13	-15.	-50.	-4.	16.	2.	1.	0.21	-14.	5.	79.	-2.
24921	HEGT00	COAL-A	0.	-0.027	0.	0.007	0.16	-5.	-16.	-1.	6.	2.	1.	0.22	-6.	0.	76.	-1.
24921	FCSTCL	COAL	0.	-0.069	0.	0.012	0.14	0.	1.	-0.	26.	45.	5.	1.00	-6.	4.	64.	-1.
24921	GTSOAR	RESIDU	-0.004	0.002	-0.004	0.005	0.03	-0.	-0.	0.	1.	2.	0.	0.07	2.	0.	46.	0.
24921	GTAC08	RESIDU	0.	-0.001	0.	0.001	0.03	-1.	-0.	-0.	-0.	1.	-0.	0.03	2.	0.	45.	0.
24921	GTAC12	RESIDU	0.	-0.002	0.	0.002	0.04	-1.	-0.	-0.	0.	1.	-0.	0.04	2.	0.	45.	0.
24921	GTAC16	RESIDU	0.	-0.040	0.	0.002	0.05	-22.	-16.	-3.	-8.	6.	-2.	-0.10	3.	0.	35.	0.
24921	GTAC16	RESIDU	0.	-0.002	0.	0.002	0.04	-1.	-0.	-0.	0.	2.	-0.	0.04	2.	0.	45.	0.
24921	GTWC16	RESIDU	0.	-0.041	0.	0.001	0.03	-22.	-16.	-3.	-9.	6.	-2.	-0.12	3.	0.	38.	-0.
24921	GTWC16	RESIDU	0.	-0.002	0.	0.002	0.04	-1.	-0.	-0.	0.	2.	-0.	0.04	2.	0.	45.	0.
24921	CC1626	RESIDU	0.	-0.036	0.	0.007	0.15	-17.	-14.	-2.	-4.	8.	-1.	0.08	3.	0.	37.	0.
24921	CC1626	RESIDU	0.	-0.003	0.	0.003	0.06	-1.	-1.	-0.	0.	2.	-0.	0.06	2.	0.	46.	0.
24921	CC1622	RESIDU	0.	-0.036	0.	0.006	0.14	-18.	-14.	-2.	-5.	8.	-1.	0.05	3.	0.	36.	0.
24921	CC1622	RESIDU	0.	-0.003	0.	0.002	0.05	-1.	-1.	-0.	0.	2.	-0.	0.05	2.	0.	46.	0.
24921	CC1222	RESIDU	0.	-0.036	0.	0.006	0.14	-18.	-14.	-2.	-5.	8.	-1.	0.05	3.	0.	35.	0.
24921	CC1222	RESIDU	0.	-0.003	0.	0.002	0.05	-1.	-1.	-0.	0.	2.	-0.	0.05	2.	0.	45.	0.
24921	CC0822	RESIDU	0.	-0.039	0.	0.003	0.08	-21.	-15.	-3.	-7.	7.	-2.	-0.06	3.	0.	37.	-0.
24921	CC0822	RESIDU	0.	-0.002	0.	0.002	0.05	-1.	-0.	-0.	0.	2.	-0.	0.04	2.	0.	46.	0.
24921	STIG15	RESIDU	0.	-0.035	0.	0.007	0.17	-13.	-14.	-2.	-0.	8.	-1.	0.19	3.	0.	37.	0.
24921	STIG15	RESIDU	0.	-0.121	0.	0.025	0.17	-65.	-48.	-4.	-19.	28.	-1.	0.06	8.	10.	41.	-2.
24921	STIG10	RESIDU	0.	-0.036	0.	0.007	0.15	-15.	-14.	-2.	-2.	8.	-1.	0.14	3.	0.	35.	0.
24921	STIG10	RESIDU	0.	-0.010	0.	0.003	0.08	-4.	-4.	-1.	0.	3.	-0.	0.08	2.	0.	44.	0.
24921	STIG1S	RESIDU	0.	-0.039	0.	0.004	0.09	-18.	-15.	-2.	-5.	7.	-1.	0.04	3.	0.	37.	-0.
24921	STIG1S	RESIDU	0.	-0.006	0.	0.002	0.05	-2.	-2.	-0.	0.	2.	-0.	0.05	2.	0.	45.	0.
24921	DEADV3	RESIDU	0.	-0.035	0.	0.008	0.17	-19.	-14.	-2.	-5.	9.	-1.	0.06	1.	0.	-46.	-0.
24921	DEADV3	RESIDU	0.	-0.007	0.	0.003	0.07	-3.	-2.	-0.	0.	3.	-0.	0.08	1.	0.	51.	0.
24921	DEHTPM	RESIDU	0.	-0.042	0.	0.001	0.01	-34.	-16.	-3.	-20.	6.	-2.	-0.41	1.	0.	52.	-0.
24921	DEHTPM	RESIDU	0.	-0.002	0.	0.002	0.04	-1.	-0.	-0.	0.	2.	-0.	0.04	2.	0.	46.	0.
24921	DESOA3	DISTIL	-0.038	0.002	-0.038	0.045	0.15	-19.	-5.	0.	-6.	17.	1.	0.31	2.	0.	49.	-0.
24921	DESOA3	DISTIL	-0.010	0.002	-0.010	0.014	0.07	-0.	-1.	0.	4.	6.	0.	0.23	2.	0.	52.	0.
24921	DESOA3	RESIDU	-0.038	0.002	-0.038	0.045	0.15	-43.	-13.	-0.	-29.	10.	2.	-0.40	2.	0.	42	-0.
24921	DESOA3	RESIDU	-0.010	0.002	-0.010	0.014	0.07	-1.	-0.	0.	3.	4.	1.	0.18	2.	0.	4[illegible]	0.
24921	GTSOA	DISTIL	-0.003	0.002	-0.003	0.005	0.04	0.		0.	1.	2.	0.	0.09	2.	0.	52.	0.

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ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=PGWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
24921	GTRA08	DISTIL	0.	-0.036	0.	0.006	0.14	-12.	-10.	-1.	2.	14.	2.	0.43	3.	0.	44.	-0.
24921	GTRA08	DISTIL	0.	-0.003	0.	0.002	0.06	-1.	-0.	0.	1.	3.	0.	0.10	2.	0.	53.	0.
24921	GTRA12	DISTIL	0.	-0.036	0.	0.006	0.14	-12.	-10.	-1.	2.	14.	2.	0.43	3.	0.	43.	-0.
24921	GTRA12	DISTIL	0.	-0.003	0.	0.002	0.06	-1.	-0.	0.	1.	3.	0.	0.10	2.	0.	53.	0.
24921	GTRA16	DISTIL	0.	-0.037	0.	0.005	0.12	-12.	-10.	-1.	2.	13.	2.	0.41	3.	0.	45.	-0.
24921	GTRA16	DISTIL	0.	-0.003	0.	0.002	0.05	-1.	-0.	0.	1.	3.	0.	0.09	2.	0.	53.	0.
24921	GTR208	DISTIL	0.	-0.041	0.	0.002	0.04	-14.	-11.	-1.	-1.	12.	2.	0.34	3.	0.	45.	-0.
24921	GTR208	DISTIL	0.	-0.002	0.	0.002	0.04	-1.	-0.	0.	1.	2.	0.	0.08	2.	0.	53.	0.
24921	GTR212	DISTIL	0.	-0.039	0.	0.003	0.07	-13.	-11.	-1.	0.	13.	2.	0.36	3.	0.	45.	-0.
24921	GTR212	DISTIL	0.	-0.002	0.	0.002	0.05	-1.	-0.	0.	1.	2.	0.	0.08	2.	0.	53.	0.
24921	GTR216	DISTIL	0.	-0.039	0.	0.004	0.09	-13.	-10.	-1.	1.	13.	2.	0.38	3.	0.	45.	-0.
24921	GTR216	DISTIL	0.	-0.002	0.	0.002	0.05	-1.	-0.	0.	1.	2.	0.	0.08	2.	0.	53.	0.
24921	GTRW08	DISTIL	0.	-0.037	0.	0.006	0.13	-11.	-10.	-1.	2.	14.	2.	0.43	3.	0.	45.	-0.
24921	GTRW08	DISTIL	0.	-0.004	0.	0.002	0.06	-1.	-1.	-0.	1.	3.	0.	0.11	2.	0.	53.	0.
24921	GTRW12	DISTIL	0.	-0.036	0.	0.007	0.16	-11.	-9.	-1.	3.	14.	2.	0.46	3.	0.	44.	-0.
24921	GTRW12	DISTIL	0.	-0.004	0.	0.003	0.06	-1.	-1.	-0.	1.	3.	0.	0.11	2.	0.	53.	0.
24921	GTRW16	DISTIL	0.	-0.036	0.	0.006	0.14	-11.	-10.	-1.	2.	14.	2.	0.44	2.	0.	45.	-0.
24921	GTRW16	DISTIL	0.	-0.004	0.	0.003	0.06	-1.	-0.	0.	1.	3.	0.	0.10	2.	0.	54.	0.
24921	GTR308	DISTIL	0.	-0.042	0.	0.001	0.01	-14.	-11.	-1.	-0.	12.	2.	0.33	3.	0.	48.	-0.
24921	GTR308	DISTIL	0.	-0.003	0.	0.002	0.04	-1.	-0.	0.	1.	2.	0.	0.08	2.	0.	53.	0.
24921	GTR312	DISTIL	0.	-0.038	0.	0.005	0.10	-12.	-10.	-1.	1.	13.	2.	0.40	3.	0.	44.	-0.
24921	GTR312	DISTIL	0.	-0.003	0.	0.002	0.05	-1.	-0.	0.	1.	3.	0.	0.09	2.	0.	53.	0.
24921	GTR316	DISTIL	0.	-0.038	0.	0.004	0.10	-13.	-10.	-1.	1.	13.	2.	0.39	3.	0.	46.	-0.
24921	GTR316	DISTIL	0.	-0.003	0.	0.002	0.05	-1.	-0.	0.	1.	3.	0.	0.09	2.	0.	53.	0.
24921	FCPADS	DISTIL	0.	-0.034	0.	0.009	0.19	-8.	-7.	-0.	6.	17.	2.	0.60	3.	0.	49.	-1.
24921	FCPADS	DISTIL	0.	-0.008	0.	0.004	0.08	-2.	-2.	-0.	2.	5.	1.	0.17	2.	0.	52.	0.
24921	FCMCDS	DISTIL	0.	-0.031	0.	0.011	0.26	-11.	-6.	-0.	2.	17.	2.	0.53	3.	0.	46.	-0.
24921	FCMCDS	DISTIL	0.	-0.005	0.	0.004	0.09	-1.	-1.	-0.	2.	4.	1.	0.15	2.	0.	51.	0.
24	FCMCDS	DISTIL	-0.149	-2.485	-0.149	1.204	16.04	-836.	-939.	-86.	343.	1050.	95.	0.54	-138.	71.	14661.	-53.
26212	STM141	RESIDU	0.	-0.159	0.	0.263	0.29	-56.	31.	-8.	76.	243.	-8.	0.35	53.	0.	5.	5.
26212	STM141	COAL-F	0.	-0.159	0.	0.263	0.29	-56.	-95.	-8.	80.	136.	17.	0.26	24.	0.	18.	10.
26212	STM141	COAL-A	0.	-0.159	0.	0.263	0.29	81.	-95.	-8.	216.	136.	17.	0.41	43.	0.	8.	12.
26212	STM088	RESIDU	0.	-0.116	0.	0.191	0.21	-40.	49.	-6.	54.	199.	-11.	0.27	50.	0.	13.	3.
26212	STM088	COAL-F	0.	-0.116	0.	0.191	0.21	-40.	-69.	-6.	58.	99.	12.	0.19	18.	0.	25.	7.
26212	STM088	COAL-A	0.	-0.116	0.	0.191	0.21	86.	-69.	-6.	185.	99.	12.	0.33	34.	0.	16.	9.
26212	PFBSTM	COAL-P	0.	-0.174	0.	0.273	0.30	101.	-105.	5.	245.	140.	31.	0.47	25.	0.	21.	9.
26212	PFBSTM	COAL-P	0.	-0.267	0.	0.419	0.36	110.	-160.	13.	331.	215.	53.	0.54	48.	22.	16.	12.
26212	TISTMT	RESIDU	0.	-0.173	0.	0.275	0.30	-61.	26.	-9.	79.	251.	-8.	0.36	-18.	0.	45.	-5.
26212	TISTMT	RESIDU	0.	-0.218	0.	0.346	0.33	-76.	8.	-11.	100.	295.	-5.	0.39	-21.	11.	44.	-6.
26212	TISTMT	COAL	0.	-0.173	0.	0.275	0.30	-61.	-104.	-9.	83.	141.	18.	0.27	-52.	0.	61.	-1.
26212	TISTMT	COAL	0.	-0.354	0.	0.562	0.40	-124.	-213.	-18.	171.	289.	37.	0.37	-72.	44.	51.	-2.
26212	TIHRSG	RESIDU	0.	-0.150	0.	0.125	0.14	-53.	35.	-8.	31.	166.	-16.	0.20	-33.	0.	65.	-10.
26212	TIHRSG	COAL	0.	-0.244	0.	0.202	0.22	-85.	-146.	-12.	58.	98.	14.	0.19	-92.	0.	86.	-7.
26212	STIRL	DISTIL	0.	-0.250	0.	0.198	0.22	-0.	81.	11.	144.	326.	38.	0.57	34.	0.	26.	-6.
26212	STIRL	DISTIL	0.	-0.371	0.	0.295	0.26	-28.	47.	9.	186.	411.	49.	0.59	44.	20.	29.	-8.
26212	STIRL	RESIDU	0.	-0.250	0.	0.198	0.22	-87.	-5.	-20.	51.	218.	-22.	0.28	34.	0.	22.	-0.

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
26212	STIRL	RESIDU	0.	-0.371	0.	0.295	0.26	-130.	-53.	-33.	78.	285.	-27.	0.31	44.	20.	24.	-1.
26212	STIRL	COAL	0.	-0.250	0.	0.198	0.22	-87.	-150.	-12.	57.	95.	14.	0.19	-4.	0.	38.	5.
26212	STIRL	COAL	0.	-0.602	0.	0.479	0.31	-211.	-361.	-30.	137.	230.	34.	0.27	-6.	59.	36.	3.
26212	HEGT85	COAL-A	0.	-0.384	0.	0.063	0.07	43.	-231.	-19.	187.	14.	7.	0.23	-33.	0.	60.	-3.
26212	HEGT85	COAL-A	0.	-4.771	0.	0.788	0.13	-786.	-2863.	-239.	1002.	178.	91.	0.23	-108.	479.	46.	-61.
26212	HEGT60	COAL-A	0.	-0.364	0.	0.084	0.09	41.	-218.	-18.	185.	26.	8.	0.25	-27.	0.	56.	-1.
26212	HEGT60	COAL-A	0.	-1.484	0.	0.341	0.15	-189.	-890.	-74.	398.	108.	34.	0.25	-2.	129.	40.	-9.
26212	HEGT00	COAL-A	0.	-0.346	0.	0.101	0.11	31.	-208.	-17.	175.	37.	9.	0.25	-13.	0.	47.	1.
26212	HEGT00	COAL-A	0.	-0.571	0.	0.167	0.14	-24.	-342.	-29.	214.	61.	15.	0.25	-3.	27.	40.	0.
26212	FCMCCL	COAL	0.	-0.910	0.	0.405	0.23	165.	284.	20.	588.	1003.	98.	1.00	23.	81.	35.	-1.
26212	FCSTCL	COAL	0.	-1.187	0.	0.810	0.33	165.	284.	20.	808.	1376.	138.	1.00	54.	145.	30.	3.
26212	IGGTST	COAL	0.	-1.074	0.	0.314	0.17	-376.	-644.	16.	71.	115.	98.	0.16	34.	88.	32.	2.
26212	GTSOAR	RESIDU	-0.722	0.474	-0.722	0.922	0.22	59.	13.	18.	203.	258.	44.	0.57	48.	0.	14.	2.
26212	GTSOAR	RESIDU	-0.951	0.474	-0.951	1.336	0.29	-30.	-73.	16.	247.	398.	67.	0.56	77.	39.	19.	1.
26212	GTAC08	RESIDU	0.	-0.209	0.	0.238	0.26	-132.	11.	-17.	7.	235.	-18.	0.25	51.	0.	9.	3.
26212	GTAC08	RESIDU	0.	-0.309	0.	0.352	0.31	-230.	-29.	-28.	-23.	309.	-21.	0.24	67.	20.	12.	4.
26212	GTAC12	RESIDU	0.	-0.213	0.	0.235	0.25	-118.	10.	-15.	21.	234.	-16.	0.27	49.	0.	10.	3.
26212	GTAC12	RESIDU	0.	-0.394	0.	0.434	0.33	-281.	-63.	-35.	-21.	364.	-21.	0.26	76.	36.	15.	4.
26212	GTAC16	RESIDU	0.	-0.218	0.	0.230	0.25	-113.	8.	-15.	26.	232.	-16.	0.27	48.	0.	11.	3.
26212	GTAC16	RESIDU	0.	-0.458	0.	0.483	0.34	-319.	-88.	-40.	-23.	398.	-21.	0.26	81.	46.	17.	3.
26212	GTWC16	RESIDU	0.	-0.238	0.	0.209	0.23	-123.	-0.	-16.	16.	223.	-18.	0.25	49.	0.	12.	2.
26212	GTWC16	RESIDU	0.	-0.522	0.	0.459	0.32	-358.	-114.	-45.	-50.	393.	-26.	0.23	87.	50.	18.	2.
26212	CC1626	RESIDU	0.	-0.241	0.	0.207	0.22	-105.	-1.	-14.	34.	222.	-16.	0.27	45.	0.	15.	1.
26212	CC1626	RESIDU	0.	-0.832	0.	0.715	0.36	-544.	-238.	-68.	-56.	569.	-29.	0.25	125.	103.	21.	1.
26212	CC1622	RESIDU	0.	-0.231	0.	0.217	0.24	-102.	3.	-14.	36.	226.	-16.	0.28	45.	0.	14.	2.
26212	CC1622	RESIDU	0.	-0.717	0.	0.675	0.36	-475.	-192.	-60.	-36.	534.	-25.	0.27	110.	89.	20.	2.
26212	CC1222	RESIDU	0.	-0.229	0.	0.219	0.24	-101.	3.	-14.	37.	227.	-15.	0.28	46.	0.	14.	2.
26212	CC1222	RESIDU	0.	-0.707	0.	0.678	0.36	-469.	-188.	-59.	-32.	534.	-24.	0.27	112.	88.	20.	2.
26212	CC0822	RESIDU	0.	-0.213	0.	0.235	0.25	-102.	10.	-14.	37.	234.	-15.	0.29	49.	0.	10.	3.
26212	CC0822	RESIDU	0.	-0.524	0.	0.578	0.37	-359.	-115.	-45.	-12.	458.	-20.	0.28	95.	61.	17.	4.
26212	STIG15	RESIDU	0.	-0.370	0.	0.077	0.08	-150.	-53.	-17.	-12.	166.	-24.	0.15	44.	0.	26.	-4.
26212	STIG15	RESIDU	0.	-30.541	0.	6.387	0.17	-18369.	-12122.	-913.	-6721.	7144.	33.	0.01	2334.	3421.	36.	-473.
26212	STIG10	RESIDU	0.	-0.337	0.	0.111	0.12	-144.	-40.	-15.	-8.	181.	-21.	0.17	46.	0.	22.	-2.
26212	STIG10	RESIDU	0.	-2.569	0.	0.846	0.22	-1586.	-933.	-74.	-510.	844.	7.	0.09	237.	278.	32.	-31.
26212	STIG1S	RESIDU	0.	-0.321	0.	0.126	0.14	-145.	-34.	-13.	-7.	187.	-19.	0.18	46.	0.	21.	-2.
26212	STIG1S	RESIDU	0.	-1.438	0.	0.565	0.23	-907.	-480.	-40.	-277.	558.	3.	0.12	151.	146.	29.	-14.
26212	DEADV3	RESIDU	0.	-0.293	0.	0.155	0.17	-156.	-22.	-17.	-18.	200.	-21.	0.18	27.	0.	29.	-3.
26212	DEADV3	RESIDU	0.	-1.493	0.	0.788	0.29	-1525.	-502.	-119.	-806.	686.	-63.	-0.07	76.	172.	37.	-22.
26212	DEHTPM	RESIDU	0.	-0.217	0.	0.230	0.25	-161.	8.	-15.	-22.	232.	-16.	0.22	29.	0.	22.	0.
26212	DEHTPM	RESIDU	0.	-0.467	0.	0.495	0.34	-550.	-92.	-40.	-248.	406.	-21.	0.10	41.	48.	28.	-2.
26212	DESOA3	DISTIL	-0.791	0.474	-0.791	0.922	0.14	-42.	156.	24.	96.	377.	19.	0.55	19.	0.	41.	-11.
26212	DESOA3	DISTIL	-2.358	0.474	-2.358	3.135	0.25	-3759.	-99.	24.	-2920.	1286.	87.	-0.53	37.	207.	49.	-57.
26212	DESOA3	RESIDU	-0.791	0.474	-0.791	0.922	0.14	-317.	-13.	17.	-173.	232.	44.	0.12	19.	0.	35.	-5.
26212	DESOA3	RESIDU	-2.358	0.474	-2.358	3.135	0.25	-8216.	-603.	5.	-7360.	852.	162.	-2.16	37.	207.	43	-38.
26212	GTSOAD	DISTIL	-0.699	0.474	-0.699	0.922	0.24	115.	17	24.	253.	395.	22.	0.75	51.	0.	1	-3.
26212	GTSOA'	DISTIL	-0.875	0.474	-0.875	1.273	0.31	43.	14	24.	293.	553.	36.	0.73	78.	33.	19.	-4.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
26212	GTRA08	DISTIL	0.	-0.243	0.	0.205	0.22	-17.	83.	12.	127.	328.	38.	0.55	43.	0.	20.	-5.
26212	GTRA08	DISTIL	0.	-0.725	0.	0.613	0.34	-263.	-53.	3.	167.	679.	83.	0.54	98.	83.	27.	-10.
26212	GTRA12	DISTIL	0.	-0.237	0.	0.211	0.23	-15.	84.	12.	129.	329.	38.	0.56	43.	0.	20.	-5.
26212	GTRA12	DISTIL	0.	-0.690	0.	0.613	0.34	-249.	-43.	4.	170.	669.	81.	0.55	96.	80.	26.	-9.
26212	GTRA16	DISTIL	0.	-0.236	0.	0.212	0.23	-17.	85.	12.	127.	330.	38.	0.56	42.	0.	20.	-5.
26212	GTRA16	DISTIL	0.	-0.638	0.	0.575	0.34	-229.	-29.	5.	162.	635.	77.	0.55	88.	72.	26.	-9.
26212	GTR208	DISTIL	0.	-0.236	0.	0.212	0.23	-23.	85.	12.	121.	330.	38.	0.55	48.	0.	17.	-4.
26212	GTR208	DISTIL	0.	-0.528	0.	0.474	0.32	-185.	2.	7.	138.	551.	66.	0.54	86.	52.	23.	-6.
26212	GTR212	DISTIL	0.	-0.237	0.	0.211	0.23	-21.	84.	12.	123.	329.	38.	0.55	47.	0.	17.	-4.
26212	GTR212	DISTIL	0.	-0.569	0.	0.507	0.33	-201.	-9.	6.	145.	579.	70.	0.54	89.	59.	24.	-7.
26212	GTR216	DISTIL	0.	-0.233	0.	0.215	0.23	-18.	86.	12.	126.	331.	38.	0.56	46.	0.	17.	-4.
26212	GTR216	DISTIL	0.	-0.573	0.	0.530	0.34	-202.	-10.	6.	152.	593.	71.	0.55	88.	61.	24.	-7.
26212	GTRW08	DISTIL	0.	-0.275	0.	0.173	0.19	-25.	74.	11.	119.	319.	37.	0.53	44.	0.	23.	-6.
26212	GTRW08	DISTIL	0.	-0.979	0.	0.615	0.30	-365.	-125.	-1.	148.	747.	93.	0.51	119.	108.	30.	-16.
26212	GTRW12	DISTIL	0.	-0.262	0.	0.185	0.20	-20.	77.	11.	124.	322.	38.	0.54	44.	0.	22.	-6.
26212	GTRW12	DISTIL	0.	-0.948	0.	0.670	0.32	-352.	-116.	-0.	168.	769.	95.	0.52	121.	110.	28.	-14.
26212	GTRW16	DISTIL	0.	-0.259	0.	0.188	0.20	-21.	78.	11.	123.	323.	38.	0.54	43.	0.	22.	-5.
26212	GTRW16	DISTIL	0.	-0.867	0.	0.629	0.32	-320.	-93.	1.	161.	725.	90.	0.52	118.	98.	27.	-12.
26212	GTR308	DISTIL	0.	-0.288	0.	0.160	0.17	-37.	70.	11.	107.	315.	37.	0.52	45.	0.	23.	-7.
26212	GTR308	DISTIL	0.	-0.783	0.	0.435	0.26	-286.	-69.	2.	105.	597.	74.	0.48	102.	72.	28.	-14.
26212	GTR312	DISTIL	0.	-0.256	0.	0.192	0.21	-23.	79.	11.	121.	324.	38.	0.54	45.	0.	20.	-5.
26212	GTR312	DISTIL	0.	-0.742	0.	0.558	0.31	-270.	-58.	3.	148.	653.	80.	0.52	108.	80.	26.	-10.
26212	GTR316	DISTIL	0.	-0.257	0.	0.191	0.21	-24.	79.	11.	120.	324.	38.	0.54	44.	0.	21.	-5.
26212	GTR316	DISTIL	0.	-0.734	0.	0.546	0.31	-267.	-55.	3.	145.	644.	79.	0.52	105.	78.	26.	-10.
26212	FCPADS	DISTIL	0.	-0.302	0.	0.146	0.16	-10.	89.	12.	134.	334.	38.	0.57	31.	0.	13.	-13.
26212	FCPADS	DISTIL	0.	-1.897	0.	0.919	0.28	-307.	201.	19.	599.	1741.	185.	0.82	110.	222.	52.	-75.
26212	FCMCDS	DISTIL	0.	-0.252	0.	0.195	0.21	-28.	94.	11.	116.	339.	38.	0.55	29.	0.	39.	-11.
26212	FCMCDS	DISTIL	0.	-1.256	0.	0.972	0.36	-985.	199.	-3.	-268.	1417.	129.	0.50	83.	167.	47.	-48.
26214	STM141	RESIDU	0.	-0.098	0.	0.162	0.25	-34.	38.	-5.	46.	166.	-9.	0.32	39.	0.	-4.	2.
26214	STM141	RESIDU	0.	-0.132	0.	0.218	0.30	-46.	24.	-7.	62.	200.	-7.	0.36	48.	8.	-1.	3.
26214	STM141	COAL-F	0.	-0.098	0.	0.162	0.25	-34.	-59.	-5.	49.	83.	10.	0.23	15.	0.	18.	6.
26214	STM141	COAL-F	0.	-0.132	0.	0.218	0.30	-46.	-79.	-7.	66.	112.	14.	0.27	20.	8.	17.	7.
26214	STM141	COAL-A	0.	-0.098	0.	0.162	0.25	70.	-59.	-5.	153.	83.	10.	0.39	20.	0.	13.	6.
26214	STM141	COAL-A	0.	-0.132	0.	0.218	0.30	65.	-79.	-7.	178.	112.	14.	0.43	35.	8.	6.	9.
26214	STM088	RESIDU	0.	-0.097	0.	0.161	0.25	-34.	38.	-5.	45.	165.	-9.	0.32	42.	0.	-7.	3.
26214	STM088	COAL-F	0.	-0.097	0.	0.161	0.25	-34.	-58.	-5.	49.	83.	10.	0.23	15.	0.	17.	6.
26214	STM088	COAL-A	0.	-0.097	0.	0.161	0.25	70.	-58.	-5.	153.	83.	10.	0.39	28.	0.	5.	8.
26214	PFBSTM	COAL-P	0.	-0.101	0.	0.159	0.25	79.	-60.	1.	163.	82.	16.	0.42	13.	0.	23.	5.
26214	PFBSTM	COAL-P	0.	-0.216	0.	0.341	0.36	90.	-130.	10.	269.	175.	43.	0.54	38.	28.	17.	8.
26214	TISTMT	RESIDU	0.	-0.100	0.	0.159	0.25	-35.	37.	-5.	45.	164.	-9.	0.32	-10.	0.	44.	-4.
26214	TISTMT	RESIDU	0.	-0.183	0.	0.290	0.34	-64.	4.	-9.	84.	246.	-4.	0.40	-18.	20.	45.	-6.
26214	TISTMT	COAL	0.	-0.100	0.	0.159	0.25	-35.	-60.	-5.	48.	82.	10.	0.22	-36.	0.	67.	-1.
26214	TISTMT	COAL	0.	-0.286	0.	0.454	0.40	-100.	-171.	-14.	138.	233.	30.	0.37	-62.	45.	52.	-4.
26214	TIHRSG	RESIDU	0.	-0.205	0.	0.054	0.08	-72.	-5.	-10.	7.	119.	-19.	0.17	-34.	0.	81.	-11.
26214	TIHRSG	RESIDU	0.	-0.122	0.	0.101	0.16	-43.	28.	-6.	25.	135.	-13.	0.24	-28.	0.	69.	-8.
26214	TIHRSG	COAL	0.	-0.142	0.	0.118	0.18	-50.	-85.	-7.	34.	57.	8.	0.16	-68.	0.	101.	-6.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
26214	TIHRSG	COAL	0.	-0.191	0.	0.158	0.22	-57.	-114.	-10.	46.	76.	11.	0.19	-78.	8.	90.	-7.
26214	STIRL	DISTIL	0.	-0.145	0.	0.115	0.18	13.	82.	10.	97.	224.	26.	0.55	26.	0.	20.	-5.
26214	STIRL	DISTIL	0.	-0.301	0.	0.239	0.26	-23.	38.	8.	151.	334.	40.	0.59	38.	26.	28.	-8.
26214	STIRL	RESIDU	0.	-0.145	0.	0.115	0.18	-51.	19.	-10.	29.	145.	-16.	0.25	25.	0.	16.	-1.
26214	STIRL	RESIDU	0.	-0.301	0.	0.239	0.26	-105.	-43.	-27.	63.	232.	-23.	0.31	38.	26.	23.	-2.
26214	STIRL	COAL	0.	-0.145	0.	0.115	0.18	-51.	-87.	-7.	33.	55.	8.	0.15	-0.	0.	36.	3.
26214	STIRL	COAL	0.	-0.471	0.	0.374	0.30	-165.	-283.	-24.	107.	180.	27.	0.27	-1.	55.	35.	2.
26214	HEGT85	COAL-A	0.	-0.223	0.	0.037	0.06	51.	-134.	-11.	134.	8.	4.	0.23	-18.	0.	60.	-1.
26214	HEGT85	COAL-A	0.	-3.731	0.	0.616	0.13	-612.	-2239.	-187.	786.	139.	71.	0.23	-58.	383.	44.	-45.
26214	HEGT60	COAL-A	0.	-0.211	0.	0.049	0.08	50.	-127.	-11.	133.	15.	5.	0.24	-15.	0.	56.	-1.
26214	HEGT60	COAL-A	0.	-1.160	0.	0.267	0.15	-146.	-696.	-58.	313.	84.	26.	0.25	-11.	109.	42.	-10.
26214	HEGT00	COAL-A	0.	-0.201	0.	0.059	0.09	44.	-121.	-10.	127.	22.	5.	0.25	-12.	0.	52.	-0.
26214	HEGT00	COAL-A	0.	-0.446	0.	0.131	0.14	-16.	-268.	-22.	170.	48.	12.	0.25	-6.	30.	42.	-2.
26214	FCMCCL	COAL	0.	-0.697	0.	0.331	0.23	134.	231.	17.	465.	793.	77.	1.00	14.	72.	36.	-2.
26214	FCSTCL	COAL	0.	-0.926	0.	0.666	0.34	134.	231.	16.	647.	1102.	110.	1.00	38.	125.	31.	1.
26214	IGGTST	COAL	0.	-0.837	0.	0.275	0.18	-293.	-502.	13.	65.	106.	79.	0.18	25.	80.	32.	0.
26214	GTSOAR	RESIDU	-0.529	0.385	-0.529	0.645	0.18	67.	32.	15.	151.	174.	30.	0.57	32.	0.	8.	0.
26214	GTSOAR	RESIDU	-0.773	0.385	-0.773	1.086	0.29	-28.	-60.	13.	197.	323.	55.	0.56	63.	41.	18.	-0.
26214	GTAC08	RESIDU	0.	-0.121	0.	0.138	0.21	-65.	28.	-8.	15.	155.	-13.	0.25	34.	0.	4.	1.
26214	GTAC08	RESIDU	0.	-0.251	0.	0.286	0.31	-193.	-23.	-24.	-25.	251.	-17.	0.24	58.	26.	11.	2.
26214	GTAC12	RESIDU	0.	-0.124	0.	0.136	0.21	-57.	28.	-8.	23.	154.	-13.	0.26	34.	0.	5.	1.
26214	GTAC12	RESIDU	0.	-0.320	0.	0.352	0.33	-234.	-51.	-29.	-23.	296.	-17.	0.25	65.	39.	14.	2.
26214	GTAC16	RESIDU	0.	-0.126	0.	0.133	0.21	-54.	27.	-7.	26.	153.	-12.	0.27	33.	0.	6.	1.
26214	GTAC16	RESIDU	0.	-0.372	0.	0.393	0.34	-265.	-72.	-33.	-25.	324.	-18.	0.26	69.	47.	16.	1.
26214	GTWC16	RESIDU	0.	-0.138	0.	0.121	0.19	-60.	22.	-8.	20.	148.	-14.	0.25	33.	0.	7.	0.
26214	GTWC16	RESIDU	0.	-0.424	0.	0.373	0.32	-297.	-93.	-37.	-46.	319.	-22.	0.22	74.	50.	17.	0.
26214	CC1626	RESIDU	0.	-0.139	0.	0.120	0.19	-49.	21.	-7.	31.	148.	-13.	0.26	33.	0.	8.	0.
26214	CC1626	RESIDU	0.	-0.687	0.	0.593	0.36	-454.	-198.	-57.	-50.	470.	-24.	0.25	103.	96.	21.	-1.
26214	CC1622	RESIDU	0.	-0.133	0.	0.126	0.20	-47.	24.	-7.	32.	150.	-12.	0.27	33.	0.	7.	0.
26214	CC1622	RESIDU	0.	-0.592	0.	0.560	0.36	-397.	-160.	-50.	-34.	441.	-21.	0.27	91.	84.	20.	-0.
26214	CC1222	RESIDU	0.	-0.132	0.	0.127	0.20	-47.	24.	-7.	33.	151.	-12.	0.27	33.	0.	6.	0.
26214	CC1222	RESIDU	0.	-0.584	0.	0.563	0.37	-392.	-157.	-49.	-31.	441.	-20.	0.27	93.	83.	19.	0.
26214	CC0822	RESIDU	0.	-0.123	0.	0.136	0.21	-47.	28.	-7.	33.	155.	-12.	0.28	34.	0.	5.	1.
26214	CC0822	RESIDU	0.	-0.434	0.	0.480	0.37	-302.	-96.	-38.	-14.	379.	-16.	0.28	82.	61.	16.	2.
26214	STIG15	RESIDU	0.	-0.215	0.	0.045	0.07	-75.	-9.	-11.	4.	115.	-19.	0.16	29.	0.	22.	-3.
26214	STIG15	RESIDU	0.	-24.815	0.	5.189	0.17	-14931.	-9849.	-741.	-5467.	5804.	27.	0.01	1894.	2790.	36.	-386.
26214	STIG10	RESIDU	0.	-0.195	0.	0.064	0.10	-72.	-1.	-9.	7.	124.	-17.	0.18	34.	0.	15.	-2.
26214	STIG10	RESIDU	0.	-2.087	0.	0.688	0.22	-1294.	-758.	-59.	-420.	685.	6.	0.09	191.	236.	32.	-27.
26214	STIG1S	RESIDU	0.	-0.186	0.	0.073	0.11	-73.	2.	-9.	6.	127.	-16.	0.19	34.	0.	14.	-2.
26214	STIG1S	RESIDU	0.	-1.169	0.	0.459	0.23	-743.	-390.	-32.	-231.	453.	3.	0.12	127.	128.	28.	-13.
26214	DEADV3	RESIDU	0.	-0.170	0.	0.090	0.14	-63.	9.	-9.	16.	134.	-16.	0.22	23.	0.	21.	-2.
26214	DEADV3	RESIDU	0.	-1.213	0.	0.640	0.29	-1253.	-408.	-97.	-669.	557.	-51.	-0.08	64.	149.	36.	-19.
26214	DEHTPM	RESIDU	0.	-0.126	0.	0.134	0.21	-66.	27.	-7.	14.	153.	-12.	0.25	22.	0.	17.	-1.
26214	DEHTPM	RESIDU	0.	-0.379	0.	0.402	0.34	-461.	-75.	-33.	-215.	330.	-18.	0.09	36.	49.	27.	-3.
26214	DESOA3	DISTIL	-0.569	0.385	-0.569	0.645	0.12	97.	139	19.	176.	264.	12.	0.72	19.	0.	33.	-8.
26214	DESOA3	STIL	-1.916	0.385	-1.916	2.547	0.25	-3098.	-80.	19.	-2417.	1045.	71.	-0.54	32.	178.	49.	-48.

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ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

TIME 1990 LEVEL ALL

FUEL UNITS =

EMISSION UNITS=

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
26214	DES0A3	RESIDU	-0.569	0.385	-0.569	0.645	0.12	22.	17.	15.	105.	159.	30.	0.47	19.	0.	27.	-3.
26214	DES0A3	RESIDU	-1.916	0.385	-1.916	2.547	0.25	-6768.	-490.	4.	-6073.	692.	132.	-2.20	32.	178.	43.	-32.
26214	GTS0AD	DISTIL	-0.516	0.385	-0.516	0.645	0.20	110.	147.	19.	190.	274.	14.	0.76	35.	0.	8.	-3.
26214	GTS0AD	DISTIL	-0.711	0.385	-0.711	1.034	0.31	31.	116.	19.	234.	449.	29.	0.72	67.	37.	17.	-4.
26214	GTRA08	DISTIL	0.	-0.141	0.	0.119	0.18	11.	83.	10.	95.	225.	26.	0.55	32.	0.	13.	-4.
26214	GTRA08	DISTIL	0.	-0.589	0.	0.498	0.34	-218.	-43.	3.	132.	551.	67.	0.54	86.	78.	25.	-9.
26214	GTRA12	DISTIL	0.	-0.138	0.	0.122	0.19	12.	84.	10.	96.	226.	26.	0.55	31.	0.	13.	-4.
26214	GTRA12	DISTIL	0.	-0.561	0.	0.498	0.34	-207.	-35.	3.	134.	544.	66.	0.54	83.	75.	25.	-8.
26214	GTRA16	DISTIL	0.	-0.137	0.	0.123	0.19	11.	84.	10.	95.	226.	26.	0.55	31.	0.	13.	-4.
26214	GTRA16	DISTIL	0.	-0.519	0.	0.467	0.34	-190.	-23.	4.	127.	516.	62.	0.54	76.	68.	25.	-8.
26214	GTR208	DISTIL	0.	-0.137	0.	0.123	0.19	8.	84.	10.	91.	226.	26.	0.55	33.	0.	12.	-4.
26214	GTR208	DISTIL	0.	-0.429	0.	0.385	0.32	-154.	2.	5.	108.	447.	54.	0.53	71.	52.	23.	-7.
26214	GTR212	DISTIL	0.	-0.137	0.	0.122	0.19	9.	84.	10.	92.	226.	26.	0.55	32.	0.	12.	-4.
26214	GTR212	DISTIL	0.	-0.462	0.	0.412	0.33	-167.	-7.	5.	114.	471.	57.	0.54	73.	58.	23.	-7.
26214	GTR216	DISTIL	0.	-0.135	0.	0.125	0.19	10.	85.	10.	94.	227.	26.	0.55	31.	0.	12.	-4.
26214	GTR216	DISTIL	0.	-0.465	0.	0.431	0.34	-168.	-8.	5.	120.	482.	58.	0.54	73.	60.	24.	-7.
26214	GTRW08	DISTIL	0.	-0.160	0.	0.100	0.16	6.	78.	10.	90.	220.	25.	0.53	32.	0.	16.	-5.
26214	GTRW08	DISTIL	0.	-0.796	0.	0.500	0.30	-301.	-101.	-1.	116.	607.	76.	0.50	103.	97.	28.	-14.
26214	GTRW12	DISTIL	0.	-0.152	0.	0.108	0.17	9.	80.	10.	93.	222.	26.	0.54	32.	0.	15.	-5.
26214	GTRW12	DISTIL	0.	-0.770	0.	0.544	0.32	-290.	-94.	-0.	133.	625.	77.	0.52	104.	99.	27.	-12.
26214	GTRW16	DISTIL	0.	-0.150	0.	0.109	0.17	9.	80.	10.	93.	222.	26.	0.54	31.	0.	15.	-5.
26214	GTRW16	DISTIL	0.	-0.704	0.	0.511	0.32	-264.	-76.	1.	127.	589.	73.	0.52	96.	90.	27.	-12.
26214	GTR308	DISTIL	0.	-0.167	0.	0.093	0.14	-1.	76.	10.	83.	218.	25.	0.52	33.	0.	17.	-5.
26214	GTR308	DISTIL	0.	-0.636	0.	0.353	0.26	-237.	-56.	2.	82.	485.	60.	0.48	85.	68.	28.	-12.
26214	GTR312	DISTIL	0.	-0.148	0.	0.111	0.17	8.	81.	10.	91.	223.	26.	0.54	33.	0.	13.	-5.
26214	GTR312	DISTIL	0.	-0.603	0.	0.453	0.31	-224.	-47.	2.	116.	531.	65.	0.52	88.	75.	25.	-10.
26214	GTR316	DISTIL	0.	-0.149	0.	0.111	0.17	7.	81.	10.	91.	223.	26.	0.54	32.	0.	14.	-5.
26214	GTR316	DISTIL	0.	-0.596	0.	0.444	0.31	-221.	-45.	3.	114.	524.	64.	0.52	86.	73.	26.	-10.
26214	FCPADS	DISTIL	0.	-0.175	0.	0.085	0.13	6.	74.	10.	90.	216.	25.	0.53	25.	0.	35.	-9.
26214	FCPADS	DISTIL	0.	-1.542	0.	0.747	0.28	-248.	170.	16.	488.	1422.	151.	0.82	91.	190.	52.	-62.
26214	FCMCDS	DISTIL	0.	-0.146	0.	0.113	0.18	13.	82.	10.	96.	224.	26.	0.55	24.	0.	31.	-8.
26214	FCMCDS	DISTIL	0.	-1.021	0.	0.790	0.36	-813.	168.	-2.	-230.	1158.	105.	0.50	69.	145.	47.	-40.
26216	STM141	RESIDU	0.	-0.061	0.	0.101	0.21	-21.	36.	-3.	28.	114.	-8.	0.29	22.	0.	5.	0.
26216	STM141	COAL-F	0.	-0.061	0.	0.101	0.21	-21.	-37.	-3.	31.	52.	7.	0.19	8.	0.	21.	4.
26216	STM141	COAL-A	0.	-0.061	0.	0.101	0.21	57.	-37.	-3.	109.	52.	7.	0.36	16.	0.	11.	5.
26216	STM088	RESIDU	0.	-0.044	0.	0.073	0.15	-15.	43.	-2.	20.	97.	-9.	0.23	18.	0.	16.	-1.
26216	STM088	COAL-F	0.	-0.044	0.	0.073	0.15	-15.	-26.	-2.	22.	38.	5.	0.14	6.	0.	27.	3.
26216	STM088	COAL-A	0.	-0.044	0.	0.073	0.15	59.	-26.	-2.	97.	38.	5.	0.30	13.	0.	18.	3.
26216	PFBSTM	COAL-P	0.	-0.070	0.	0.109	0.23	72.	-42.	6.	130.	56.	17.	0.43	3.	0.	32.	2.
26216	PFBSTM	COAL-P	0.	-0.104	0.	0.162	0.29	76.	-62.	9.	161.	83.	25.	0.49	12.	8.	23.	4.
26216	TISTMT	RESIDU	0.	-0.069	0.	0.110	0.23	-24.	33.	-3.	31.	120.	-8.	0.30	-15.	0.	56.	-5.
26216	TISTMT	RESIDU	0.	-0.138	0.	0.218	0.33	-48.	6.	-7.	63.	187.	-3.	0.39	-27.	17.	54.	-7.
26216	TISTMT	COAL	0.	-0.069	0.	0.110	0.23	-24.	-42.	-3.	33.	56.	7.	0.21	-35.	0.	83.	-2.
26216	TISTMT	COAL	0.	-0.138	0.	0.218	0.33	-48.	-83.	-7.	66.	112.	14.	0.30	-48.	17.	65.	-3.
26216	TIHRSG	RESIDU	0.	-0.096	0.	0.080	0.17	-34.	22.	-5.	20.	106.	-10.	0.25	-33.	0.	86.	-8.
26216	TIHRSG	COAL	0.	-0.096	0.	0.080	0.17	-34.	-58.	-5.	23.	38.	6.	0.14	-53.	0.	108.	-5.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
26216	STIRL	DISTIL	0.	-0.100	0.	0.079	0.16	13.	69.	8.	71.	166.	19.	0.55	15.	0.	24.	-5.
26216	STIRL	DISTIL	0.	-0.237	0.	0.188	0.26	-18.	30.	6.	119.	263.	31.	0.59	24.	23.	31.	-7.
26216	STIRL	RESIDU	0.	-0.100	0.	0.079	0.16	-35.	21.	-11.	20.	107.	-17.	0.23	15.	0.	20.	-2.
26216	STIRL	RESIDU	0.	-0.237	0.	0.188	0.26	-83.	-34.	-26.	50.	182.	-23.	0.30	24.	23.	27.	-3.
26216	STIRL	COAL	0.	-0.100	0.	0.079	0.16	-35.	-60.	-5.	23.	38.	6.	0.14	-4.	0.	43.	1.
26216	STIRL	COAL	0.	-0.237	0.	0.188	0.26	-83.	-142.	-12.	54.	90.	13.	0.23	-2.	23.	36.	1.
26216	HEGT85	COAL-A	0.	-0.154	0.	0.025	0.05	36.	-92.	-8.	94.	6.	3.	0.22	-22.	0.	74.	-2.
26216	HEGT85	COAL-A	0.	-1.878	0.	0.310	0.12	-290.	-1127.	-94.	414.	70.	36.	0.22	-29.	188.	44.	-22.
26216	HEGT60	COAL-A	0.	-0.146	0.	0.033	0.07	35.	-87.	-7.	93.	11.	3.	0.23	-20.	0.	70.	-2.
26216	HEGT60	COAL-A	0.	-0.584	0.	0.134	0.13	-55.	-350.	-29.	176.	42.	13.	0.24	-25.	51.	49.	-7.
26216	HEGT00	COAL-A	0.	-0.139	0.	0.041	0.08	31.	-83.	-7.	89.	15.	4.	0.23	-16.	0.	63.	-1.
26216	HEGT00	COAL-A	0.	-0.225	0.	0.066	0.11	10.	-135.	-11.	104.	24.	6.	0.23	-14.	10.	51.	-1.
26216	FCMCCL	COAL	0.	-0.084	0.	0.096	0.20	37.	63.	5.	94.	161.	15.	0.58	-14.	0.	55.	-0.
26216	FCMCCL	COAL	0.	-0.241	0.	0.276	0.34	106.	182.	14.	272.	465.	44.	1.00	-5.	32.	37.	0.
26216	FCSTCL	COAL	0.	-0.080	0.	0.099	0.21	24.	42.	3.	82.	140.	14.	0.50	-12.	0.	53.	0.
26216	FCSTCL	COAL	0.	-0.348	0.	0.432	0.40	106.	182.	14.	357.	608.	60.	1.00	3.	56.	33.	1.
26216	IGGTST	COAL	0.	-0.101	0.	0.079	0.16	-35.	-60.	4.	22.	38.	15.	0.16	-11.	0.	52.	0.
26216	IGGTST	COAL	0.	-0.304	0.	0.237	0.28	-106.	-182.	12.	68.	114.	44.	0.28	2.	34.	33.	1.
26216	GTS0AR	RESIDU	-0.402	0.303	-0.402	0.483	0.17	34.	31.	12.	92.	128.	23.	0.52	19.	0.	14.	-1.
26216	GTS0AR	RESIDU	-0.608	0.303	-0.608	0.855	0.29	-46.	-47.	10.	131.	254.	43.	0.53	44.	35.	21.	-1.
26216	GTAC08	RESIDU	0.	-0.084	0.	0.095	0.20	-82.	27.	-10.	-28.	114.	-15.	0.15	20.	0.	9.	-0.
26216	GTAC08	RESIDU	0.	-0.198	0.	0.225	0.31	-195.	-18.	-23.	-62.	198.	-18.	0.17	38.	23.	15.	0.
26216	GTAC12	RESIDU	0.	-0.085	0.	0.094	0.19	-77.	27.	-9.	-22.	113.	-14.	0.16	20.	0.	10.	-1.
26216	GTAC12	RESIDU	0.	-0.252	0.	0.277	0.33	-227.	-40.	-27.	-61.	233.	-18.	0.19	44.	33.	17.	0.
26216	GTAC16	RESIDU	0.	-0.087	0.	0.092	0.19	-75.	26.	-9.	-20.	112.	-14.	0.17	19.	0.	11.	-1.
26216	GTAC16	RESIDU	0.	-0.293	0.	0.309	0.34	-252.	-56.	-30.	-62.	255.	-19.	0.20	47.	40.	19.	-0.
26216	GTWC16	RESIDU	0.	-0.095	0.	0.084	0.17	-79.	23.	-10.	-24.	109.	-15.	0.15	19.	0.	13.	-1.
26216	GTWC16	RESIDU	0.	-0.334	0.	0.293	0.32	-276.	-73.	-34.	-79.	251.	-22.	0.17	50.	42.	20.	-1.
26216	CC1626	RESIDU	0.	-0.096	0.	0.083	0.17	-72.	22.	-9.	-17.	108.	-14.	0.16	19.	0.	14.	-1.
26216	CC1626	RESIDU	0.	-0.529	0.	0.454	0.35	-393.	-151.	-48.	-83.	361.	-24.	0.21	73.	75.	22.	-2.
26216	CC1622	RESIDU	0.	-0.092	0.	0.087	0.18	-71.	24.	-9.	-16.	110.	-14.	0.17	19.	0.	13.	-1.
26216	CC1622	RESIDU	0.	-0.456	0.	0.428	0.36	-349.	-122.	-43.	-71.	339.	-21.	0.22	64.	66.	22.	-1.
26216	CC1222	RESIDU	0.	-0.092	0.	0.088	0.18	-70.	24.	-9.	-16.	110.	-14.	0.17	20.	0.	12.	-1.
26216	CC1222	RESIDU	0.	-0.449	0.	0.430	0.36	-345.	-119.	-42.	-68.	339.	-20.	0.22	66.	66.	21.	-1.
26216	CC0822	RESIDU	0.	-0.085	0.	0.094	0.19	-71.	27.	-9.	-16.	113.	-14.	0.18	20.	0.	11.	-1.
26216	CC0822	RESIDU	0.	-0.333	0.	0.366	0.37	-275.	-72.	-33.	-55.	291.	-18.	0.23	55.	49.	19.	0.
26216	STIG15	RESIDU	0.	-0.148	0.	0.031	0.06	-89.	1.	-4.	-35.	86.	-12.	0.08	15.	0.	30.	-4.
26216	STIG15	RESIDU	0.	-19.534	0.	4.085	0.17	-11796.	-7753.	-580.	-4346.	4569.	25.	0.01	1479.	2198.	36.	-306.
26216	STIG10	RESIDU	0.	-0.135	0.	0.044	0.09	-87.	7.	-4.	-33.	92.	-10.	0.10	18.	0.	22.	-3.
26216	STIG10	RESIDU	0.	-1.643	0.	0.541	0.22	-1062.	-596.	-43.	-373.	540.	8.	0.07	143.	188.	33.	-22.
26216	STIG1S	RESIDU	0.	-0.129	0.	0.051	0.10	-88.	9.	-3.	-33.	94.	-10.	0.11	19.	0.	21.	-2.
26216	STIG1S	RESIDU	0.	-0.920	0.	0.361	0.23	-628.	-307.	-22.	-225.	357.	5.	0.09	91.	103.	30.	-11.
26216	DEADV3	RESIDU	0.	-0.117	0.	0.062	0.13	-134.	14.	-10.	-79.	99.	-16.	0.01	13.	0.	27.	-3.
26216	DEADV3	RESIDU	0.	-0.955	0.	0.504	0.29	-1089.	-321.	-81.	-629.	439.	-45.	-0.14	44.	120.	37.	-16.
26216	DEHTPM	RESIDU	0.	-0.087	0.	0.092	0.19	-136.	[illegible]	-9.	-81.	112.	-14.	0.04	13.	0.	[illegible]	-2.
26216	DEHT[illegible]	RESIDU	0.	-0.298	0.	0.317	0.34	-466.	[illegible]	-31.	-272.	260.	-19.	-0.04	22.	41.	30.	-4.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

			***** FUEL SAVINGS *****				- - EMISSIONS SAVINGS - - -								CAPITL	ELECTRIC POWER		
PROCS	ECS	ECS FUEL	DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	SAVING	TOTAL EXPORT MWH	COST	LAEC SAVED
26216	DESOA3	DISTIL	-0.430	0.303	-0.430	0.483	0.11	-202.	112.	15.	-148.	197.	9.	0.12	9.	0.	39.	-7.
26216	DESOA3	DISTIL	-1.508	0.303	-1.508	2.005	0.25	-2759.	-63.	15.	-2223.	822.	56.	-0.71	19.	143.	50.	-39.
26216	DESOA3	RESIDU	-0.430	0.303	-0.430	0.483	0.11	-567.	20.	12.	-509.	118.	22.	-0.79	9.	0.	33.	-3.
26216	DESOA3	RESIDU	-1.508	0.303	-1.508	2.005	0.25	-6002.	-386.	3.	-5455.	545.	104.	-2.55	19.	143.	44.	-26.
26216	GTSOAD	DISTIL	-0.393	0.303	-0.393	0.483	0.18	62.	118.	15.	117.	204.	10.	0.70	21.	0.	14.	-4.
26216	GTSOAD	DISTIL	-0.560	0.303	-0.560	0.814	0.31	-6.	91.	15.	154.	354.	23.	0.68	45.	31.	21.	-5.
26216	GTRA08	DISTIL	0.	-0.097	0.	0.082	0.17	-13.	69.	8.	44.	167.	19.	0.49	18.	0.	19.	-4.
26216	GTRA08	DISTIL	0.	-0.464	0.	0.392	0.34	-201.	-34.	2.	75.	434.	53.	0.51	59.	63.	28.	-9.
26216	GTRA12	DISTIL	0.	-0.095	0.	0.084	0.17	-13.	70.	8.	45.	168.	19.	0.49	18.	0.	18.	-4.
26216	GTRA12	DISTIL	0.	-0.441	0.	0.392	0.34	-192.	-28.	3.	76.	428.	52.	0.52	59.	61.	27.	-8.
26216	GTRA16	DISTIL	0.	-0.094	0.	0.085	0.18	-13.	70.	8.	44.	168.	19.	0.49	18.	0.	19.	-4.
26216	GTRA16	DISTIL	0.	-0.408	0.	0.368	0.34	-178.	-18.	3.	71.	406.	49.	0.51	54.	56.	27.	-8.
26216	GTR208	DISTIL	0.	-0.094	0.	0.085	0.18	-16.	70.	8.	42.	168.	19.	0.49	19.	0.	17.	-4.
26216	GTR208	DISTIL	0.	-0.338	0.	0.303	0.32	-150.	1.	4.	56.	352.	42.	0.50	50.	43.	25.	-6.
26216	GTR212	DISTIL	0.	-0.095	0.	0.084	0.17	-15.	70.	8.	43.	168.	19.	0.49	19.	0.	18.	-4.
26216	GTR212	DISTIL	0.	-0.364	0.	0.324	0.33	-161.	-6.	4.	61.	370.	45.	0.51	52.	48.	26.	-7.
26216	GTR216	DISTIL	0.	-0.093	0.	0.086	0.18	-14.	70.	8.	44.	168.	19.	0.49	18.	0.	18.	-4.
26216	GTR216	DISTIL	0.	-0.366	0.	0.339	0.34	-162.	-6.	4.	65.	379.	46.	0.51	51.	49.	26.	-7.
26216	GTRW08	DISTIL	0.	-0.110	0.	0.069	0.14	-17.	66.	8.	41.	164.	19.	0.48	18.	0.	22.	-5.
26216	GTRW08	DISTIL	0.	-0.626	0.	0.393	0.30	-266.	-80.	-1.	82.	478.	60.	0.48	74.	79.	30.	-12.
26216	GTRW12	DISTIL	0.	-0.105	0.	0.074	0.15	-15.	67.	8.	43.	165.	19.	0.48	18.	0.	21.	-5.
26216	GTRW12	DISTIL	0.	-0.606	0.	0.428	0.32	-258.	-74.	-0.	75.	492.	61.	0.50	75.	80.	29.	-11.
26216	GTRW16	DISTIL	0.	-0.104	0.	0.075	0.16	-15.	67.	8.	43.	165.	19.	0.48	18.	0.	21.	-5.
26216	GTRW16	DISTIL	0.	-0.555	0.	0.403	0.32	-237.	-59.	1.	71.	464.	57.	0.50	69.	73.	29.	-10.
26216	GTR308	DISTIL	0.	-0.115	0.	0.064	0.13	-22.	64.	8.	36.	162.	19.	0.46	19.	0.	22.	-5.
26216	GTR308	DISTIL	0.	-0.500	0.	0.278	0.26	-215.	-44.	2.	35.	382.	48.	0.45	59.	56.	30.	-11.
26216	GTR312	DISTIL	0.	-0.102	0.	0.077	0.16	-16.	68.	8.	42.	166.	19.	0.48	19.	0.	19.	-5.
26216	GTR312	DISTIL	0.	-0.475	0.	0.357	0.31	-205.	-37.	2.	62.	418.	51.	0.49	63.	61.	27.	-9.
26216	GTR316	DISTIL	0.	-0.103	0.	0.076	0.16	-16.	68.	8.	42.	166.	19.	0.48	18.	0.	20.	-5.
26216	GTR316	DISTIL	0.	-0.469	0.	0.349	0.31	-203.	-35.	2.	60.	412.	50.	0.49	61.	60.	28.	-9.
26216	FCPADS	DISTIL	0.	-0.121	0.	0.058	0.12	14.	105.	11.	72.	203.	21.	0.63	14.	0.	41.	-8.
26216	FCPADS	DISTIL	0.	-1.214	0.	0.588	0.28	-190.	182.	15.	390.	1167.	122.	0.85	65.	152.	53.	-50.
26216	FCMCDS	DISTIL	0.	-0.101	0.	0.078	0.16	-60.	107.	9.	-2.	205.	19.	0.47	13.	0.	36.	-7.
26216	FCMCDS	DISTIL	0.	-0.803	0.	0.622	0.36	-729.	180.	-1.	-271.	960.	83.	0.47	48.	117.	48.	-33.
26217	STM141	RESIDU	0.	-0.033	0.	0.055	0.12	-12.	23.	-2.	15.	65.	-5.	0.17	13.	0.	39.	0.
26217	STM141	COAL-F	0.	-0.033	0.	0.055	0.12	-12.	-20.	-2.	17.	28.	4.	0.11	4.	0.	37.	2.
26217	STM141	COAL-A	0.	-0.033	0.	0.055	0.12	34.	-20.	-2.	63.	28.	4.	0.21	9.	0.	32.	2.
26217	STM088	RESIDU	0.	-0.023	0.	0.038	0.08	-8.	27.	-1.	10.	54.	-6.	0.13	12.	0.	42.	-0.
26217	STM088	COAL-F	0.	-0.023	0.	0.038	0.08	-8.	-14.	-1.	12.	20.	2.	0.08	3.	0.	39.	1.
26217	STM088	COAL-A	0.	-0.023	0.	0.038	0.08	36.	-14.	-1.	56.	20.	2.	0.18	7.	0.	35.	2.
26217	PFBSTM	COAL-P	0.	-0.058	0.	0.091	0.20	45.	-35.	5.	93.	46.	14.	0.35	5.	0.	34.	3.
26217	TISTMT	RESIDU	0.	-0.078	0.	0.124	0.27	-27.	5.	-4.	36.	107.	-2.	0.32	-20.	0.	60.	-3.
26217	TISTMT	COAL	0.	-0.078	0.	0.124	0.27	-27.	-47.	-4.	38.	63.	8.	0.25	-35.	0.	66.	-2.
26217	TIHRSG	RESIDU	0.	-0.057	0.	0.047	0.10	-20.	13.	-3.	12.	63.	-6.	0.16	-23.	0.	72.	-5.
26217	TIHRSG	COAL	0.	-0.057	0.	0.047	0.10	-20.	-34.	-3.	14.	23.	3.	0.09	-37.	0.	73.	-4.
26217	STIRL	DISTIL	0.	-0.141	0.	0.112	0.24	-11.	18.	4.	71.	157.	19.	0.56	17.	0.	32.	-2.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
26217	STIRL	RESIDU	0.	-0.141	0.	0.112	0.24	-49.	-20.	-16.	30.	109.	-13.	0.28	17.	0.	28.	1.
26217	STIRL	COAL	0.	-0.141	0.	0.112	0.24	-49.	-85.	-7.	32.	54.	8.	0.21	1.	0.	34.	3.
26217	HEGT85	COAL-A	0.	-0.241	0.	0.040	0.09	-7.	-144.	-12.	84.	9.	5.	0.22	-29.	0.	68.	-3.
26217	HEGT85	COAL-A	0.	-1.119	0.	0.185	0.12	-173.	-672.	-56.	247.	42.	21.	0.22	-39.	96.	48.	-14.
26217	HEGT60	COAL-A	0.	-0.228	0.	0.052	0.11	-8.	-137.	-11.	82.	17.	5.	0.24	-24.	0.	62.	-2.
26217	HEGT60	COAL-A	0.	-0.348	0.	0.080	0.13	-33.	-209.	-17.	105.	25.	8.	0.24	-23.	14.	54.	-3.
26217	HEGT00	COAL-A	0.	-0.134	0.	0.039	0.09	6.	-80.	-7.	62.	14.	4.	0.18	-12.	0.	51.	-0.
26217	FCMCCL	COAL	0.	-0.131	0.	0.150	0.32	57.	98.	7.	148.	252.	24.	0.96	-10.	0.	44.	2.
26217	FCMCCL	COAL	0.	-0.144	0.	0.165	0.34	63.	108.	8.	162.	277.	26.	1.00	-7.	3.	41.	2.
26217	FCSTCL	COAL	0.	-0.125	0.	0.155	0.34	39.	67.	5.	129.	221.	22.	0.84	-10.	0.	44.	2.
26217	FCSTCL	COAL	0.	-0.202	0.	0.249	0.39	63.	108.	8.	208.	355.	35.	1.00	-4.	16.	36.	2.
26217	IGGTST	COAL	0.	-0.159	0.	0.122	0.26	-55.	-95.	7.	35.	58.	23.	0.26	-7.	0.	41.	2.
26217	IGGTST	COAL	0.	-0.176	0.	0.135	0.27	-61.	-105.	7.	38.	64.	26.	0.27	-4.	3.	38.	3.
26217	GTSOAR	RESIDU	-0.336	0.181	-0.336	0.461	0.27	-17.	-18.	6.	73.	135.	23.	0.53	22.	0.	21.	2.
26217	GTSOAR	RESIDU	-0.363	0.181	-0.363	0.509	0.29	-27.	-28.	6.	78.	152.	26.	0.53	26.	5.	21.	2.
26217	GTAC08	RESIDU	0.	-0.118	0.	0.134	0.29	-116.	-11.	-14.	-37.	118.	-11.	0.16	24.	0.	19.	3.
26217	GTAC12	RESIDU	0.	-0.134	0.	0.147	0.32	-120.	-17.	-14.	-32.	127.	-10.	0.19	24.	0.	17.	3.
26217	GTAC12	RESIDU	0.	-0.150	0.	0.165	0.33	-135.	-24.	-16.	-36.	139.	-11.	0.19	27.	3.	17.	3.
26217	GTAC16	RESIDU	0.	-0.136	0.	0.144	0.31	-117.	-18.	-14.	-29.	125.	-10.	0.19	23.	0.	19.	2.
26217	GTAC16	RESIDU	0.	-0.175	0.	0.184	0.34	-150.	-34.	-18.	-37.	152.	-11.	0.20	28.	7.	19.	3.
26217	GTWC16	RESIDU	0.	-0.149	0.	0.131	0.28	-123.	-24.	-15.	-36.	120.	-12.	0.16	23.	0.	20.	2.
26217	GTWC16	RESIDU	0.	-0.199	0.	0.175	0.32	-165.	-43.	-20.	-47.	150.	-13.	0.17	30.	9.	20.	2.
26217	CC1626	RESIDU	0.	-0.151	0.	0.129	0.28	-113.	-24.	-14.	-25.	119.	-11.	0.19	22.	0.	22.	1.
26217	CC1626	RESIDU	0.	-0.308	0.	0.262	0.35	-230.	-87.	-28.	-50.	210.	-14.	0.20	42.	27.	23.	1.
26217	CC1622	RESIDU	0.	-0.145	0.	0.135	0.29	-112.	-22.	-14.	-24.	122.	-10.	0.20	22.	0.	21.	2.
26217	CC1622	RESIDU	0.	-0.265	0.	0.247	0.36	-204.	-70.	-25.	-43.	197.	-13.	0.22	37.	22.	22.	2.
26217	CC1222	RESIDU	0.	-0.144	0.	0.137	0.30	-111.	-21.	-14.	-23.	122.	-10.	0.20	22.	0.	20.	2.
26217	CC1222	RESIDU	0.	-0.261	0.	0.248	0.36	-202.	-68.	-25.	-41.	197.	-12.	0.22	38.	21.	21.	2.
26217	CC0822	RESIDU	0.	-0.134	0.	0.146	0.32	-112.	-17.	-14.	-24.	126.	-10.	0.21	23.	0.	19.	2.
26217	CC0822	RESIDU	0.	-0.193	0.	0.210	0.36	-161.	-41.	-20.	-34.	168.	-11.	0.22	32.	11.	19.	3.
26217	STIG15	RESIDU	0.	-0.232	0.	0.048	0.11	-140.	-57.	-7.	-53.	84.	-7.	0.06	21.	0.	33.	-2.
26217	STIG15	RESIDU	0.	-11.644	0.	2.435	0.17	-7031.	-4621.	-346.	-2591.	2724.	15.	0.01	876.	1294.	37.	-181.
26217	STIG10	RESIDU	0.	-0.211	0.	0.069	0.15	-136.	-48.	-6.	-49.	93.	-5.	0.09	22.	0.	29.	-1.
26217	STIG10	RESIDU	0.	-0.979	0.	0.323	0.22	-633.	-356.	-26.	-223.	322.	5.	0.07	87.	96.	32.	-11.
26217	STIG1S	RESIDU	0.	-0.201	0.	0.079	0.17	-137.	-44.	-5.	-50.	98.	-3.	0.10	23.	0.	28.	-0.
26217	STIG1S	RESIDU	0.	-0.548	0.	0.215	0.23	-374.	-183.	-13.	-134.	213.	3.	0.09	56.	45.	29.	-4.
26217	DEADV3	RESIDU	0.	-0.183	0.	0.097	0.21	-209.	-37.	-16.	-122.	105.	-14.	-0.07	13.	0.	33.	-1.
26217	DEADV3	RESIDU	0.	-0.569	0.	0.300	0.29	-649.	-191.	-48.	-375.	262.	-27.	-0.14	28.	55.	37.	-7.
26217	DEHTPM	RESIDU	0.	-0.136	0.	0.144	0.31	-212.	-18.	-14.	-124.	126.	-10.	-0.02	12.	0.	26.	1.
26217	DEHTPM	RESIDU	0.	-0.178	0.	0.189	0.34	-278.	-35.	-18.	-162.	155.	-11.	-0.04	15.	8.	29.	1.
26217	DESOA3	DISTIL	-0.379	0.181	-0.379	0.461	0.18	-412.	47.	9.	-325.	189.	10.	-0.28	8.	0.	45.	-5.
26217	DESOA3	DISTIL	-0.899	0.181	-0.899	1.195	0.25	-1645.	-38.	9.	-1325.	490.	33.	-0.71	13.	69.	49.	-20.
26217	DESOA3	RESIDU	-0.379	0.181	-0.379	0.461	0.18	-958.	-34.	6.	-867.	119.	23.	-1.65	8.	0.	40.	-2.
26217	DESOA3	RESIDU	-0.899	0.181	-0.899	1.195	0.25	-3578.	-230.	2.	-3252.	325.	62.	-2.55	13.	69.	44.	-13.
26217	GTSOAD	DISTIL	-0.322	0.181	-0.322	0.461	0.30	1.	56	9.	89.	200.	13.	0.68	25.	0.	21.	-0.
26217	GTSOAD	STIL	-0.334	0.181	-0.334	0.485	0.31	-3.	54.	9.	92.	211.	14.	0.68	28.	2.	20.	-0.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	****DIRECT***** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	- - EMISSIONS SAVINGS - - DIRECT NOX	SOX	PART	********TOTAL******** NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
26217	GTRA08	DISTIL	0.	-0.152	0.	0.128	0.28	-56.	15.	3.	34.	168.	20.	0.50	21.	0.	27.	-1.
26217	GTRA08	DISTIL	0.	-0.276	0.	0.234	0.34	-120.	-20.	1.	45.	259.	31.	0.51	36.	22.	27.	-2.
26217	GTRA12	DISTIL	0.	-0.149	0.	0.132	0.29	-55.	16.	3.	35.	169.	20.	0.51	21.	0.	26.	-1.
26217	GTRA12	DISTIL	0.	-0.263	0.	0.234	0.34	-114.	-16.	1.	46.	255.	31.	0.52	35.	20.	27.	-2.
26217	GTRA16	DISTIL	0.	-0.147	0.	0.133	0.29	-56.	16.	3.	34.	169.	20.	0.51	20.	0.	27.	-1.
26217	GTRA16	DISTIL	0.	-0.243	0.	0.219	0.34	-106.	-11.	2.	42.	242.	29.	0.51	32.	17.	27.	-2.
26217	GTR208	DISTIL	0.	-0.148	0.	0.133	0.29	-60.	16.	3.	30.	169.	20.	0.50	22.	0.	25.	-1.
26217	GTR208	DISTIL	0.	-0.201	0.	0.181	0.32	-90.	1.	3.	33.	210.	25.	0.50	30.	10.	25.	-1.
26217	GTR212	DISTIL	0.	-0.148	0.	0.132	0.29	-59.	16.	3.	32.	169.	20.	0.50	22.	0.	25.	-1.
26217	GTR212	DISTIL	0.	-0.217	0.	0.193	0.33	-96.	-3.	2.	36.	221.	27.	0.51	31.	12.	25.	-1.
26217	GTR216	DISTIL	0.	-0.146	0.	0.135	0.29	-57.	17.	3.	33.	170.	20.	0.51	21.	0.	26.	-1.
26217	GTR216	DISTIL	0.	-0.218	0.	0.202	0.34	-96.	-4.	2.	39.	226.	27.	0.51	30.	13.	26.	-1.
26217	GTRW08	DISTIL	0.	-0.172	0.	0.108	0.23	-61.	9.	3.	29.	162.	20.	0.48	21.	0.	30.	-2.
26217	GTRW08	DISTIL	0.	-0.373	0.	0.235	0.30	-158.	-48.	-0.	37.	285.	36.	0.48	43.	31.	30.	-5.
26217	GTRW12	DISTIL	0.	-0.164	0.	0.116	0.25	-58.	11.	3.	32.	165.	20.	0.49	21.	0.	28.	-2.
26217	GTRW12	DISTIL	0.	-0.361	0.	0.255	0.32	-154.	-44.	-0.	45.	293.	36.	0.50	44.	32.	29.	-4.
26217	GTRW16	DISTIL	0.	-0.162	0.	0.118	0.26	-58.	12.	3.	32.	165.	20.	0.49	20.	0.	29.	-2.
26217	GTRW16	DISTIL	0.	-0.331	0.	0.240	0.32	-141.	-35.	0.	42.	277.	34.	0.50	40.	27.	29.	-4.
26217	GTR308	DISTIL	0.	-0.180	0.	0.100	0.22	-69.	7.	3.	21.	160.	20.	0.46	22.	0.	30.	-2.
26217	GTR308	DISTIL	0.	-0.298	0.	0.166	0.26	-128.	-26.	1.	21.	227.	28.	0.45	35.	17.	30.	-4.
26217	GTR312	DISTIL	0.	-0.160	0.	0.120	0.26	-60.	13.	3.	30.	166.	20.	0.49	22.	0.	27.	-2.
26217	GTR312	DISTIL	0.	-0.283	0.	0.213	0.31	-122.	-22.	1.	37.	249.	31.	0.49	37.	20.	27.	-3.
26217	GTR316	DISTIL	0.	-0.161	0.	0.120	0.26	-60.	12.	3.	30.	166.	20.	0.49	21.	0.	28.	-2.
26217	GTR316	DISTIL	0.	-0.280	0.	0.208	0.31	-121.	-21.	1.	36.	246.	30.	0.49	36.	19.	28.	-3.
26217	FCPADS	DISTIL	0.	-0.189	0.	0.091	0.20	-13.	71.	7.	77.	224.	23.	0.74	15.	0.	48.	-7.
26217	FCPADS	DISTIL	0.	-0.723	0.	0.350	0.28	-113.	109.	9.	232.	696.	73.	0.85	40.	74.	52.	-27.
26217	FCMCDS	DISTIL	0.	-0.158	0.	0.122	0.27	-129.	74.	4.	-39.	227.	20.	0.47	14.	0.	43.	-5.
26217	FCMCDS	DISTIL	0.	-0.479	0.	0.371	0.36	-435.	108.	-1.	-162.	572.	49.	0.47	30.	53.	47.	-17.
26218	STM141	RESIDU	0.	-0.046	0.	0.077	0.20	-16.	30.	-2.	21.	88.	-7.	0.22	18.	0.	2.	0.
26218	STM141	COAL-F	0.	-0.046	0.	0.077	0.20	-16.	-28.	-2.	23.	39.	5.	0.13	6.	0.	21.	3.
26218	STM141	COAL-A	0.	-0.046	0.	0.077	0.20	46.	-28.	-2.	85.	39.	5.	0.35	12.	0.	10.	3.
26218	STM088	RESIDU	0.	-0.033	0.	0.054	0.15	-12.	35.	-2.	15.	75.	-7.	0.22	16.	0.	12.	-0.
26218	STM088	COAL-F	0.	-0.033	0.	0.054	0.15	-12.	-20.	-2.	17.	28.	4.	0.13	5.	0.	28.	2.
26218	STM088	COAL-A	0.	-0.033	0.	0.054	0.15	47.	-20.	-2.	76.	28.	4.	0.29	10.	0.	18.	3.
26218	PFBSTM	COAL-P	0.	-0.053	0.	0.082	0.22	57.	-32.	5.	101.	42.	13.	0.42	1.	0.	35.	1.
26218	PFBSTM	COAL-P	0.	-0.080	0.	0.125	0.28	60.	-48.	7.	126.	64.	19.	0.49	8.	7.	24.	3.
26218	TISTMT	RESIDU	0.	-0.052	0.	0.082	0.22	-18.	27.	-3.	23.	92.	-6.	0.30	-13.	0.	59.	-4.
26218	TISTMT	RESIDU	0.	-0.107	0.	0.169	0.33	-37.	6.	-5.	49.	146.	-3.	0.39	-24.	13.	57.	-6.
26218	TISTMT	COAL	0.	-0.052	0.	0.082	0.22	-18.	-31.	-3.	25.	42.	5.	0.20	-30.	0.	90.	-2.
26218	TISTMT	COAL	0.	-0.107	0.	0.169	0.33	-37.	-64.	-5.	51.	87.	11.	0.30	-42.	13.	69.	-3.
26218	TIHRSG	RESIDU	0.	-0.073	0.	0.061	0.16	-26.	19.	-4.	15.	83.	-8.	0.25	-28.	0.	92.	-6.
26218	TIHRSG	RESIDU	0.	-0.076	0.	0.063	0.17	-27.	18.	-4.	16.	85.	-8.	0.25	-28.	0.	90.	-6.
26218	TIHRSG	COAL	0.	-0.073	0.	0.061	0.16	-26.	-44.	-4.	18.	29.	4.	0.14	-45.	0.	120.	-5.
26218	TIHRSG	COAL	0.	-0.076	0.	0.063	0.17	-27.	-46.	-4.	18.	31.	4.	0.14	-45.	0.	115.	-4.
26218	STIRL	DISTIL	0.	-0.075	0.	0.059	0.16	12.	56.	7.	55.	129.	15.	0.54	13.	0.	22.	-4.
26218	STIRL	DISTIL	0.	-0.188	0.	0.150	0.26	-14.	24.	5.	94.	209.	25.	0.59	21.	19.	30.	-6.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT		TOTAL		FESR	EMISSIONS SAVINGS DIRECT			TOTAL			EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
			OIL+GAS	COAL	OIL+GAS	COAL		NOX	SOX	PART	NOX	SOX	PART					
26218	STIRL	RESIDU	0.	-0.075	0.	0.059	0.16	-26.	18.	-8.	15.	82.	-13.	0.23	13.	0.	17.	-1.
26218	STIRL	RESIDU	0.	-0.188	0.	0.150	0.26	-66.	-27.	-21.	40.	145.	-18.	0.30	21.	19.	26.	-2.
26218	STIRL	COAL	0.	-0.075	0.	0.059	0.16	-26.	-45.	-4.	17.	29.	4.	0.14	-4.	0.	45.	1.
26218	STIRL	COAL	0.	-0.188	0.	0.150	0.26	-66.	-113.	-9.	43.	72.	11.	0.23	-1.	19.	35.	1.
26218	HEGT85	COAL-A	0.	-0.115	0.	0.019	0.05	30.	-69.	-6.	73.	4.	2.	0.22	-19.	0.	79.	-2.
26218	HEGT85	COAL-A	0.	-1.492	0.	0.247	0.12	-230.	-895.	-75.	329.	56.	28.	0.22	-35.	150.	46.	-19.
26218	HEGT60	COAL-A	0.	-0.109	0.	0.025	0.07	29.	-66.	-5.	73.	8.	2.	0.23	-17.	0.	74.	-2.
26218	HEGT60	COAL-A	0.	-0.464	0.	0.107	0.13	-44.	-278.	-23.	140.	34.	11.	0.24	-25.	41.	61.	-6.
26218	HEGT00	COAL-A	0.	-0.104	0.	0.030	0.08	26.	-62.	-5.	70.	11.	3.	0.23	-14.	0.	68.	-1.
26218	HEGT00	COAL-A	0.	-0.179	0.	0.052	0.11	8.	-107.	-9.	82.	19.	5.	0.23	-13.	9.	53.	-1.
26218	FCMCCL	COAL	0.	-0.063	0.	0.072	0.19	27.	47.	4.	71.	121.	12.	0.55	-12.	0.	59.	-0.
26218	FCMCCL	COAL	0.	-0.192	0.	0.219	0.34	84.	144.	11.	217.	369.	35.	1.00	-6.	26.	39.	-0.
26218	FCSTCL	COAL	0.	-0.060	0.	0.074	0.20	19.	32.	2.	62.	105.	10.	0.48	-11.	0.	57.	-0.
26218	FCSTCL	COAL	0.	-0.272	0.	0.337	0.40	84.	144.	11.	280.	478.	47.	1.00	-1.	45.	34.	0.
26218	IGGTST	COAL	0.	-0.076	0.	0.059	0.16	-26.	-45.	3.	17.	28.	11.	0.15	-10.	0.	57.	-0.
26218	IGGTST	COAL	0.	-0.237	0.	0.184	0.28	-83.	-142.	10.	52.	88.	35.	0.28	-2.	27.	35.	1.
26218	GTSOAR	RESIDU	-0.315	0.241	-0.315	0.375	0.16	29.	26.	10.	72.	99.	17.	0.52	15.	0.	13.	-1.
26218	GTSOAR	RESIDU	-0.483	0.241	-0.483	0.679	0.29	-36.	-37.	8.	104.	202.	34.	0.53	35.	28.	21.	-1.
26218	GTAC08	RESIDU	0.	-0.063	0.	0.072	0.19	-62.	23.	-7.	-21.	87.	-12.	0.15	16.	0.	7.	-0.
26218	GTAC08	RESIDU	0.	-0.157	0.	0.179	0.31	-155.	-15.	-18.	-49.	157.	-14.	0.17	31.	19.	15.	0.
26218	GTAC12	RESIDU	0.	-0.064	0.	0.070	0.19	-58.	23.	-7.	-17.	87.	-11.	0.16	16.	0.	8.	-0.
26218	GTAC12	RESIDU	0.	-0.200	0.	0.220	0.33	-181.	-32.	-22.	-48.	185.	-14.	0.19	35.	27.	17.	0.
26218	GTAC16	RESIDU	0.	-0.065	0.	0.069	0.18	-56.	22.	-7.	-15.	86.	-11.	0.16	15.	0.	9.	-1.
26218	GTAC16	RESIDU	0.	-0.233	0.	0.246	0.34	-200.	-45.	-24.	-50.	203.	-15.	0.20	36.	32.	19.	-0.
26218	GTWC16	RESIDU	0.	-0.072	0.	0.063	0.17	-59.	20.	-7.	-18.	84.	-12.	0.15	15.	0.	11.	-1.
26218	GTWC16	RESIDU	0.	-0.265	0.	0.233	0.32	-220.	-58.	-27.	-63.	200.	-17.	0.17	40.	34.	20.	-1.
26218	CC1626	RESIDU	0.	-0.072	0.	0.062	0.16	-54.	19.	-7.	-13.	83.	-11.	0.16	15.	0.	13.	-1.
26218	CC1626	RESIDU	0.	-0.415	0.	0.354	0.35	-309.	-118.	-38.	-67.	283.	-19.	0.21	57.	60.	22.	-2.
26218	CC1622	RESIDU	0.	-0.069	0.	0.065	0.17	-53.	20.	-7.	-12.	85.	-11.	0.17	15.	0.	11.	-1.
26218	CC1622	RESIDU	0.	-0.357	0.	0.334	0.36	-275.	-95.	-34.	-57.	266.	-17.	0.22	50.	52.	22.	-1.
26218	CC1222	RESIDU	0.	-0.069	0.	0.065	0.17	-53.	21.	-7.	-12.	85.	-11.	0.17	16.	0.	10.	-1.
26218	CC1222	RESIDU	0.	-0.352	0.	0.336	0.36	-272.	-93.	-33.	-55.	266.	-16.	0.22	51.	52.	21.	-1.
26218	CC0822	RESIDU	0.	-0.064	0.	0.070	0.19	-53.	23.	-6.	-12.	87.	-11.	0.17	16.	0.	9.	-1.
26218	CC0822	RESIDU	0.	-0.260	0.	0.285	0.36	-216.	-56.	-26.	-45.	228.	-14.	0.23	43.	39.	19.	0.
26218	STIG15	RESIDU	0.	-0.111	0.	0.023	0.06	-67.	4.	-3.	-27.	67.	-9.	0.08	15.	0.	23.	-2.
26218	STIG15	RESIDU	0.	-15.525	0.	3.247	0.17	-9375.	-6162.	-461.	-3454.	3631.	20.	0.01	1174.	1748.	36.	-244.
26218	STIG10	RESIDU	0.	-0.101	0.	0.033	0.09	-65.	8.	-3.	-25.	71.	-8.	0.10	16.	0.	19.	-2.
26218	STIG10	RESIDU	0.	-1.306	0.	0.430	0.22	-844.	-474.	-34.	-297.	429.	7.	0.07	118.	150.	32.	-17.
26218	STIG1S	RESIDU	0.	-0.096	0.	0.038	0.10	-66.	10.	-2.	-25.	73.	-8.	0.11	16.	0.	17.	-2.
26218	STIG1S	RESIDU	0.	-0.731	0.	0.287	0.23	-499.	-244.	-17.	-179.	284.	4.	0.09	72.	83.	30.	-9.
26218	DEADV3	RESIDU	0.	-0.088	0.	0.046	0.12	-100.	13.	-7.	-60.	77.	-13.	0.01	9.	0.	28.	-2.
26218	DEADV3	RESIDU	0.	-0.759	0.	0.400	0.29	-866.	-255.	-64.	-500.	349.	-36.	-0.14	36.	96.	37.	-13.
26218	DEHTPM	RESIDU	0.	-0.065	0.	0.069	0.18	-102.	22.	-7.	-61.	86.	-11.	0.04	11.	0.	18.	-1.
26218	DEHTPM	RESIDU	0.	-0.237	0.	0.252	0.34	-370.	-47.	-25.	-216.	206.	-15.	-0.04	19.	33.	29.	-3.
26218	DESOA3	DISTIL	-0.336	0.241	-0.336	0.375	0.10	-147.	9[illegible]	12.	-107.	153.	7.	0.15	9.	0.	35.	-5.
26218	DESOA[illegible]	DISTIL	-1.199	0.241	-1.199	1.593	0.25	-2193.	-5	12.	-1767.	654.	44.	-0.71	16.	114.	50.	-31.

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
26218	DESOA3	RESIDU	-0.336	0.241	-0.336	0.375	0.10	-422.	18.	9.	-379.	92.	17.	-0.74	9.	0.	29.	-3.
26218	DESOA3	RESIDU	-1.199	0.241	-1.199	1.593	0.25	-4770.	-307.	2.	-4335.	433.	83.	-2.55	16.	114.	44.	-21.
26218	GTSOAD	DISTIL	-0.309	0.241	-0.309	0.375	0.18	51.	95.	12.	92.	159.	8.	0.71	16.	0.	12.	-3.
26218	GTSOAD	DISTIL	-0.445	0.241	-0.445	0.647	0.31	-5.	72.	12.	123.	281.	18.	0.68	36.	25.	21.	-4.
26218	GTRA08	DISTIL	0.	-0.073	0.	0.062	0.16	-8.	56.	7.	35.	130.	15.	0.49	14.	0.	17.	-4.
26218	GTRA08	DISTIL	0.	-0.368	0.	0.312	0.34	-159.	-27.	2.	59.	345.	42.	0.51	46.	51.	28.	-7.
26218	GTRA12	DISTIL	0.	-0.071	0.	0.063	0.17	-8.	57.	7.	35.	130.	15.	0.49	14.	0.	17.	-3.
26218	GTRA12	DISTIL	0.	-0.351	0.	0.311	0.34	-152.	-22.	2.	61.	340.	41.	0.52	47.	50.	27.	-6.
26218	GTRA16	DISTIL	0.	-0.071	0.	0.064	0.17	-8.	57.	7.	35.	130.	15.	0.49	14.	0.	18.	-4.
26218	GTRA16	DISTIL	0.	-0.324	0.	0.292	0.34	-142.	-15.	2.	57.	323.	39.	0.51	42.	45.	27.	-6.
26218	GTR208	DISTIL	0.	-0.071	0.	0.064	0.17	-10.	57.	7.	33.	130.	15.	0.49	15.	0.	16.	-3.
26218	GTR208	DISTIL	0.	-0.269	0.	0.241	0.32	-119.	1.	3.	44.	280.	34.	0.50	40.	35.	25.	-5.
26218	GTR212	DISTIL	0.	-0.071	0.	0.063	0.17	-10.	57.	7.	34.	130.	15.	0.49	15.	0.	16.	-3.
26218	GTR212	DISTIL	0.	-0.289	0.	0.258	0.33	-128.	-5.	3.	48.	294.	35.	0.51	41.	39.	26.	-5.
26218	GTR216	DISTIL	0.	-0.070	0.	0.065	0.17	-9.	57.	7.	34.	131.	15.	0.49	14.	0.	16.	-3.
26218	GTR216	DISTIL	0.	-0.291	0.	0.269	0.34	-129.	-5.	3.	52.	301.	36.	0.51	40.	40.	26.	-5.
26218	GTRW08	DISTIL	0.	-0.083	0.	0.052	0.14	-11.	54.	7.	32.	127.	15.	0.48	14.	0.	21.	-4.
26218	GTRW08	DISTIL	0.	-0.498	0.	0.313	0.30	-211.	-63.	-1.	50.	380.	47.	0.48	58.	63.	30.	-10.
26218	GTRW12	DISTIL	0.	-0.079	0.	0.056	0.15	-9.	55.	7.	34.	128.	15.	0.48	14.	0.	19.	-4.
26218	GTRW12	DISTIL	0.	-0.482	0.	0.341	0.32	-205.	-59.	-0.	60.	391.	48.	0.50	59.	65.	29.	-9.
26218	GTRW16	DISTIL	0.	-0.078	0.	0.057	0.15	-9.	55.	7.	34.	128.	15.	0.48	14.	0.	20.	-4.
26218	GTRW16	DISTIL	0.	-0.441	0.	0.320	0.32	-188.	-47.	0.	56.	369.	45.	0.50	54.	59.	29.	-8.
26218	GTR308	DISTIL	0.	-0.086	0.	0.048	0.13	-14.	52.	6.	29.	126.	14.	0.46	15.	0.	21.	-4.
26218	GTR308	DISTIL	0.	-0.398	0.	0.221	0.26	-171.	-35.	1.	28.	303.	38.	0.45	47.	45.	30.	-9.
26218	GTR312	DISTIL	0.	-0.077	0.	0.058	0.15	-10.	55.	7.	33.	129.	15.	0.48	15.	0.	18.	-4.
26218	GTR312	DISTIL	0.	-0.377	0.	0.284	0.31	-163.	-29.	2.	50.	332.	41.	0.49	50.	49.	27.	-7.
26218	GTR316	DISTIL	0.	-0.077	0.	0.057	0.15	-10.	55.	7.	33.	129.	15.	0.48	14.	0.	19.	-4.
26218	GTR316	DISTIL	0.	-0.373	0.	0.278	0.31	-161.	-28.	2.	48.	328.	40.	0.49	48.	48.	28.	-7.
26218	FCPADS	DISTIL	0.	-0.091	0.	0.044	0.12	12.	83.	8.	55.	157.	16.	0.62	12.	0.	37.	-6.
26218	FCPADS	DISTIL	0.	-0.965	0.	0.467	0.28	-151.	145.	12.	310.	928.	97.	0.85	53.	122.	53.	-40.
26218	FCMCDS	DISTIL	0.	-0.076	0.	0.059	0.16	-43.	85.	7.	-0.	158.	15.	0.47	12.	0.	32.	-5.
26218	FCMCDS	DISTIL	0.	-0.639	0.	0.494	0.36	-580.	143.	-1.	-215.	763.	66.	0.47	39.	94.	48.	-26.
26	FCMCDS	DISTIL	-31.420	*******	-31.420	155.870	12.84	*******	-63234.	-6009.	-39866.	140001.	7931.	0.25	20447.	25072.	13902.	-3658.
28121	STM141	RESIDU	0.	-0.062	0.	0.103	0.08	-22.	28.	-3.	29.	109.	-6.	0.10	21.	0.	50.	1.
28121	STM141	COAL-F	0.	-0.062	0.	0.103	0.08	-22.	-37.	-3.	31.	53.	7.	0.07	8.	0.	40.	4.
28121	STM141	COAL-A	0.	-0.062	0.	0.103	0.08	49.	-37.	-3.	102.	53.	7.	0.13	15.	0.	39.	5.
28121	STM088	RESIDU	0.	-0.047	0.	0.078	0.06	-16.	34.	-2.	21.	93.	-7.	0.08	19.	0.	51.	0.
28121	STM088	COAL-F	0.	-0.047	0.	0.078	0.06	-16.	-28.	-2.	24.	40.	5.	0.05	6.	0.	41.	3.
28121	STM088	COAL-A	0.	-0.047	0.	0.078	0.06	51.	-28.	-2.	91.	40.	5.	0.11	12.	0.	40.	3.
28121	PFBSTM	COAL-P	0.	-0.100	0.	0.158	0.12	65.	-60.	8.	148.	81.	23.	0.20	11.	0.	39.	5
28121	TISTMT	RESIDU	0.	-0.131	0.	0.209	0.15	-46.	1.	-7.	60.	174.	-2.	0.18	-24.	0.	57.	-3.
28121	TISTMT	COAL	0.	-0.131	0.	0.209	0.15	-46.	-79.	-7.	63.	107.	14.	0.14	-43.	0.	50.	-1.
28121	TIHRSG	RESIDU	0.	-0.079	0.	0.072	0.05	-28.	21.	-4.	18.	94.	-9.	0.08	-30.	0.	62.	-7.
28121	TIHRSG	COAL	0.	-0.079	0.	0.072	0.05	-28.	-47.	-4.	21.	35.	5.	0.05	-47.	0.	53.	-4.
28121	STIRL	DISTIL	0.	-0.214	0.	0.173	0.13	-17.	24.	5.	107.	236.	28.	0.29	23.	0.	53.	-3.
28121	STIRL	RESIDU	0.	-0.214	0.	0.173	0.13	-75.	-32.	-23.	46.	165.	-20.	0.15	23.	0.	47.	1.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL

TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28121	STIRL	COAL	0.	-0.214	0.	0.173	0.13	-75.	-128.	-11.	50.	83.	12.	0.11	0.	0.	40.	5.
28121	HEGT65	COAL-A	0.	-0.881	0.	0.207	0.15	-112.	-528.	-44.	238.	66.	20.	0.25	-40.	0.	49.	1.
28121	HEGT85	COAL-A	0.	-1.147	0.	0.269	0.16	-164.	-688.	-57.	292.	86.	27.	0.26	-35.	31.	46.	-1.
28121	HEGT60	COAL-A	0.	-0.448	0.	0.129	0.10	-37.	-269.	-22.	149.	47.	12.	0.16	-24.	0.	47.	1.
28121	HEGT00	COAL-A	0.	-0.190	0.	0.060	0.04	10.	-114.	-9.	91.	23.	5.	0.09	-13.	0.	46.	0.
28121	FCMCCL	COAL	0.	-0.210	0.	0.241	0.18	93.	159.	12.	238.	406.	39.	0.54	-6.	0.	41.	4.
28121	FCSTCL	COAL	0.	-0.320	0.	0.400	0.30	92.	159.	12.	324.	552.	54.	0.73	2.	0.	37.	9.
28121	IGGTST	COAL	0.	-0.280	0.	0.225	0.17	-98.	-168.	11.	65.	108.	40.	0.17	1.	0.	39.	6.
28121	GTSØAR	RESIDU	-0.521	0.265	-0.521	0.737	0.16	-38.	-37.	9.	114.	221.	37.	0.29	37.	0.	42.	4.
28121	GTAC08	RESIDU	0.	-0.174	0.	0.196	0.15	-170.	-16.	-20.	-55.	173.	-16.	0.08	33.	0.	44.	4.
28121	GTAC12	RESIDU	0.	-0.219	0.	0.242	0.18	-198.	-35.	-24.	-53.	203.	-16.	0.11	38.	0.	41.	5.
28121	GTAC16	RESIDU	0.	-0.252	0.	0.270	0.20	-217.	-48.	-26.	-53.	222.	-16.	0.12	40.	0.	39.	5.
28121	GTWC16	RESIDU	0.	-0.292	0.	0.256	0.19	-241.	-64.	-29.	-69.	219.	-19.	0.10	43.	0.	39.	5.
28121	CC1626	RESIDU	0.	-0.482	0.	0.420	0.31	-356.	-140.	-44.	-71.	331.	-20.	0.19	65.	0.	29.	9.
28121	CC1622	RESIDU	0.	-0.416	0.	0.396	0.29	-316.	-113.	-39.	-60.	310.	-18.	0.18	58.	0.	31.	8.
28121	CC1222	RESIDU	0.	-0.411	0.	0.398	0.29	-313.	-111.	-38.	-57.	311.	-18.	0.19	59.	0.	31.	9.
28121	CCØ822	RESIDU	0.	-0.306	0.	0.341	0.25	-250.	-69.	-30.	-46.	267.	-15.	0.16	50.	0.	35.	7.
28121	STIG15	RESIDU	0.	-0.899	0.	0.188	0.14	-543.	-307.	-27.	-202.	253.	-9.	0.03	69.	0.	36.	-2.
28121	STIG15	RESIDU	0.	-17.062	0.	3.568	0.17	-10303.	-6772.	-507.	-3796.	3991.	22.	0.01	1274.	1833.	36.	-254.
28121	STIG10	RESIDU	0.	-0.818	0.	0.269	0.20	-529.	-274.	-22.	-187.	288.	-0.	0.08	72.	0.	32.	2.
28121	STIG10	RESIDU	0.	-1.435	0.	0.473	0.22	-927.	-521.	-38.	-326.	471.	7.	0.07	124.	77.	33.	-6.
28121	STIG1S	RESIDU	0.	-0.781	0.	0.307	0.23	-533.	-259.	-18.	-191.	304.	4.	0.09	75.	0.	30.	4.
28121	STIG1S	RESIDU	0.	-0.804	0.	0.316	0.23	-548.	-268.	-19.	-196.	312.	5.	0.09	78.	3.	30.	3.
28121	DEADV3	RESIDU	0.	-0.699	0.	0.389	0.29	-807.	-227.	-60.	-465.	339.	-34.	-0.13	34.	0.	37.	2.
28121	DEADV3	RESIDU	0.	-0.774	0.	0.431	0.29	-894.	-257.	-66.	-514.	371.	-36.	-0.13	38.	11.	37.	1.
28121	DEHTPM	RESIDU	0.	-0.259	0.	0.294	0.22	-405.	-51.	-27.	-231.	236.	-15.	-0.01	22.	0.	43.	3.
28121	DESØA3	DISTIL	-1.022	0.265	-1.022	1.353	0.24	-1740.	-7.	13.	-1398.	557.	37.	-0.63	14.	0.	49.	-11.
28121	DESØA3	DISTIL	-1.232	0.265	-1.232	1.655	0.26	-2246.	-41.	13.	-1810.	682.	46.	-0.70	17.	28.	49.	-17.
28121	DESØA3	RESIDU	-1.022	0.265	-1.022	1.353	0.24	-3818.	-226.	5.	-3468.	369.	69.	-2.38	14.	0.	43.	-3.
28121	DESØA3	RESIDU	-1.232	0.265	-1.232	1.655	0.26	-4897.	-305.	3.	-4450.	455.	86.	-2.51	17.	28.	43.	-7.
28121	GTSØAD	DISTIL	-0.486	0.255	-0.486	0.708	0.16	-4.	80.	13.	135.	308.	20.	0.36	39.	0.	48.	0.
28121	GTRA08	DISTIL	0.	-0.383	0.	0.340	0.25	-166.	-23.	2.	66.	372.	45.	0.38	49.	0.	40.	1.
28121	GTRA12	DISTIL	0.	-0.368	0.	0.340	0.25	-160.	-19.	2.	67.	368.	44.	0.38	50.	0.	40.	2.
28121	GTRA16	DISTIL	0.	-0.342	0.	0.320	0.24	-150.	-12.	3.	63.	350.	42.	0.36	45.	0.	42.	1.
28121	GTR208	DISTIL	0.	-0.286	0.	0.265	0.20	-128.	4.	4.	50.	305.	37.	0.31	42.	0.	45.	0.
28121	GTR212	DISTIL	0.	-0.308	0.	0.283	0.21	-137.	-2.	4.	54.	321.	38.	0.32	44.	0.	44.	1.
28121	GTR216	DISTIL	0.	-0.310	0.	0.296	0.22	-137.	-3.	3.	58.	328.	39.	0.33	43.	0.	44.	1.
28121	GTRW08	DISTIL	0.	-0.523	0.	0.341	0.25	-223.	-63.	-0.	56.	410.	51.	0.41	62.	0.	37.	0.
28121	GTRW12	DISTIL	0.	-0.510	0.	0.372	0.27	-217.	-59.	0.	66.	423.	52.	0.43	63.	0.	36.	1.
28121	GTRW16	DISTIL	0.	-0.470	0.	0.350	0.26	-201.	-48.	1.	63.	401.	49.	0.40	58.	0.	38.	1.
28121	GTR308	DISTIL	0.	-0.417	0.	0.244	0.18	-180.	-33.	2.	33.	328.	41.	0.32	50.	0.	44.	-2.
28121	GTR312	DISTIL	0.	-0.407	0.	0.311	0.23	-176.	-30.	2.	55.	363.	44.	0.36	54.	0.	40.	1.
28121	GTR316	DISTIL	0.	-0.403	0.	0.305	0.23	-174.	-29.	2.	53.	358.	44.	0.36	52.	0.	41.	0.
28121	FCPADS	DISTIL	0.	-0.733	0.	0.355	0.26	-105.	136.	12.	245.	731.	76.	0.83	41.	0.	[illegible]	-18.
28121	FCPADS	DISTIL	0.	-1.060	0.	0.513	0.28	-166.	1[illegible]	13.	341.	1020.	106.	0.85	57.	46.	[illegible]	-30.
28121	FCMC[illegible]	DISTIL	0.	-0.613	0.	0.474	0.35	-553.	1[illegible]	0.	-203.	743.	64.	0.47	37.	0.	48.	-12.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28121	FCMCDS	DISTIL	0.	-0.702	0.	0.543	0.36	-637.	158.	-1.	-237.	838.	72.	0.47	42.	15.	47.	-15.
28191	STM141	RESIDU	0.	-0.099	0.	0.164	0.14	-35.	148.	-5.	42.	261.	-31.	0.23	45.	0.	-9.	-5.
28191	STM141	RESIDU	0.	-0.113	0.	0.187	0.15	-39.	143.	-6.	49.	275.	-30.	0.24	50.	3.	-8.	-4.
28191	STM141	COAL-F	0.	-0.099	0.	0.164	0.14	-35.	-59.	-5.	50.	84.	11.	0.12	9.	0.	25.	5.
28191	STM141	COAL-F	0.	-0.113	0.	0.187	0.15	-39.	-68.	-6.	57.	96.	12.	0.14	17.	3.	17.	6.
28191	STM141	COAL-A	0.	-0.099	0.	0.164	0.14	188.	-59.	-5.	273.	84.	11.	0.31	28.	0.	7.	7.
28191	STM141	COAL-A	0.	-0.113	0.	0.187	0.15	186.	-68.	-6.	283.	96.	12.	0.32	33.	3.	5.	8.
28191	STM088	RESIDU	0.	-0.065	0.	0.108	0.09	-23.	162.	-3.	25.	226.	-33.	0.18	41.	0.	1.	-6.
28191	STM088	COAL-F	0.	-0.065	0.	0.108	0.09	-23.	-39.	-3.	33.	56.	7.	0.08	10.	0.	26.	4.
28191	STM088	COAL-A	0.	-0.065	0.	0.108	0.09	193.	-39.	-3.	249.	56.	7.	0.26	23.	0.	15.	5.
28191	PFBSTM	COAL-P	0.	-0.106	0.	0.157	0.13	218.	-63.	13.	303.	80.	28.	0.35	15.	0.	24.	4.
28191	PFBSTM	COAL-P	0.	-0.243	0.	0.362	0.23	240.	-146.	29.	435.	185.	65.	0.46	46.	32.	17.	8.
28191	TISTMT	RESIDU	0.	-0.102	0.	0.161	0.13	-36.	147.	-5.	41.	259.	-31.	0.23	-13.	0.	47.	-13.
28191	TISTMT	RESIDU	0.	-0.332	0.	0.523	0.29	-116.	55.	-17.	149.	484.	-17.	0.36	-44.	56.	49.	-20.
28191	TISTMT	COAL	0.	-0.102	0.	0.161	0.13	-36.	-61.	-5.	49.	82.	10.	0.12	-53.	0.	84.	-4.
28191	TISTMT	COAL	0.	-0.332	0.	0.523	0.29	-116.	-199.	-17.	159.	268.	34.	0.27	-91.	56.	58.	-8.
28191	TIHRSG	RESIDU	0.	-0.179	0.	0.083	0.07	-63.	116.	-9.	13.	226.	-38.	0.17	-32.	0.	74.	-18.
28191	TIHRSG	RESIDU	0.	-0.402	0.	0.187	0.12	-141.	27.	-20.	39.	309.	-39.	0.21	-70.	31.	75.	-28.
28191	TIHRSG	COAL	0.	-0.179	0.	0.083	0.07	-63.	-108.	-9.	22.	36.	7.	0.05	-71.	0.	107.	-8.
28191	TIHRSG	COAL	0.	-0.402	0.	0.187	0.12	-141.	-241.	-20.	49.	81.	15.	0.10	-119.	31.	88.	-15.
28191	STIRL	DISTIL	0.	-0.154	0.	0.109	0.09	77.	255.	28.	162.	399.	44.	0.51	27.	0.	20.	-18.
28191	STIRL	DISTIL	0.	-0.622	0.	0.437	0.22	-30.	124.	20.	310.	703.	83.	0.57	56.	75.	34.	-28.
28191	STIRL	RESIDU	0.	-0.154	0.	0.109	0.09	-54.	126.	-18.	22.	237.	-46.	0.18	27.	0.	16.	-9.
28191	STIRL	RESIDU	0.	-0.622	0.	0.437	0.22	-218.	-61.	-72.	111.	471.	-72.	0.27	55.	75.	30.	-15.
28191	STIRL	COAL	0.	-0.154	0.	0.109	0.09	-54.	-93.	-8.	31.	51.	8.	0.09	-14.	0.	51.	1.
28191	STIRL	COAL	0.	-0.622	0.	0.437	0.22	-218.	-373.	-31.	123.	206.	32.	0.19	-22.	75.	41.	-3.
28191	HEGT00	COAL-A	0.	-0.218	0.	0.045	0.04	150.	-131.	-11.	235.	13.	5.	0.21	-18.	0.	60.	-2.
28191	HEGT00	COAL-A	0.	-0.788	0.	0.161	0.09	15.	-473.	-39.	320.	46.	17.	0.21	0.	64.	41.	-5.
28191	FCMCCL	COAL	0.	-0.124	0.	0.139	0.12	53.	92.	7.	138.	235.	23.	0.33	-20.	0.	56.	-0.
28191	FCMCCL	COAL	0.	-0.758	0.	0.853	0.33	327.	562.	43.	846.	1443.	138.	1.00	35.	126.	30.	3.
28191	FCSTCL	COAL	0.	-0.119	0.	0.144	0.12	41.	71.	5.	126.	214.	21.	0.31	-18.	0.	54.	-0.
28191	FCSTCL	COAL	0.	-0.942	0.	1.144	0.38	327.	562.	42.	999.	1703.	166.	1.00	58.	171.	28.	5.
28191	IGGTST	COAL	0.	-0.153	0.	0.109	0.09	-54.	-92.	7.	31.	52.	23.	0.09	-14.	0.	50.	0.
28191	IGGTST	COAL	0.	-0.812	0.	0.579	0.25	-284.	-487.	33.	163.	274.	121.	0.25	33.	106.	29.	4.
28191	GTSOAR	RESIDU	-1.098	0.938	-1.098	1.201	0.09	167.	149.	38.	251.	293.	54.	0.51	37.	0.	6.	-8.
28191	GTSOAR	RESIDU	-2.097	0.938	-2.097	2.838	0.26	-196.	-227.	30.	415.	813.	143.	0.51	143.	154.	25.	-15.
28191	GTAC08	RESIDU	0.	-0.122	0.	0.140	0.12	-121.	139.	-14.	-44.	251.	-41.	0.14	39.	0.	7.	-6.
28191	GTAC08	RESIDU	0.	-0.608	0.	0.696	0.31	-599.	-56.	-71.	-191.	611.	-56.	0.17	117.	98.	16.	-4.
28191	GTAC12	RESIDU	0.	-0.125	0.	0.137	0.11	-113.	137.	-14.	-36.	249.	-41.	0.15	38.	0.	0.	-7.
28191	GTAC12	RESIDU	0.	-0.782	0.	0.857	0.33	-703.	-125.	-85.	-189.	720.	-56.	0.19	136.	129.	18.	-4.
28191	GTAC16	RESIDU	0.	-0.132	0.	0.131	0.11	-111.	135.	-13.	-35.	247.	-41.	0.14	38.	0.	2.	-7.
28191	GTAC16	RESIDU	0.	-0.959	0.	0.956	0.33	-810.	-196.	-98.	-208.	794.	-61.	0.19	150.	155.	20.	-6.
28191	GTWC16	RESIDU	0.	-0.140	0.	0.123	0.10	-116.	132.	-14.	-39.	243.	-42.	0.14	38.	0.	3.	-7.
28191	GTWC16	RESIDU	0.	-1.028	0.	0.907	0.32	-851.	-223.	-103.	-243.	776.	-68.	0.17	158.	157.	21.	-8.
28191	CC1626	RESIDU	0.	-0.144	0.	0.119	0.10	-110.	130.	-13.	-33.	241.	-41.	0.14	38.	0.	3.	-8.
28191	CC1626	RESIDU	0.	-1.461	0.	1.202	0.33	-1111.	-397.	-137.	-272.	988.	-75.	0.19	210.	225.	22.	-10.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

TIME 1990 LEVEL ALL

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28191	CC1622	RESIDU	0.	-0.138	0.	0.125	0.10	-109.	132.	-13.	-32.	244.	-41.	0.14	38.	0.	3.	-7.
28191	CC1622	RESIDU	0.	-1.253	0.	1.132	0.34	-986.	-314.	-121.	-235.	925.	-67.	0.20	182.	199.	22.	-9.
28191	CC1222	RESIDU	0.	-0.137	0.	0.126	0.10	-108.	133.	-13.	-32.	244.	-41.	0.15	39.	0.	2.	-7.
28191	CC1222	RESIDU	0.	-1.231	0.	1.134	0.34	-973.	-305.	-119.	-229.	924.	-66.	0.20	186.	197.	21.	-8.
28191	CC0822	RESIDU	0.	-0.127	0.	0.135	0.11	-110.	137.	-13.	-33.	248.	-40.	0.15	39.	0.	0.	-7.
28191	CC0822	RESIDU	0.	-0.895	0.	0.950	0.34	-772.	-171.	-93.	-192.	784.	-57.	0.20	157.	148.	18.	-4.
28191	DEHTPM	RESIDU	0.	-0.154	0.	0.109	0.09	-241.	126.	-16.	-165.	237.	-44.	0.02	21.	0.	22.	-10.
28191	DEHTPM	RESIDU	0.	-0.908	0.	0.643	0.26	-1425.	-176.	-94.	-940.	618.	-76.	-0.17	32.	121.	38.	-24.
28191	GTSOAD	DISTIL	-1.072	0.938	-1.072	1.201	0.11	251.	389.	47.	328.	500.	20.	0.72	40.	0.	4.	-16.
28191	GTSOAD	DISTIL	-1.759	0.938	-1.759	2.543	0.31	-24.	277.	47.	480.	1102.	72.	0.68	141.	126.	22.	-20.
28191	GTRA08	DISTIL	0.	-0.161	0.	0.102	0.09	36.	254.	28.	120.	397.	44.	0.47	33.	0.	15.	-18.
28191	GTRA08	DISTIL	0.	-2.009	0.	1.279	0.30	-850.	-267.	-3.	207.	1531.	191.	0.48	222.	284.	32.	-46.
28191	GTRA12	DISTIL	0.	-0.154	0.	0.108	0.09	37.	255.	28.	122.	399.	44.	0.48	36.	0.	11.	-17.
28191	GTRA12	DISTIL	0.	-1.795	0.	1.263	0.32	-765.	-207.	0.	219.	1466.	181.	0.49	210.	262.	31.	-41.
28191	GTRA16	DISTIL	0.	-0.151	0.	0.111	0.09	37.	256.	28.	121.	400.	44.	0.48	35.	0.	11.	-17.
28191	GTRA16	DISTIL	0.	-1.586	0.	1.167	0.32	-681.	-148.	4.	204.	1358.	167.	0.50	185.	234.	31.	-37.
28191	GTR208	DISTIL	0.	-0.149	0.	0.114	0.09	34.	257.	28.	118.	401.	44.	0.48	37.	0.	9.	-17.
28191	GTR208	DISTIL	0.	-1.226	0.	0.938	0.30	-537.	-46.	10.	159.	1137.	138.	0.49	161.	178.	28.	-30.
28191	GTR212	DISTIL	0.	-0.149	0.	0.114	0.09	35.	257.	28.	120.	401.	44.	0.48	37.	0.	9.	-17.
28191	GTR212	DISTIL	0.	-1.317	0.	1.009	0.31	-574.	-72.	9.	174.	1200.	146.	0.49	168.	193.	29.	-32.
28191	GTR216	DISTIL	0.	-0.147	0.	0.116	0.10	36.	257.	28.	121.	401.	44.	0.48	36.	0.	10.	-17.
28191	GTR216	DISTIL	0.	-1.341	0.	1.059	0.32	-583.	-79.	8.	189.	1234.	150.	0.50	167.	200.	29.	-32.
28191	GTRW08	DISTIL	0.	-0.175	0.	0.088	0.07	32.	250.	28.	116.	393.	44.	0.47	33.	0.	17.	-18.
28191	GTRW08	DISTIL	0.	-2.540	0.	1.275	0.27	-1063.	-416.	-12.	164.	1670.	214.	0.46	275.	333.	33.	-58.
28191	GTRW12	DISTIL	0.	-0.165	0.	0.098	0.08	35.	252.	28.	120.	396.	44.	0.47	33.	0.	15.	-18.
28191	GTRW12	DISTIL	0.	-2.326	0.	1.387	0.30	-977.	-356.	-9.	217.	1674.	211.	0.48	268.	324.	32.	-50.
28191	GTRW16	DISTIL	0.	-0.161	0.	0.102	0.08	36.	253.	28.	120.	397.	44.	0.47	33.	0.	15.	-18.
28191	GTRW16	DISTIL	0.	-2.025	0.	1.281	0.30	-857.	-271.	-3.	207.	1536.	192.	0.48	235.	285.	31.	-45.
28191	GTR308	DISTIL	0.	-0.183	0.	0.080	0.07	24.	247.	28.	109.	391.	43.	0.46	37.	0.	14.	-18.
28191	GTR308	DISTIL	0.	-1.946	0.	0.848	0.23	-825.	-249.	-2.	74.	1279.	163.	0.43	209.	237.	34.	-50.
28191	GTR312	DISTIL	0.	-0.155	0.	0.108	0.09	35.	255.	28.	120.	399.	44.	0.48	37.	0.	10.	-17.
28191	GTR312	DISTIL	0.	-1.596	0.	1.112	0.31	-685.	-151.	4.	186.	1331.	164.	0.49	209.	229.	29.	-35.
28191	GTR316	DISTIL	0.	-0.155	0.	0.107	0.09	35.	255.	28.	119.	399.	44.	0.48	37.	0.	10.	-17.
28191	GTR316	DISTIL	0.	-1.572	0.	1.087	0.30	-676.	-144.	4.	180.	1311.	162.	0.49	202.	225.	29.	-35.
28191	FCPADS	DISTIL	0.	-0.177	0.	0.086	0.07	80.	311.	32.	164.	455.	47.	0.56	25.	0.	35.	-22.
28191	FCPADS	DISTIL	0.	-3.752	0.	1.817	0.28	-586.	563.	47.	1206.	3609.	377.	0.85	230.	498.	52.	-159.
28191	FCMCDS	DISTIL	0.	-0.148	0.	0.115	0.10	-29.	314.	29.	56.	458.	44.	0.47	24.	0.	31.	-21.
28191	FCMCDS	DISTIL	0.	-2.484	0.	1.922	0.36	-2255.	558.	-4.	-838.	2967.	256.	0.47	158.	389.	48.	-107.
28192	STM141	RESIDU	0.	-0.198	0.	0.328	0.14	-69.	296.	-10.	84.	521.	-62.	0.23	98.	0.	-13.	-9.
28192	STM141	RESIDU	0.	-0.226	0.	0.374	0.15	-79.	285.	-11.	98.	550.	-60.	0.24	106.	7.	-11.	-8.
28192	STM141	COAL-F	0.	-0.198	0.	0.328	0.14	-69.	-119.	-10.	100.	169.	21.	0.12	33.	0.	17.	12.
28192	STM141	COAL-F	0.	-0.226	0.	0.374	0.15	-79.	-135.	-11.	114.	192.	24.	0.14	37.	7.	16.	13.
28192	STM141	COAL-A	0.	-0.198	0.	0.328	0.14	377.	-119.	-10.	546.	169.	21.	0.31	63.	0.	4.	15.
28192	STM141	COAL-A	0.	-0.226	0.	0.374	0.15	373.	-135.	-11.	566.	192.	24.	0.32	73.	7.	2.	17.
28192	STM086	RESIDU	0.	-0.130	0.	0.216	0.09	-46.	32[illegible]	-7.	51.	452.	-66.	0.18	88.	0.	-1[illegible]	-12.
28192	STM08[illegible]	[illegible]AL-F	0.	-0.130	0.	0.216	0.09	-46.	-7[illegible]	-7.	66.	111.	14.	0.08	22.	0.	25.	8.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****DIRECT***** OIL+GAS	COAL	*****TOTAL---- OIL+GAS	COAL	FESR	DIRECT NOX	SOX	PART	TOTAL NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28192	STM088	COAL-A	0.	-0.130	0.	0.216	0.09	386.	-78.	-7.	497.	111.	14.	0.26	53.	0.	12.	12.
28192	PFBSTM	COAL-P	0.	-0.211	0.	0.314	0.13	437.	-127.	25.	606.	161.	56.	0.35	43.	0.	16.	11.
28192	PFBSTM	COAL-P	0.	-0.487	0.	0.725	0.23	480.	-292.	58.	870.	371.	130.	0.46	105.	64.	14.	18.
28192	TISTMT	RESIDU	0.	-0.204	0.	0.321	0.13	-71.	294.	-10.	82.	519.	-62.	0.23	-0.	0.	34.	-22.
28192	TISTMT	RESIDU	0.	-0.665	0.	1.046	0.29	-233.	109.	-33.	299.	969.	-34.	0.36	-86.	111.	48.	-39.
28192	TISTMT	COAL	0.	-0.204	0.	0.321	0.13	-71.	-123.	-10.	98.	165.	21.	0.12	-68.	0.	55.	-2.
28192	TISTMT	COAL	0.	-0.665	0.	1.046	0.29	-233.	-399.	-33.	318.	537.	68.	0.27	-189.	111.	58.	-5.
28192	TIHRSG	RESIDU	0.	-0.359	0.	0.167	0.07	-125.	232.	-18.	27.	452.	-76.	0.17	-35.	0.	81.	-32.
28192	TIHRSG	RESIDU	0.	-0.804	0.	0.375	0.12	-282.	54.	-40.	78.	618.	-78.	0.21	-140.	61.	75.	-55.
28192	TIHRSG	COAL	0.	-0.359	0.	0.167	0.07	-125.	-215.	-18.	44.	72.	13.	0.05	-104.	0.	88.	-10.
28192	TIHRSG	COAL	0.	-0.804	0.	0.375	0.12	-282.	-483.	-40.	98.	162.	30.	0.10	-238.	61.	88.	-31.
28192	STIRL	DISTIL	0.	-0.309	0.	0.217	0.09	154.	511.	57.	323.	798.	88.	0.51	59.	0.	17.	-36.
28192	STIRL	DISTIL	0.	-1.244	0.	0.875	0.22	-61.	248.	41.	621.	1406.	168.	0.57	114.	149.	34.	-55.
28192	STIRL	RESIDU	0.	-0.309	0.	0.217	0.09	-108.	252.	-36.	45.	474.	-92.	0.18	59.	0.	13.	-18.
28192	STIRL	RESIDU	0.	-1.244	0.	0.875	0.22	-435.	-122.	-145.	223.	943.	-144.	0.27	114.	149.	29.	-29.
28192	STIRL	COAL	0.	-0.309	0.	0.217	0.09	-108.	-185.	-15.	61.	102.	16.	0.08	-17.	0.	45.	3.
28192	STIRL	COAL	0.	-1.244	0.	0.875	0.22	-435.	-746.	-62.	246.	412.	63.	0.19	-39.	149.	40.	-4.
28192	HEGT00	COAL-A	0.	-0.436	0.	0.089	0.04	300.	-262.	-22.	469.	26.	9.	0.21	-9.	0.	46.	1.
28192	HEGT00	COAL-A	0.	-1.576	0.	0.323	0.09	30.	-946.	-79.	641.	93.	34.	0.21	51.	129.	35.	-4.
28192	FCMCCL	COAL	0.	-0.247	0.	0.278	0.12	107.	183.	14.	276.	471.	45.	0.33	-14.	0.	43.	3.
28192	FCMCCL	COAL	0.	-1.517	0.	1.707	0.33	655.	1125.	85.	1693.	2888.	276.	1.00	125.	253.	26.	13.
28192	FCSTCL	COAL	0.	-0.237	0.	0.288	0.12	82.	142.	11.	252.	429.	42.	0.31	-12.	0.	42.	4.
28192	FCSTCL	COAL	0.	-1.886	0.	2.290	0.38	655.	1124.	84.	1998.	3408.	332.	1.00	177.	342.	24.	19.
28192	IGGTST	COAL	0.	-0.307	0.	0.219	0.09	-107.	-184.	14.	62.	103.	46.	0.09	-2.	0.	37.	5.
28192	IGGTST	COAL	0.	-1.625	0.	1.159	0.25	-569.	-975.	76.	327.	548.	241.	0.25	88.	212.	27.	11.
28192	GTSOAR	RESIDU	-2.197	1.877	-2.197	2.403	0.09	334.	299.	76.	503.	586.	107.	0.51	80.	0.	3.	-16.
28192	GTSOAR	RESIDU	-4.196	1.877	-4.196	5.679	0.26	-392.	-453.	60.	831.	1626.	285.	0.51	304.	307.	24.	-27.
28192	GTAC08	RESIDU	0.	-0.245	0.	0.281	0.12	-241.	277.	-29.	-88.	501.	-83.	0.14	83.	0.	-3.	-12.
28192	GTAC08	RESIDU	0.	-1.217	0.	1.394	0.31	-1199.	-111.	-143.	-383.	1224.	-112.	0.17	242.	196.	15.	-7.
28192	GTAC12	RESIDU	0.	-0.251	0.	0.275	0.11	-226.	275.	-27.	-72.	499.	-81.	0.15	81.	0.	-2.	-13.
28192	GTAC12	RESIDU	0.	-1.564	0.	1.716	0.33	-1408.	-250.	-169.	-378.	1440.	-113.	0.19	280.	258.	18.	-8.
28192	GTAC16	RESIDU	0.	-0.263	0.	0.262	0.11	-222.	270.	-27.	-69.	493.	-81.	0.14	80.	0.	-0.	-13.
28192	GTAC16	RESIDU	0.	-1.920	0.	1.913	0.33	-1621.	-392.	-197.	-417.	1590.	-122.	0.19	304.	310.	20.	-12.
28192	GTWC16	RESIDU	0.	-0.279	0.	0.246	0.10	-231.	264.	-28.	-78.	486.	-83.	0.14	81.	0.	0.	-14.
28192	GTWC16	RESIDU	0.	-2.056	0.	1.816	0.32	-1703.	-447.	-207.	-487.	1552.	-135.	0.17	327.	314.	20.	-14.
28192	CC1626	RESIDU	0.	-0.288	0.	0.237	0.10	-219.	260.	-27.	-66.	483.	-82.	0.14	81.	0.	1.	-14.
28192	CC1626	RESIDU	0.	-2.923	0.	2.406	0.33	-2223.	-794.	-279.	-545.	1977.	-150.	0.19	435.	451.	21.	-18.
28192	CC1622	RESIDU	0.	-0.276	0.	0.249	0.10	-217.	265.	-27.	-64.	488.	-82.	0.14	80.	0.	0.	-14.
28192	CC1622	RESIDU	0.	-2.507	0.	2.266	0.34	-1974.	-628.	-242.	-471.	1851.	-134.	0.20	380.	398.	21.	-15.
28192	CC1222	RESIDU	0.	-0.274	0.	0.252	0.10	-216.	266.	-26.	-63.	489.	-81.	0.15	82.	0.	-0.	-14.
28192	CC1222	RESIDU	0.	-2.464	0.	2.269	0.34	-1948.	-610.	-238.	-458.	1848.	-132.	0.20	389.	395.	20.	-13.
28192	CC0822	RESIDU	0.	-0.255	0.	0.271	0.11	-220.	273.	-27.	-67.	497.	-81.	0.15	83.	0.	-2.	-13.
28192	CC0822	RESIDU	0.	-1.792	0.	1.901	0.34	-1544.	-341.	-187.	-384.	1568.	-115.	0.20	322.	297.	18.	-7.
28192	DEHTPM	RESIDU	0.	-0.308	0.	0.218	0.09	-483.	252.	-32.	-330.	474.	-88.	0.02	43.	0.	20.	-20.
28192	DEHTPM	RESIDU	0.	-1.817	0.	1.288	0.26	-2852.	-351.	-189.	-1881.	1236.	-153.	-0.17	68.	242.	38.	-47.
28192	GTSOAD	DISTIL	-2.146	1.877	-2.146	2.403	0.11	503.	778.	94.	656.	1001.	39.	0.72	84.	0.	2.	-31.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28192	GTSOAD	DISTIL	-3.520	1.877	-3.520	5.089	0.31	-47.	554.	94.	960.	2205.	143.	0.68	287.	252.	22.	-40.
28192	GTRA08	DISTIL	0.	-0.321	0.	0.204	0.09	71.	507.	56.	240.	795.	88.	0.47	75.	0.	11.	-34.
28192	GTRA08	DISTIL	0.	-4.020	0.	2.559	0.30	-1702.	-534.	-6.	415.	3064.	383.	0.48	468.	568.	31.	-90.
28192	GTRA12	DISTIL	0.	-0.309	0.	0.217	0.09	74.	511.	57.	243.	798.	88.	0.48	77.	0.	8.	-33.
28192	GTRA12	DISTIL	0.	-3.592	0.	2.527	0.32	-1531.	-413.	1.	438.	2933.	363.	0.49	441.	525.	30.	-79.
28192	GTRA16	DISTIL	0.	-0.303	0.	0.223	0.09	74.	513.	57.	243.	800.	88.	0.48	76.	0.	8.	-33.
28192	GTRA16	DISTIL	0.	-3.174	0.	2.335	0.32	-1364.	-296.	8.	409.	2717.	334.	0.50	394.	467.	29.	-72.
28192	GTR208	DISTIL	0.	-0.298	0.	0.228	0.09	67.	514.	57.	236.	801.	88.	0.48	80.	0.	6.	-33.
28192	GTR208	DISTIL	0.	-2.454	0.	1.877	0.30	-1075.	-93.	20.	318.	2276.	277.	0.49	340.	357.	27.	-58.
28192	GTR212	DISTIL	0.	-0.298	0.	0.228	0.09	70.	514.	57.	239.	801.	88.	0.48	79.	0.	7.	-33.
28192	GTR212	DISTIL	0.	-2.636	0.	2.018	0.31	-1148.	-144.	17.	349.	2401.	293.	0.49	359.	387.	28.	-61.
28192	GTR216	DISTIL	0.	-0.294	0.	0.232	0.10	73.	515.	57.	242.	803.	88.	0.48	77.	0.	7.	-33.
28192	GTR216	DISTIL	0.	-2.683	0.	2.119	0.32	-1167.	-157.	16.	378.	2469.	301.	0.50	357.	401.	28.	-61.
28192	GTRW08	DISTIL	0.	-0.350	0.	0.176	0.07	63.	499.	56.	232.	787.	87.	0.47	75.	0.	13.	-35.
28192	GTRW08	DISTIL	0.	-5.082	0.	2.551	0.27	-2127.	-833.	-24.	329.	3342.	427.	0.46	572.	667.	32.	-113.
28192	GTRW12	DISTIL	0.	-0.329	0.	0.196	0.08	71.	505.	56.	240.	793.	87.	0.47	75.	0.	11.	-35.
28192	GTRW12	DISTIL	0.	-4.654	0.	2.775	0.30	-1955.	-712.	-17.	435.	3351.	423.	0.48	567.	647.	30.	-97.
28192	GTRW16	DISTIL	0.	-0.322	0.	0.204	0.08	71.	507.	56.	240.	795.	88.	0.47	75.	0.	11.	-34.
28192	GTRW16	DISTIL	0.	-4.051	0.	2.562	0.30	-1714.	-543.	-7.	413.	3074.	385.	0.48	500.	571.	30.	-87.
28192	GTR308	DISTIL	0.	-0.366	0.	0.160	0.07	49.	495.	56.	218.	782.	87.	0.46	80.	0.	12.	-36.
28192	GTR308	DISTIL	0.	-3.893	0.	1.697	0.23	-1651.	-498.	-4.	147.	2559.	327.	0.43	445.	475.	33.	-96.
28192	GTR312	DISTIL	0.	-0.310	0.	0.216	0.09	70.	511.	57.	239.	798.	88.	0.48	80.	0.	7.	-33.
28192	GTR312	DISTIL	0.	-3.194	0.	2.226	0.31	-1372.	-301.	8.	372.	2663.	328.	0.49	437.	459.	28.	-68.
28192	GTR316	DISTIL	0.	-0.311	0.	0.215	0.09	69.	510.	57.	239.	798.	88.	0.48	79.	0.	8.	-33.
28192	GTR316	DISTIL	0.	-3.146	0.	2.175	0.30	-1352.	-288.	8.	360.	2622.	323.	0.49	423.	450.	28.	-69.
28192	FCPADS	DISTIL	0.	-0.354	0.	0.171	0.07	159.	623.	63.	328.	910.	95.	0.56	56.	0.	33.	-43.
28192	FCPADS	DISTIL	0.	-7.508	0.	3.537	0.28	-1173.	1126.	94.	2412.	7221.	754.	0.85	479.	996.	52.	-315.
28192	FCMCDS	DISTIL	0.	-0.296	0.	0.229	0.10	-57.	629.	58.	112.	916.	89.	0.47	54.	0.	28.	-41.
28192	FCMCDS	DISTIL	0.	-4.970	0.	3.846	0.36	-4513.	1116.	-9.	-1677.	5938.	513.	0.47	345.	778.	47.	-211.
28212	STM141	RESIDU	0.	-0.013	0.	0.022	0.09	-5.	35.	-1.	5.	48.	-7.	0.20	10.	0.	-34.	-1.
28212	STM141	RESIDU	0.	-0.035	0.	0.059	0.20	-12.	26.	-2.	16.	70.	-6.	0.28	15.	5.	-6.	-1.
28212	STM141	COAL-F	0.	-0.013	0.	0.022	0.09	-5.	-8.	-1.	7.	11.	1.	0.08	-2.	0.	59.	-0.
28212	STM141	COAL-F	0.	-0.035	0.	0.059	0.20	-12.	-21.	-2.	18.	30.	4.	0.18	4.	5.	20.	1.
28212	STM141	COAL-A	0.	-0.013	0.	0.022	0.09	42.	-8.	-1.	53.	11.	1.	0.28	-0.	0.	44.	0.
28212	STM141	COAL-A	0.	-0.035	0.	0.059	0.20	39.	-21.	-2.	69.	30.	4.	0.36	10.	5.	6.	2.
28212	STM088	RESIDU	0.	-0.013	0.	0.022	0.09	-5.	35.	-1.	5.	48.	-7.	0.20	10.	0.	-36.	-1.
28212	STM088	RESIDU	0.	-0.024	0.	0.040	0.15	-9.	31.	-1.	11.	59.	-6.	0.24	13.	3.	-19.	-1.
28212	STM088	COAL-F	0.	-0.013	0.	0.022	0.09	-5.	-8.	-1.	7.	11.	1.	0.08	-2.	0.	57.	-0.
28212	STM088	COAL-F	0.	-0.024	0.	0.040	0.15	-9.	-15.	-1.	12.	21.	3.	0.14	3.	3.	19.	1.
28212	STM088	COAL-A	0.	-0.013	0.	0.022	0.09	42.	-8.	-1.	53.	11.	1.	0.28	0.	0.	39.	0.
28212	STM088	COAL-A	0.	-0.024	0.	0.040	0.15	40.	-15.	-1.	61.	21.	3.	0.32	8.	3.	2.	2.
28212	PFBSTM	COAL-P	0.	-0.014	0.	0.021	0.09	45.	-8.	1.	56.	11.	3.	0.30	-3.	0.	62.	-0.
28212	PFBSTM	COAL-P	0.	-0.064	0.	0.098	0.27	51.	-38.	6.	103.	50.	16.	0.48	6.	12.	25.	1.
28212	TISTMT	RESIDU	0.	-0.014	0.	0.022	0.09	-5.	35.	-1.	5.	48.	-7.	0.19	-0.	0.	36.	-3.
28212	TISTMT	RESIDU	0.	-0.085	0.	0.135	0.32	-30.	6	-4.	39.	118.	-3.	0.38	-22.	17.	60.	-6.
28212	TISTMT	AL	0.	-0.014	0.	0.022	0.09	-5.	-8.	-1.	7.	11.	1.	0.08	-13.	0.	132.	-2.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

TIME 1990 LEVEL ALL

FUEL UNITS =

EMISSION UNITS=

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28212	TISTMT	COAL	0.	-0.085	0.	0.135	0.32	-30.	-51.	-4.	41.	69.	9.	0.29	-33.	17.	74.	-4.
28212	TIHRSG	RESIDU	0.	-0.021	0.	0.014	0.06	-7.	32.	-1.	2.	45.	-8.	0.17	-6.	0.	83.	-4.
28212	TIHRSG	RESIDU	0.	-0.073	0.	0.048	0.15	-25.	11.	-4.	11.	69.	-7.	0.23	-26.	8.	95.	-7.
28212	TIHRSG	COAL	0.	-0.021	0.	0.014	0.06	-7.	-13.	-1.	4.	7.	1.	0.05	-20.	0.	185.	-3.
28212	TIHRSG	COAL	0.	-0.073	0.	0.048	0.15	-25.	-44.	-4.	13.	23.	4.	0.13	-41.	8.	121.	-5.
28212	STIRL	DISTIL	0.	-0.020	0.	0.015	0.06	20.	59.	6.	31.	78.	8.	0.50	9.	0.	-20.	-3.
28212	STIRL	DISTIL	0.	-0.148	0.	0.112	0.24	-10.	23.	4.	74.	165.	20.	0.58	17.	21.	30.	-6.
28212	STIRL	RESIDU	0.	-0.020	0.	0.015	0.06	-7.	32.	-2.	3.	45.	-9.	0.16	9.	0.	-25.	-2.
28212	STIRL	RESIDU	0.	-0.148	0.	0.112	0.24	-52.	-19.	-17.	29.	113.	-15.	0.29	17.	21.	25.	-3.
28212	STIRL	COAL	0.	-0.020	0.	0.015	0.06	-7.	-12.	-1.	4.	7.	1.	0.05	-2.	0.	59.	-0.
28212	STIRL	COAL	0.	-0.148	0.	0.112	0.24	-52.	-89.	-7.	32.	54.	8.	0.21	-1.	21.	36.	-0.
28212	HEGT60	COAL-A	0.	-0.032	0.	0.004	0.02	37.	-19.	-2.	49.	0.	1.	0.21	-8.	0.	104.	-1.
28212	HEGT60	COAL-A	0.	-0.537	0.	0.061	0.08	-63.	-322.	-27.	129.	5.	9.	0.19	-28.	53.	54.	-9.
28212	HEGT00	COAL-A	0.	-0.028	0.	0.007	0.03	37.	-17.	-1.	48.	2.	1.	0.22	-7.	0.	97.	-1.
28212	HEGT00	COAL-A	0.	-0.159	0.	0.040	0.10	5.	-95.	-8.	89.	13.	4.	0.22	-13.	15.	56.	-3.
28212	FCMCCL	COAL	0.	-0.017	0.	0.019	0.08	7.	12.	1.	19.	32.	3.	0.23	-8.	0.	96.	-1.
28212	FCMCCL	COAL	0.	-0.162	0.	0.184	0.34	71.	121.	9.	182.	310.	30.	1.00	-7.	29.	40.	-2.
28212	FCSTCL	COAL	0.	-0.016	0.	0.020	0.08	5.	9.	1.	16.	28.	3.	0.20	-7.	0.	93.	-1.
28212	FCSTCL	COAL	0.	-0.222	0.	0.274	0.39	71.	121.	9.	230.	393.	38.	1.00	-3.	43.	36.	-1.
28212	IGGTST	COAL	0.	-0.020	0.	0.015	0.06	-7.	-12.	1.	4.	7.	3.	0.06	-7.	0.	94.	-1.
28212	IGGTST	COAL	0.	-0.193	0.	0.147	0.27	-68.	-116.	8.	42.	70.	28.	0.27	-4.	29.	37.	-1.
28212	GTSOAR	RESIDU	-0.223	0.202	-0.223	0.238	0.06	41.	37.	8.	52.	57.	10.	0.51	9.	0.	-28.	-2.
28212	GTSOAR	RESIDU	-0.423	0.202	-0.423	0.585	0.28	-35.	-38.	7.	88.	172.	29.	0.52	31.	33.	22.	-3.
28212	GTAC08	RESIDU	0.	-0.016	0.	0.019	0.08	-16.	34.	-2.	-7.	47.	-9.	0.13	10.	0.	-36.	-1.
28212	GTAC08	RESIDU	0.	-0.131	0.	0.150	0.31	-129.	-12.	-15.	-41.	132.	-12.	0.17	26.	23.	14.	-1.
28212	GTAC12	RESIDU	0.	-0.017	0.	0.018	0.08	-15.	34.	-2.	-5.	46.	-8.	0.14	10.	0.	-36.	-1.
28212	GTAC12	RESIDU	0.	-0.169	0.	0.185	0.33	-152.	-27.	-18.	-41.	155.	-12.	0.19	30.	30.	17.	-1.
28212	GTAC16	RESIDU	0.	-0.017	0.	0.018	0.08	-15.	33.	-2.	-5.	46.	-8.	0.14	10.	0.	-34.	-1.
28212	GTAC16	RESIDU	0.	-0.201	0.	0.206	0.34	-171.	-40.	-21.	-43.	170.	-13.	0.20	32.	35.	19.	-1.
28212	GTWC16	RESIDU	0.	-0.019	0.	0.017	0.07	-16.	33.	-2.	-6.	46.	-9.	0.13	9.	0.	-31.	-1.
28212	GTWC16	RESIDU	0.	-0.222	0.	0.196	0.32	-184.	-48.	-22.	-53.	167.	-15.	0.17	34.	36.	20.	-2.
28212	CC1626	RESIDU	0.	-0.019	0.	0.016	0.07	-14.	33.	-2.	-5.	45.	-9.	0.14	10.	0.	-30.	-2.
28212	CC1626	RESIDU	0.	-0.340	0.	0.286	0.35	-255.	-96.	-31.	-57.	232.	-16.	0.20	47.	56.	23.	-3.
28212	CC1622	RESIDU	0.	-0.018	0.	0.017	0.07	-14.	33.	-2.	-4.	46.	-8.	0.14	10.	0.	-32.	-1.
28212	CC1622	RESIDU	0.	-0.293	0.	0.272	0.35	-226.	-77.	-28.	-48.	217.	-14.	0.21	42.	50.	22.	-2.
28212	CC1222	RESIDU	0.	-0.018	0.	0.017	0.07	-14.	33.	-2.	-4.	46.	-8.	0.14	10.	0.	-33.	-1.
28212	CC1222	RESIDU	0.	-0.288	0.	0.273	0.36	-223.	-75.	-27.	-47.	217.	-14.	0.22	43.	49.	21.	-2.
28212	CC0822	RESIDU	0.	-0.017	0.	0.018	0.08	-14.	34.	-2.	-4.	46.	-8.	0.14	10.	0.	-33.	-1.
28212	CC0822	RESIDU	0.	-0.212	0.	0.231	0.36	-178.	-44.	-22.	-38.	186.	-12.	0.22	36.	38.	19.	-1.
28212	STIG15	RESIDU	0.	-0.029	0.	0.006	0.03	-18.	29.	-1.	-8.	41.	-8.	0.11	10.	0.	-21.	-2.
28212	STIG15	RESIDU	0.	-13.014	0.	2.721	0.17	-7859.	-5165.	-386.	-2896.	3044.	17.	0.01	996.	1472.	37.	-206.
28212	STIG10	RESIDU	0.	-0.027	0.	0.009	0.04	-17.	30.	-1.	-8.	42.	-8.	0.11	10.	0.	-26.	-2.
28212	STIG10	RESIDU	0.	-1.095	0.	0.361	0.22	-707.	-397.	-29.	-249.	360.	5.	0.07	99.	133.	32.	-16.
28212	STIG1S	RESIDU	0.	-0.025	0.	0.010	0.04	-17.	30.	-1.	-8.	43.	-8.	0.12	10.	0.	-27.	-2.
28212	STIG1S	RESIDU	0.	-0.613	0.	0.241	0.23	-418.	-205.	-14.	-150.	238.	4.	0.09	64.	77.	29.	-9.
28212	DEADV3	RESIDU	0.	-0.024	0.	0.011	0.05	-27.	31.	-2.	-17.	43.	-9.	0.07	7.	0.	-8.	-2.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****DIRECT**** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28212	DEADV3	RESIDU	0.	-0.746	0.	0.353	0.27	-830.	-258.	-62.	-483.	315.	-35.	-0.17	33.	100.	39.	-14.
28212	DEHTPM	RESIDU	0.	-0.019	0.	0.017	0.07	-29.	33.	-2.	-19.	46.	-9.	0.08	7.	0.	-10.	-2.
28212	DEHTPM	RESIDU	0.	-0.199	0.	0.182	0.31	-311.	-29.	-21.	-191.	157.	-14.	-0.09	14.	32.	31.	-4.
28212	DESOA3	DISTIL	-0.228	0.202	-0.228	0.238	0.04	6.	84.	10.	16.	97.	3.	0.49	8.	0.	-7.	-4.
28212	DESOA3	DISTIL	-1.166	0.202	-1.166	1.518	0.23	-2145.	-68.	10.	-1731.	616.	41.	-0.75	14.	120.	81.	-32.
28212	DESOA3	RESIDU	-0.228	0.202	-0.228	0.238	0.04	-78.	35.	8.	-67.	55.	10.	-0.01	8.	0.	-13.	-2.
28212	DESOA3	RESIDU	-1.166	0.202	-1.166	1.518	0.23	-4653.	-318.	1.	-4230.	402.	79.	-2.63	14.	120.	45.	-23.
28212	GTSOAD	DISTIL	-0.220	0.202	-0.220	0.238	0.07	58.	86.	10.	68.	98.	3.	0.72	10.	0.	-32.	-3.
28212	GTSOAD	DISTIL	-0.377	0.202	-0.377	0.546	0.31	-5.	60.	10.	103.	237.	15.	0.68	31.	29.	21.	-4.
28212	GTRA08	DISTIL	0.	-0.020	0.	0.015	0.06	14.	59.	6.	26.	78.	8.	0.48	9.	0.	-24.	-3.
28212	GTRA08	DISTIL	0.	-0.351	0.	0.266	0.32	-151.	-35.	1.	48.	303.	37.	0.50	42.	55.	29.	-8.
28212	GTRA12	DISTIL	0.	-0.020	0.	0.016	0.07	14.	59.	6.	26.	78.	8.	0.48	9.	0.	-25.	-3.
28212	GTRA12	DISTIL	0.	-0.327	0.	0.265	0.33	-141.	-28.	1.	50.	296.	36.	0.51	42.	52.	28.	-7.
28212	GTRA16	DISTIL	0.	-0.019	0.	0.016	0.07	14.	59.	6.	26.	78.	8.	0.48	9.	0.	-24.	-3.
28212	GTRA16	DISTIL	0.	-0.298	0.	0.247	0.33	-129.	-19.	2.	46.	279.	34.	0.51	37.	48.	28.	-7.
28212	GTR208	DISTIL	0.	-0.019	0.	0.016	0.07	14.	59.	6.	25.	78.	8.	0.48	9.	0.	-26.	-3.
28212	GTR208	DISTIL	0.	-0.241	0.	0.202	0.31	-106.	-3.	3.	36.	239.	29.	0.50	35.	38.	26.	-6.
28212	GTR212	DISTIL	0.	-0.019	0.	0.016	0.07	14.	59.	6.	25.	78.	8.	0.48	9.	0.	-26.	-3.
28212	GTR212	DISTIL	0.	-0.258	0.	0.217	0.32	-113.	-8.	2.	39.	251.	30.	0.50	36.	41.	26.	-6.
28212	GTR216	DISTIL	0.	-0.019	0.	0.016	0.07	14.	59.	6.	26.	78.	8.	0.48	9.	0.	-25.	-3.
28212	GTR216	DISTIL	0.	-0.261	0.	0.227	0.33	-115.	-9.	2.	42.	258.	31.	0.51	35.	42.	27.	-6.
28212	GTRW08	DISTIL	0.	-0.022	0.	0.013	0.05	14.	58.	6.	25.	77.	8.	0.47	9.	0.	-20.	-3.
28212	GTRW08	DISTIL	0.	-0.463	0.	0.267	0.29	-195.	-66.	-1.	39.	333.	42.	0.47	52.	65.	31.	-11.
28212	GTRW12	DISTIL	0.	-0.021	0.	0.014	0.06	14.	58.	6.	25.	78.	8.	0.47	9.	0.	-22.	-3.
28212	GTRW12	DISTIL	0.	-0.439	0.	0.290	0.31	-186.	-59.	-1.	49.	340.	42.	0.49	52.	65.	30.	-10.
28212	GTRW16	DISTIL	0.	-0.021	0.	0.014	0.06	14.	58.	6.	25.	78.	8.	0.48	9.	0.	-21.	-3.
28212	GTRW16	DISTIL	0.	-0.395	0.	0.271	0.31	-168.	-47.	-0.	46.	317.	39.	0.49	47.	59.	30.	-9.
28212	GTR308	DISTIL	0.	-0.024	0.	0.012	0.05	13.	58.	6.	24.	77.	8.	0.47	9.	0.	-21.	-3.
28212	GTR308	DISTIL	0.	-0.368	0.	0.184	0.24	-157.	-39.	0.	20.	263.	33.	0.44	42.	48.	32.	-9.
28212	GTR312	DISTIL	0.	-0.020	0.	0.015	0.06	14.	59.	6.	25.	78.	8.	0.48	9.	0.	-24.	-3.
28212	GTR312	DISTIL	0.	-0.328	0.	0.239	0.31	-141.	-28.	1.	41.	282.	35.	0.49	43.	50.	28.	-7.
28212	GTR316	DISTIL	0.	-0.021	0.	0.015	0.06	14.	59.	6.	25.	78.	8.	0.47	9.	0.	-23.	-3.
28212	GTR316	DISTIL	0.	-0.324	0.	0.233	0.31	-140.	-27.	1.	40.	278.	34.	0.49	41.	49.	28.	-8.
28212	FCPADS	DISTIL	0.	-0.024	0.	0.012	0.05	20.	66.	7.	31.	85.	9.	0.53	9.	0.	-8.	-4.
28212	FCPADS	DISTIL	0.	-0.809	0.	0.392	0.28	-126.	121.	10.	260.	778.	81.	0.85	45.	109.	53.	-35.
28212	FCMCDS	DISTIL	0.	-0.020	0.	0.015	0.07	5.	66.	6.	17.	86.	8.	0.47	9.	0.	-12.	-4.
28212	FCMCDS	DISTIL	0.	-0.535	0.	0.414	0.36	-486.	120.	-1.	-181.	639.	55.	0.47	34.	86.	48.	-23.
28213	STM141	RESIDU	0.	-0.002	0.	0.003	0.01	-1.	-1.	-0.	1.	2.	0.	0.01	-0.	0.	60.	-0.
28213	STM141	COAL-F	0.	-0.002	0.	0.003	0.01	-1.	-4.	-0.	1.	-1.	1.	0.00	-2.	0.	47.	-0.
28213	STM141	COAL-A	0.	-0.002	0.	0.003	0.01	3.	-4.	-0.	4.	-1.	1.	0.01	-1.	0.	46.	-0.
28213	STM088	RESIDU	0.	-0.001	0.	0.001	0.00	-0.	-0.	-0.	0.	1.	0.	0.00	-0.	0.	60.	-0.
28213	STM088	COAL-F	0.	-0.001	0.	0.001	0.00	-0.	-3.	-0.	1.	-2.	1.	-0.00	-2.	0.	47.	-0.
28213	STM088	COAL-A	0.	-0.001	0.	0.001	0.00	3.	-3.	-0.	4.	-2.	1.	0.01	-1.	0.	46.	-0.
28213	PFBSTM	COAL-P	0.	-0.004	0.	0.005	0.01	4.	-5.	0.	7.	0.	2.	0.02	-2.	0.	47	-0.
28213	TISTMT	RESIDU	0.	-0.005	0.	0.008	0.02	-2.	-7	-0.	2.	5.	0.	0.02	-6.	0.	63	-1.
28213	TISTM	OAL	0.	-0.005	0.	0.008	0.02	-2.	-6	-0.	3.	2.	1.	0.01	-8.	0.	50.	-1.

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28213	TIHRSG	RESIDU	0.	-0.006	0.	0.003	0.01	-2.	-2.	-0.	1.	3.	0.	0.01	-6.	0.	63.	-1.
28213	TIHRSG	COAL	0.	-0.006	0.	0.003	0.01	-2.	-6.	-0.	1.	-1.	1.	0.00	-8.	0.	50.	-1.
28213	STIRL	DISTIL	0.	-0.011	0.	0.008	0.02	-1.	-1.	0.	5.	9.	2.	0.04	1.	0.	67.	-0.
28213	STIRL	RESIDU	0.	-0.011	0.	0.008	0.02	-4.	-4.	-1.	2.	5.	-1.	0.02	1.	0.	59.	0.
28213	STIRL	COAL	0.	-0.011	0.	0.008	0.02	-4.	-9.	-1.	2.	1.	1.	0.01	-1.	0.	46.	0.
28213	HEGT60	COAL-A	0.	-0.048	0.	0.003	0.01	-6.	-32.	-2.	10.	-3.	1.	0.02	-12.	0.	52.	-1.
28213	HEGT00	COAL-A	0.	-0.012	0.	0.003	0.01	0.	-10.	-1.	5.	-2.	1.	0.01	-5.	0.	48.	-0.
28213	FCMCCL	COAL	0.	-0.012	0.	0.014	0.03	5.	6.	1.	13.	20.	3.	0.08	-5.	0.	48.	-0.
28213	FCSTCL	COAL	0.	-0.015	0.	0.018	0.04	5.	6.	1.	16.	24.	3.	0.10	-6.	0.	48.	-0.
28213	IGGTST	COAL	0.	-0.013	0.	0.009	0.02	-4.	-11.	1.	3.	2.	2.	0.02	-6.	0.	49.	-0.
28213	GTSGAR	RESIDU	-0.017	0.	-0.017	0.029	0.02	-6.	-6.	-0.	3.	9.	2.	0.03	1.	0.	59.	0.
28213	GTAC08	RESIDU	0.	-0.010	0.	0.011	0.02	-9.	-4.	-1.	-3.	7.	-0.	0.01	1.	0.	59.	0.
28213	GTAC12	RESIDU	0.	-0.012	0.	0.014	0.03	-11.	-5.	-1.	-3.	9.	-0.	0.01	1.	0.	58.	0.
28213	GTAC16	RESIDU	0.	-0.015	0.	0.015	0.03	-13.	-6.	-2.	-3.	10.	-0.	0.01	1.	0.	58.	0.
28213	GTWC16	RESIDU	0.	-0.016	0.	0.014	0.03	-14.	-7.	-2.	-4.	10.	-0.	0.01	1.	0.	58.	0.
28213	CC1626	RESIDU	0.	-0.023	0.	0.019	0.04	-17.	-9.	-2.	-4.	13.	-1.	0.02	1.	0.	58.	0.
28213	CC1622	RESIDU	0.	-0.020	0.	0.018	0.04	-15.	-8.	-2.	-4.	12.	-0.	0.02	1.	0.	58.	0.
28213	CC1222	RESIDU	0.	-0.019	0.	0.018	0.04	-15.	-8.	-2.	-4.	12.	-0.	0.02	1.	0.	58.	0.
28213	CC0822	RESIDU	0.	-0.014	0.	0.015	0.03	-12.	-6.	-1.	-3.	10.	-0.	0.01	1.	0.	59.	0.
28213	DEADV3	RESIDU	0.	-0.059	0.	0.027	0.06	-65.	-24.	-5.	-38.	22.	-2.	-0.04	1.	0.	57.	-0.
28213	DEHTPM	RESIDU	0.	-0.015	0.	0.012	0.03	-23.	-6.	-2.	-14.	8.	-1.	-0.01	-1.	0.	60.	-0.
28213	DESGA3	DISTIL	-0.078	0.	-0.078	0.105	0.06	-175.	-9.	0.	-142.	45.	3.	-0.22	0.	0.	65.	-1.
28213	DESGA3	RESIDU	-0.078	0.	-0.078	0.105	0.06	-374.	-29.	-1.	-340.	28.	6.	-0.70	0.	0.	58.	-0.
28213	GTSGAD	DISTIL	-0.013	0.	-0.013	0.025	0.03	-5.	-2.	0.	3.	11.	1.	0.04	1.	0.	66.	0.
28213	GTRA08	DISTIL	0.	-0.028	0.	0.020	0.04	-12.	-6.	0.	4.	20.	3.	0.06	1.	0.	65.	-0.
28213	GTRA12	DISTIL	0.	-0.025	0.	0.020	0.04	-11.	-5.	0.	4.	20.	3.	0.06	1.	0.	65.	-0.
28213	GTRA16	DISTIL	0.	-0.023	0.	0.018	0.04	-10.	-5.	0.	3.	18.	3.	0.06	1.	0.	66.	-0.
28213	GTR208	DISTIL	0.	-0.018	0.	0.015	0.03	-8.	-3.	0.	3.	15.	3.	0.05	1.	0.	66.	-0.
28213	GTR212	DISTIL	0.	-0.020	0.	0.016	0.03	-9.	-4.	0.	3.	16.	3.	0.05	1.	0.	66.	-0.
28213	GTR216	DISTIL	0.	-0.020	0.	0.017	0.03	-9.	-4.	0.	3.	17.	3.	0.05	1.	0.	66.	-0.
28213	GTRW08	DISTIL	0.	-0.036	0.	0.020	0.04	-15.	-8.	-0.	3.	23.	4.	0.07	1.	0.	65.	-0.
28213	GTRW12	DISTIL	0.	-0.034	0.	0.022	0.05	-14.	-8.	-0.	4.	23.	4.	0.07	1.	0.	65.	-0.
28213	GTRW16	DISTIL	0.	-0.030	0.	0.020	0.04	-13.	-7.	-0.	3.	21.	4.	0.06	1.	0.	65.	-0.
28213	GTR308	DISTIL	0.	-0.028	0.	0.014	0.03	-12.	-6.	0.	2.	17.	3.	0.05	1.	0.	66.	-0.
28213	GTR312	DISTIL	0.	-0.025	0.	0.018	0.04	-11.	-5.	0.	3.	18.	3.	0.06	1.	0.	66.	-0.
28213	GTR316	DISTIL	0.	-0.024	0.	0.017	0.04	-10.	-5.	0.	3.	18.	3.	0.05	1.	0.	66.	-0.
28213	FCPADS	DISTIL	0.	-0.059	0.	0.029	0.06	-9.	6.	1.	19.	55.	7.	0.18	3.	0.	66.	-1.
28213	FCMCDS	DISTIL	0.	-0.039	0.	0.030	0.06	-36.	6.	-0.	-13.	45.	5.	0.08	2.	0.	65.	-1.
28221	STM141	RESIDU	0.	-0.007	0.	0.011	0.12	-9.	4.	-0.	-4.	12.	-1.	0.09	3.	0.	42.	0.
28221	STM141	COAL-F	0.	-0.007	0.	0.011	0.12	-9.	-4.	-0.	-4.	6.	1.	0.03	-0.	0.	43.	0.
28221	STM141	COAL-A	0.	-0.007	0.	0.011	0.12	-1.	-4.	-0.	5.	6.	1.	0.14	1.	0.	39.	0.
28221	STM088	RESIDU	0.	-0.005	0.	0.008	0.09	-9.	5.	-0.	-5.	11.	-1.	0.06	3.	0.	44.	0.
28221	STM088	COAL-F	0.	-0.005	0.	0.008	0.09	-9.	-3.	-0.	-5.	4.	1.	0.00	-0.	0.	44.	0.
28221	STM088	COAL-A	0.	-0.005	0.	0.008	0.09	-1.	-3.	-0.	4.	4.	1.	0.10	1.	0.	41.	0.
28221	PFBSTM	COAL-P	0.	-0.011	0.	0.018	0.19	1.	-7.	1.	10.	9.	3.	0.27	-1.	0.	45.	0.
28221	TISTMT	RESIDU	0.	-0.015	0.	0.024	0.25	-12.	0.	-1.	-0.	20.	-0.	0.24	-8.	0.	77.	-1.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28221	TISTMT	COAL	0.	-0.015	0.	0.024	0.25	-12.	-9.	-1.	0.	12.	2.	0.17	-13.	0.	88.	-1.
28221	TIHRSG	RESIDU	0.	-0.010	0.	0.009	0.09	-10.	3.	-0.	-5.	12.	-1.	0.07	-8.	0.	83.	-1.
28221	TIHRSG	COAL	0.	-0.010	0.	0.009	0.09	-10.	-6.	-0.	-4.	4.	1.	0.01	-12.	0.	89.	-1.
28221	STIRL	DISTIL	0.	-0.026	0.	0.021	0.22	-9.	3.	1.	6.	29.	3.	0.46	4.	0.	34.	-0.
28221	STIRL	RESIDU	0.	-0.026	0.	0.021	0.22	-16.	-4.	-3.	-1.	20.	-2.	0.20	4.	0.	29.	0.
28221	STIRL	COAL	0.	-0.026	0.	0.021	0.22	-16.	-16.	-1.	-1.	10.	1.	0.13	1.	0.	34.	1.
28221	HEGT85	COAL-A	0.	-0.051	0.	0.012	0.13	-10.	-31.	-3.	10.	4.	1.	0.18	-14.	0.	99.	-2.
28221	HEGT85	COAL-A	0.	-0.141	0.	0.033	0.16	-27.	-84.	-7.	29.	11.	3.	0.23	-22.	10.	73.	-4.
28221	HEGT60	COAL-A	0.	-0.049	0.	0.014	0.15	-10.	-29.	-2.	10.	5.	1.	0.20	-12.	0.	88.	-1.
28221	HEGT60	COAL-A	0.	-0.055	0.	0.016	0.15	-11.	-33.	-3.	11.	6.	1.	0.20	-12.	1.	81.	-1.
28221	HEGT00	COAL-A	0.	-0.023	0.	0.007	0.08	-6.	-14.	-1.	4.	3.	1.	0.09	-6.	0.	64.	-0.
28221	FCMCCL	COAL	0.	-0.026	0.	0.030	0.31	4.	19.	1.	22.	50.	5.	0.91	-6.	0.	60.	-0.
28221	FCSTCL	COAL	0.	-0.028	0.	0.035	0.37	1.	15.	1.	22.	49.	5.	0.90	-7.	0.	66.	-0.
28221	FCSTCL	COAL	0.	-0.038	0.	0.047	0.40	4.	19.	1.	32.	66.	6.	1.00	-6.	2.	54.	-0.
28221	IGGTST	COAL	0.	-0.033	0.	0.026	0.27	-19.	-20.	1.	0.	12.	5.	0.21	-6.	0.	62.	-0.
28221	GTSOAR	RESIDU	-0.064	0.033	-0.064	0.091	0.28	-12.	-5.	1.	7.	27.	5.	0.46	4.	0.	25.	0.
28221	GTAC08	RESIDU	0.	-0.021	0.	0.024	0.25	-28.	-2.	-2.	-14.	21.	-2.	0.07	4.	0.	26.	1.
28221	GTAC12	RESIDU	0.	-0.027	0.	0.030	0.31	-31.	-4.	-3.	-13.	25.	-2.	0.11	5.	0.	20.	1.
28221	GTAC16	RESIDU	0.	-0.030	0.	0.033	0.34	-33.	-6.	-3.	-13.	27.	-2.	0.14	5.	0.	19.	1.
28221	GTAC16	RESIDU	0.	-0.031	0.	0.033	0.34	-34.	-6.	-3.	-14.	27.	-2.	0.14	5.	0.	18.	1.
28221	GTWC16	RESIDU	0.	-0.034	0.	0.030	0.31	-35.	-7.	-3.	-15.	26.	-2.	0.10	5.	0.	23.	0.
28221	GTWC16	RESIDU	0.	-0.036	0.	0.031	0.32	-37.	-8.	-4.	-15.	27.	-2.	0.10	5.	0.	22.	1.
28221	CC1626	RESIDU	0.	-0.034	0.	0.029	0.31	-32.	-7.	-3.	-12.	25.	-2.	0.13	4.	0.	28.	0.
28221	CC1626	RESIDU	0.	-0.057	0.	0.049	0.35	-49.	-16.	-5.	-16.	39.	-3.	0.17	7.	4.	26.	0.
28221	CC1622	RESIDU	0.	-0.033	0.	0.031	0.32	-32.	-7.	-3.	-12.	26.	-2.	0.14	4.	0.	26.	0.
28221	CC1622	RESIDU	0.	-0.049	0.	0.046	0.36	-45.	-13.	-5.	-15.	37.	-2.	0.17	6.	3.	25.	0.
28221	CC1222	RESIDU	0.	-0.032	0.	0.031	0.32	-32.	-6.	-3.	-12.	26.	-2.	0.15	4.	0.	25.	0.
28221	CC1222	RESIDU	0.	-0.049	0.	0.047	0.37	-44.	-13.	-5.	-14.	37.	-2.	0.18	7.	3.	24.	0.
28221	CC0822	RESIDU	0.	-0.030	0.	0.033	0.35	-32.	-6.	-3.	-12.	27.	-2.	0.16	4.	0.	23.	0.
28221	CC0822	RESIDU	0.	-0.036	0.	0.040	0.37	-37.	-8.	-4.	-13.	32.	-2.	0.17	6.	1.	21.	1.
28221	STIG15	RESIDU	0.	-0.052	0.	0.011	0.11	-39.	-14.	-2.	-19.	18.	-1.	-0.03	4.	0.	40.	-1.
28221	STIG15	RESIDU	0.	-2.094	0.	0.438	0.17	-1272.	-831.	-62.	-473.	490.	3.	0.01	155.	232.	38.	-35.
28221	STIG10	RESIDU	0.	-0.048	0.	0.016	0.16	-38.	-13.	-1.	-18.	20.	-1.	0.01	4.	0.	35.	-0.
28221	STIG10	RESIDU	0.	-0.176	0.	0.058	0.22	-121.	-64.	-5.	-47.	58.	1.	0.05	15.	16.	35.	-2.
28221	STIG1S	RESIDU	0.	-0.045	0.	0.018	0.19	-38.	-12.	-1.	-18.	21.	-0.	0.02	4.	0.	33.	-0.
28221	STIG1S	RESIDU	0.	-0.099	0.	0.039	0.23	-74.	-33.	-2.	-31.	38.	1.	0.05	9.	7.	32.	-1.
28221	DEADV3	RESIDU	0.	-0.041	0.	0.023	0.24	-54.	-10.	-3.	-34.	23.	-3.	-0.17	2.	0.	39.	-0.
28221	DEADV3	RESIDU	0.	-0.095	0.	0.053	0.29	-117.	-31.	-8.	-70.	46.	-4.	-0.18	6.	8.	36.	-1.
28221	DEHTPM	RESIDU	0.	-0.030	0.	0.034	0.35	-53.	-5.	-3.	-33.	27.	-2.	-0.09	2.	0.	31.	0.
28221	DEHTPM	RESIDU	0.	-0.032	0.	0.036	0.36	-57.	-6.	-3.	-35.	29.	-2.	-0.09	3.	0.	29.	0.
28221	DESOA3	DISTIL	-0.076	0.033	-0.076	0.096	0.20	-103.	7.	2.	-83.	39.	2.	-0.49	2.	0.	46.	-1.
28221	DESOA3	DISTIL	-0.151	0.033	-0.151	0.203	0.26	-283.	-5.	2.	-229.	84.	6.	-0.76	3.	10.	49.	-3.
28221	DESOA3	RESIDU	-0.076	0.033	-0.076	0.096	0.20	-225.	-9.	1.	-204.	25.	5.	-2.07	2.	0.	41.	-0.
28221	DESOA3	RESIDU	-0.151	0.033	-0.151	0.203	0.26	-608.	-37	0.	-553.	56.	11.	-2.65	3.	10.	44	-2.
28221	GTSOAD	DISTIL	-0.060	0.033	-0.060	0.087	0.29	-8.	1	2.	10.	38.	2.	0.59	5.	0.	25	0.
28221	GTRAO	DISTIL	0.	-0.033	0.	0.030	0.31	-20.	1.	1.	-0.	35.	4.	0.47	4.	0.	31.	-0.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28221	GTRA08	DISTIL	0.	-0.047	0.	0.042	0.34	-27.	-3.	0.	1.	46.	6.	0.48	6.	2.	29.	-0.
28221	GTRA12	DISTIL	0.	-0.033	0.	0.030	0.32	-20.	1.	1.	0.	36.	4.	0.48	4.	0.	30.	-0.
28221	GTRA12	DISTIL	0.	-0.045	0.	0.042	0.35	-27.	-2.	0.	1.	45.	5.	0.49	5.	2.	29.	-0.
28221	GTRA16	DISTIL	0.	-0.033	0.	0.031	0.32	-20.	1.	1.	-0.	36.	4.	0.47	4.	0.	31.	-0.
28221	GTRA16	DISTIL	0.	-0.042	0.	0.039	0.35	-25.	-1.	0.	1.	43.	5.	0.48	5.	2.	29.	-0.
28221	GTR208	DISTIL	0.	-0.033	0.	0.030	0.32	-21.	1.	1.	-1.	36.	4.	0.46	5.	0.	27.	-0.
28221	GTR208	DISTIL	0.	-0.035	0.	0.033	0.32	-23.	0.	0.	-1.	37.	4.	0.46	5.	0.	25.	-0.
28221	GTR212	DISTIL	0.	-0.033	0.	0.030	0.32	-21.	1.	1.	-1.	36.	4.	0.47	4.	0.	29.	-0.
28221	GTR212	DISTIL	0.	-0.038	0.	0.035	0.33	-24.	-0.	0.	-0.	39.	5.	0.47	5.	1.	27.	-0.
28221	GTR216	DISTIL	0.	-0.032	0.	0.031	0.32	-21.	1.	1.	-0.	36.	4.	0.47	4.	0.	29.	-0.
28221	GTR216	DISTIL	0.	-0.038	0.	0.036	0.34	-24.	-0.	0.	0.	40.	5.	0.48	5.	1.	27.	-0.
28221	GTRW08	DISTIL	0.	-0.038	0.	0.025	0.26	-22.	-0.	0.	-1.	34.	4.	0.44	4.	0.	35.	-0.
28221	GTRW08	DISTIL	0.	-0.064	0.	0.042	0.30	-34.	-8.	-0.	-0.	50.	6.	0.45	6.	4.	34.	-1.
28221	GTRW12	DISTIL	0.	-0.037	0.	0.027	0.28	-21.	0.	0.	-1.	35.	4.	0.45	4.	0.	34.	-0.
28221	GTRW12	DISTIL	0.	-0.063	0.	0.046	0.32	-34.	-7.	0.	1.	52.	6.	0.47	6.	4.	33.	-1.
28221	GTRW16	DISTIL	0.	-0.036	0.	0.027	0.28	-21.	0.	0.	-1.	35.	4.	0.45	3.	0.	35.	-0.
28221	GTRW16	DISTIL	0.	-0.058	0.	0.043	0.32	-32.	-6.	0.	1.	49.	6.	0.47	6.	4.	33.	-1.
28221	GTR308	DISTIL	0.	-0.040	0.	0.023	0.24	-23.	-1.	0.	-3.	34.	4.	0.41	4.	0.	34.	-0.
28221	GTR308	DISTIL	0.	-0.051	0.	0.030	0.26	-29.	-4.	0.	-3.	40.	5.	0.42	6.	2.	32.	-1.
28221	GTR312	DISTIL	0.	-0.036	0.	0.027	0.29	-21.	0.	0.	-1.	35.	4.	0.45	4.	0.	32.	-0.
28221	GTR312	DISTIL	0.	-0.050	0.	0.038	0.32	-29.	-4.	0.	-0.	45.	5.	0.46	6.	2.	30.	-0.
28221	GTR316	DISTIL	0.	-0.036	0.	0.027	0.28	-22.	0.	0.	-1.	35.	4.	0.45	4.	0.	33.	-0.
28221	GTR316	DISTIL	0.	-0.049	0.	0.037	0.31	-28.	-4.	0.	-0.	44.	5.	0.46	5.	2.	31.	-0.
28221	FCPADS	DISTIL	0.	-0.043	0.	0.021	0.22	-11.	13.	1.	9.	48.	5.	0.74	4.	0.	48.	-1.
28221	FCPADS	DISTIL	0.	-0.130	0.	0.063	0.28	-27.	20.	2.	35.	125.	13.	0.85	8.	12.	52.	-5.
28221	FCMCDS	DISTIL	0.	-0.036	0.	0.028	0.29	-37.	14.	1.	-17.	49.	4.	0.43	3.	0.	43.	-1.
28221	FCMCDS	DISTIL	0.	-0.086	0.	0.067	0.36	-85.	19.	-0.	-36.	103.	9.	0.45	6.	8.	46.	-3.
28241	STM141	RESIDU	0.	-0.004	0.	0.007	0.02	-1.	-2.	-0.	2.	4.	0.	0.02	-0.	0.	59.	0.
28241	STM141	COAL-F	0.	-0.004	0.	0.007	0.02	-1.	-8.	-0.	2.	-1.	2.	0.01	-2.	0.	48.	0.
28241	STM141	COAL-A	0.	-0.004	0.	0.007	0.02	5.	-8.	-0.	9.	-1.	2.	0.03	-2.	0.	47.	0.
28241	STM088	RESIDU	0.	-0.003	0.	0.004	0.01	-1.	-1.	-0.	1.	3.	0.	0.01	0.	0.	60.	0.
28241	STM088	COAL-F	0.	-0.003	0.	0.004	0.01	-1.	-7.	-0.	2.	-3.	1.	0.00	-2.	0.	48.	0.
28241	STM088	COAL-A	0.	-0.003	0.	0.004	0.01	5.	-7.	-0.	8.	-3.	1.	0.03	-2.	0.	47.	0.
28241	PFBSTM	COAL-P	0.	-0.008	0.	0.012	0.04	7.	-10.	1.	14.	1.	3.	0.07	-3.	0.	48.	0.
28241	TISTMT	RESIDU	0.	-0.011	0.	0.017	0.06	-4.	-4.	-1.	5.	10.	1.	0.06	-9.	0.	67.	-1.
28241	TISTMT	COAL	0.	-0.011	0.	0.017	0.06	-4.	-12.	-1.	5.	4.	2.	0.04	-13.	0.	57.	-1.
28241	TIHRSG	RESIDU	0.	-0.010	0.	0.007	0.02	-3.	-4.	-0.	2.	5.	0.	0.02	-9.	0.	68.	-1.
28241	TIHRSG	COAL	0.	-0.010	0.	0.007	0.02	-3.	-11.	-0.	2.	-2.	2.	0.01	-13.	0.	57.	-1.
28241	STIRL	DISTIL	0.	-0.021	0.	0.016	0.05	-1.	-3.	1.	11.	18.	4.	0.12	2.	0.	64.	-0.
28241	STIRL	RESIDU	0.	-0.021	0.	0.016	0.05	-7.	-8.	-2.	4.	11.	-1.	0.05	2.	0.	56.	0.
28241	STIRL	COAL	0.	-0.021	0.	0.016	0.05	-7.	-18.	-1.	5.	3.	2.	0.04	-1.	0.	46.	1.
28241	HEGT60	COAL-A	0.	-0.067	0.	0.010	0.03	-7.	-46.	-3.	17.	-3.	2.	0.06	-15.	0.	59.	-1.
28241	HEGT00	COAL-A	0.	-0.022	0.	0.006	0.02	1.	-19.	-1.	10.	-3.	2.	0.03	-7.	0.	52.	-0.
28241	FCMCCL	COAL	0.	-0.022	0.	0.025	0.09	10.	11.	1.	25.	38.	5.	0.25	-7.	0.	51.	-0.
28241	FCSTCL	COAL	0.	-0.029	0.	0.036	0.12	10.	11.	1.	31.	47.	6.	0.31	-8.	0.	51.	-0.
28241	IGGTST	COAL	0.	-0.025	0.	0.019	0.06	-9.	-21.	1.	5.	4.	5.	0.05	-8.	0.	52.	-0.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28241	GTSOAR	RESIDU	-0.030	0.	-0.030	0.052	0.08	-11.	-11.	-0.	5.	17.	3.	0.10	2.	0.	55.	0.
28241	GTAC08	RESIDU	0.	-0.018	0.	0.021	0.07	-18.	-7.	-2.	-5.	13.	-1.	0.03	2.	0.	56.	0.
28241	GTAC12	RESIDU	0.	-0.023	0.	0.025	0.09	-21.	-9.	-3.	-5.	17.	-1.	0.04	2.	0.	54.	1.
28241	GTAC16	RESIDU	0.	-0.027	0.	0.028	0.10	-23.	-11.	-3.	-3.	19.	-1.	0.05	2.	0.	54.	1.
28241	GTWC16	RESIDU	0.	-0.031	0.	0.027	0.09	-25.	-12.	-3.	-7.	18.	-1.	0.04	2.	0.	54.	1.
28241	CC1626	RESIDU	0.	-0.045	0.	0.038	0.13	-34.	-18.	-4.	-8.	26.	-1.	0.06	3.	0.	52.	1.
28241	CC1622	RESIDU	0.	-0.039	0.	0.035	0.12	-30.	-15.	-4.	-7.	24.	-1.	0.06	3.	0.	53.	1.
28241	CC1222	RESIDU	0.	-0.038	0.	0.035	0.12	-30.	-15.	-4.	-6.	24.	-1.	0.06	3.	0.	52.	1.
28241	CC0822	RESIDU	0.	-0.028	0.	0.030	0.10	-24.	-11.	-3.	-5.	20.	-1.	0.05	2.	0.	54.	1.
28241	STIG15	RESIDU	0.	-0.223	0.	0.047	0.16	-135.	-89.	-7.	-50.	52.	0.	0.01	13.	0.	43.	-1.
28241	STIG15	RESIDU	0.	-1.795	0.	0.375	0.17	-1084.	-718.	-53.	-399.	415.	3.	0.01	131.	178.	39.	-27.
28241	STIG10	RESIDU	0.	-0.151	0.	0.050	0.17	-98.	-60.	-4.	-34.	45.	2.	0.05	10.	0.	44.	0.
28241	STIG15	RESIDU	0.	-0.083	0.	0.033	0.11	-58.	-34.	-2.	-20.	28.	2.	0.03	6.	0.	50.	0.
28241	DEADV3	RESIDU	0.	-0.098	0.	0.048	0.16	-110.	-39.	-8.	-64.	38.	-4.	-0.11	3.	0.	50.	0.
28241	DEHTPM	RESIDU	0.	-0.028	0.	0.026	0.09	-43.	-11.	-3.	-26.	18.	-1.	-0.03	-0.	0.	57.	0.
28241	DESOA3	DISTIL	-0.126	0.	-0.126	0.174	0.16	-289.	-15.	0.	-235.	76.	4.	-0.59	1.	0.	59.	-2.
28241	DESOA3	RESIDU	-0.126	0.	-0.126	0.174	0.16	-620.	-47.	-1.	-564.	47.	9.	-1.92	1.	0.	53.	-1.
28241	GTSOAD	DISTIL	-0.024	0.	-0.024	0.047	0.08	-10.	-4.	0.	5.	21.	2.	0.11	2.	0.	62.	0.
28241	GTRA08	DISTIL	0.	-0.047	0.	0.036	0.12	-20.	-10.	0.	7.	36.	6.	0.18	3.	0.	59.	0.
28241	GTRA12	DISTIL	0.	-0.044	0.	0.036	0.12	-19.	-9.	0.	7.	36.	6.	0.18	3.	0.	59.	0.
28241	GTRA16	DISTIL	0.	-0.040	0.	0.034	0.11	-17.	-8.	0.	7.	33.	6.	0.17	2.	0.	60.	-0.
28241	GTR208	DISTIL	0.	-0.033	0.	0.028	0.09	-14.	-6.	0.	5.	28.	5.	0.14	2.	0.	61.	0.
28241	GTR212	DISTIL	0.	-0.035	0.	0.030	0.10	-15.	-7.	0.	6.	30.	5.	0.15	2.	0.	61.	0.
28241	GTR216	DISTIL	0.	-0.035	0.	0.031	0.11	-16.	-7.	0.	6.	31.	5.	0.15	2.	0.	61.	0.
28241	GTRW08	DISTIL	0.	-0.062	0.	0.037	0.12	-26.	-14.	-0.	6.	41.	7.	0.19	4.	0.	58.	-0.
28241	GTRW12	DISTIL	0.	-0.059	0.	0.040	0.13	-25.	-13.	-0.	7.	42.	7.	0.20	4.	0.	58.	-0.
28241	GTRW16	DISTIL	0.	-0.053	0.	0.037	0.13	-23.	-12.	0.	7.	39.	6.	0.19	3.	0.	59.	-0.
28241	GTR308	DISTIL	0.	-0.049	0.	0.025	0.09	-21.	-11.	0.	3.	31.	6.	0.15	3.	0.	61.	-0.
28241	GTR312	DISTIL	0.	-0.045	0.	0.033	0.11	-19.	-9.	0.	6.	34.	6.	0.17	3.	0.	60.	-0.
28241	GTR316	DISTIL	0.	-0.044	0.	0.032	0.11	-19.	-9.	0.	6.	33.	6.	0.16	3.	0.	60.	-0.
28241	FCPADS	DISTIL	0.	-0.112	0.	0.054	0.18	-17.	11.	1.	36.	103.	12.	0.55	5.	0.	60.	-2.
28241	FCMCDS	DISTIL	0.	-0.074	0.	0.057	0.19	-67.	11.	-0.	-25.	83.	9.	0.25	4.	0.	60.	-1.
28242	STM141	RESIDU	0.	-0.007	0.	0.011	0.09	-2.	-3.	-0.	3.	7.	0.	0.09	0.	0.	54.	0.
28242	STM141	COAL-F	0.	-0.007	0.	0.011	0.09	-2.	-9.	-0.	3.	2.	2.	0.06	-2.	0.	48.	0.
28242	STM141	COAL-A	0.	-0.007	0.	0.011	0.09	4.	-9.	-0.	10.	2.	2.	0.11	-1.	0.	46.	0.
28242	STM088	RESIDU	0.	-0.005	0.	0.008	0.07	-2.	-2.	-0.	3.	5.	0.	0.07	0.	0.	55.	0.
28242	STM088	COAL-F	0.	-0.005	0.	0.008	0.07	-2.	-8.	-0.	3.	0.	1.	0.04	-2.	0.	48.	0.
28242	STM088	COAL-A	0.	-0.005	0.	0.008	0.07	4.	-8.	-0.	9.	0.	1.	0.09	-1.	0.	47.	0.
28242	PFBSTM	COAL-P	0.	-0.010	0.	0.016	0.13	6.	-11.	1.	14.	4.	3.	0.18	-3.	0.	49.	0.
28242	TISTMT	RESIDU	0.	-0.013	0.	0.020	0.16	-4.	-5.	-1.	6.	13.	1.	0.17	-8.	0.	71.	-1.
28242	TISTMT	COAL	0.	-0.013	0.	0.020	0.16	-4.	-12.	-1.	6.	6.	2.	0.13	-11.	0.	69.	-1.
28242	TIHRSG	RESIDU	0.	-0.006	0.	0.007	0.05	-2.	-2.	-0.	2.	5.	0.	0.06	-7.	0.	73.	-1.
28242	TIHRSG	COAL	0.	-0.006	0.	0.007	0.05	-2.	-8.	-0.	2.	-1.	1.	0.03	-10.	0.	68.	-1.
28242	STIRL	DISTIL	0.	-0.020	0.	0.017	0.14	-2.	-3.	0.	10.	18.	4.	0.28	2.	0.	54.	0.
28242	STIRL	RESIDU	0.	-0.020	0.	0.017	0.14	-7.	-7.	-2.	5.	12.	-1.	0.14	2.	0.	48.	0.
28242	STIRL	COAL	0.	-0.020	0.	0.017	0.14	-7.	-11.	-1.	5.	4.	2.	0.10	-1.	0.	43.	1.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT ***** OIL+GAS	COAL	TOTAL OIL+GAS	COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	SOX	PART	TOTAL NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28242	HEGT85	COAL-A	0.	-0.059	0.	0.024	0.19	-7.	-40.	-3.	20.	6.	3.	0.25	-15.	0.	75.	-1.
28242	HEGT60	COAL-A	0.	-0.032	0.	0.013	0.10	-2.	-24.	-2.	13.	2.	2.	0.14	-10.	0.	65.	-1.
28242	HEGT00	COAL-A	0.	-0.016	0.	0.006	0.05	1.	-14.	-1.	8.	-2.	1.	0.07	-6.	0.	57.	-0.
28242	FCMCCL	COAL	0.	-0.019	0.	0.022	0.17	8.	9.	1.	21.	32.	4.	0.50	-6.	0.	56.	-0.
28242	FCSTCL	COAL	0.	-0.030	0.	0.038	0.30	8.	9.	1.	30.	48.	6.	0.72	-7.	0.	55.	0.
28242	IGGTST	COAL	0.	-0.027	0.	0.022	0.17	-9.	-21.	1.	7.	7.	5.	0.15	-7.	0.	58.	-0.
28242	GTSOAR	RESIDU	-0.021	0.	-0.021	0.041	0.15	-9.	-8.	-0.	4.	14.	2.	0.20	1.	0.	48.	0.
28242	GTAC08	RESIDU	0.	-0.016	0.	0.018	0.14	-15.	-6.	-2.	-5.	11.	-0.	0.05	1.	0.	48.	0.
28242	GTAC12	RESIDU	0.	-0.019	0.	0.022	0.17	-17.	-8.	-2.	-4.	14.	-0.	0.08	2.	0.	46.	1.
28242	GTAC16	RESIDU	0.	-0.022	0.	0.024	0.19	-19.	-9.	-2.	-4.	16.	-0.	0.09	2.	0.	45.	1.
28242	GTWC16	RESIDU	0.	-0.026	0.	0.023	0.18	-22.	-10.	-3.	-6.	16.	-1.	0.08	2.	0.	46.	0.
28242	CC1626	RESIDU	0.	-0.045	0.	0.040	0.32	-33.	-18.	-4.	-6.	27.	-1.	0.17	3.	0.	37.	1.
28242	CC1622	RESIDU	0.	-0.039	0.	0.038	0.30	-29.	-16.	-4.	-5.	25.	-1.	0.17	3.	0.	38.	1.
28242	CC1222	RESIDU	0.	-0.039	0.	0.038	0.30	-29.	-15.	-4.	-5.	25.	-1.	0.17	3.	0.	38.	1.
28242	CC0822	RESIDU	0.	-0.029	0.	0.033	0.26	-23.	-12.	-3.	-4.	21.	-0.	0.15	2.	0.	42.	1.
28242	STIG15	RESIDU	0.	-0.085	0.	0.018	0.14	-51.	-34.	-3.	-19.	20.	0.	0.01	3.	0.	47.	-0.
28242	STIG15	RESIDU	0.	-1.526	0.	0.319	0.17	-922.	-610.	-45.	-339.	353.	3.	0.01	100.	163.	38.	-24.
28242	STIG10	RESIDU	0.	-0.077	0.	0.025	0.20	-50.	-31.	-2.	-17.	23.	1.	0.06	3.	0.	42.	-0.
28242	STIG10	RESIDU	0.	-0.128	0.	0.042	0.22	-83.	-51.	-3.	-29.	38.	2.	0.06	7.	6.	38.	-1.
28242	STIG1S	RESIDU	0.	-0.072	0.	0.028	0.22	-49.	-29.	-2.	-17.	24.	1.	0.07	4.	0.	38.	0.
28242	DEADV3	RESIDU	0.	-0.059	0.	0.037	0.29	-70.	-24.	-5.	-40.	27.	-2.	-0.13	1.	0.	42.	0.
28242	DEHTPM	RESIDU	0.	-0.022	0.	0.029	0.23	-36.	-9.	-2.	-19.	19.	-0.	-0.01	0.	0.	48.	0.
28242	DESOA3	DISTIL	-0.069	0.	-0.069	0.103	0.27	-170.	-6.	0.	-138.	47.	3.	-0.82	0.	0.	51.	-1.
28242	DESOA3	DISTIL	-0.072	0.	-0.072	0.108	0.27	-180.	-7.	0.	-146.	50.	3.	-0.83	1.	1.	50.	-1.
28242	DESOA3	RESIDU	-0.069	0.	-0.069	0.103	0.27	-366.	-26.	-1.	-333.	30.	6.	-2.78	0.	0.	45.	-0.
28242	DESOA3	RESIDU	-0.072	0.	-0.072	0.108	0.27	-386.	-27.	-1.	-351.	32.	6.	-2.79	1.	1.	44.	-0.
28242	GTSOAD	DISTIL	-0.019	0.	-0.019	0.039	0.16	-8.	-3.	0.	4.	18.	2.	0.23	2.	0.	53.	0.
28242	GTRA08	DISTIL	0.	-0.031	0.	0.030	0.24	-13.	-6.	0.	6.	28.	5.	0.34	2.	0.	49.	0.
28242	GTRA12	DISTIL	0.	-0.030	0.	0.030	0.24	-13.	-6.	0.	6.	28.	5.	0.34	2.	0.	49.	0.
28242	GTRA16	DISTIL	0.	-0.028	0.	0.028	0.22	-12.	-5.	0.	6.	27.	5.	0.32	1.	0.	50.	0.
28242	GTR208	DISTIL	0.	-0.024	0.	0.024	0.19	-11.	-4.	0.	5.	23.	4.	0.27	1.	0.	52.	0.
28242	GTR212	DISTIL	0.	-0.026	0.	0.025	0.20	-12.	-4.	0.	5.	24.	4.	0.29	1.	0.	51.	0.
28242	GTR216	DISTIL	0.	-0.026	0.	0.026	0.21	-12.	-4.	0.	5.	25.	4.	0.30	1.	0.	51.	0.
28242	GTRW08	DISTIL	0.	-0.043	0.	0.033	0.24	-18.	-9.	0.	5.	31.	5.	0.36	2.	0.	48.	-0.
28242	GTRW12	DISTIL	0.	-0.042	0.	0.033	0.26	-18.	-9.	0.	6.	33.	5.	0.38	2.	0.	46.	0.
28242	GTRW16	DISTIL	0.	-0.040	0.	0.031	0.25	-17.	-8.	0.	6.	31.	5.	0.36	2.	0.	48.	-0.
28242	GTR308	DISTIL	0.	-0.033	0.	0.022	0.17	-15.	-7.	0.	3.	24.	4.	0.28	2.	0.	52.	-0.
28242	GTR312	DISTIL	0.	-0.035	0.	0.028	0.22	-15.	-7.	0.	5.	28.	5.	0.33	2.	0.	49.	0.
28242	GTR316	DISTIL	0.	-0.035	0.	0.027	0.21	-15.	-7.	0.	5.	28.	5.	0.32	2.	0.	50.	-0.
28242	FCPADS	DISTIL	0.	-0.069	0.	0.034	0.27	-10.	8.	1.	23.	65.	8.	0.83	2.	0.	56.	-2.
28242	FCPADS	DISTIL	0.	-0.095	0.	0.046	0.28	-15.	9.	1.	31.	87.	10.	0.85	4.	4.	54.	-2.
28242	FCMCDS	DISTIL	0.	-0.058	0.	0.045	0.35	-52.	9.	-0.	-19.	66.	7.	0.46	2.	0.	51.	-1.
28242	FCMCDS	DISTIL	0.	-0.063	0.	0.049	0.36	-57.	9.	-0.	-21.	71.	7.	0.46	3.	1.	49.	-1.
28651	STM141	RESIDU	0.	-0.014	0.	0.023	0.07	-5.	52.	-1.	5.	63.	-11.	0.18	13.	0.	-57.	-2.
28651	STM141	RESIDU	0.	-0.115	0.	0.191	0.32	-40.	11.	-6.	55.	167.	-4.	0.38	96.	25.	6.	-0.
28651	STM141	COAL-F	0.	-0.014	0.	0.023	0.07	-5.	-8.	-1.	7.	12.	1.	0.06	-3.	0.	63.	-0.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28651	STM141	COAL-F	0.	-0.115	0.	0.191	0.32	-40.	-69.	-6.	58.	98.	12.	0.30	18.	25.	18.	3.
28651	STM141	COAL-A	0.	-0.014	0.	0.023	0.07	60.	-8.	-1.	72.	12.	1.	0.26	-1.	0.	51.	0.
28651	STM141	COAL-A	0.	-0.115	0.	0.191	0.32	46.	-69.	-6.	145.	98.	12.	0.45	24.	25.	13.	4.
28651	STM088	RESIDU	0.	-0.014	0.	0.023	0.07	-5.	52.	-1.	5.	63.	-11.	0.18	13.	0.	-58.	-2.
28651	STM088	RESIDU	0.	-0.087	0.	0.145	0.28	-31.	23.	-4.	41.	138.	-6.	0.35	31.	18.	1.	-0.
28651	STM088	COAL-F	0.	-0.014	0.	0.023	0.07	-5.	-8.	-1.	7.	12.	1.	0.06	-3.	0.	65.	-0.
28651	STM088	COAL-F	0.	-0.087	0.	0.145	0.28	-31.	-52.	-4.	44.	75.	9.	0.25	14.	18.	17.	2.
28651	STM088	COAL-A	0.	-0.014	0.	0.023	0.07	60.	-8.	-1.	72.	12.	1.	0.26	-1.	0.	52.	0.
28651	STM088	COAL-A	0.	-0.087	0.	0.145	0.28	50.	-52.	-4.	125.	75.	9.	0.41	18.	18.	13.	3.
28651	PFBSTM	COAL-P	0.	-0.014	0.	0.023	0.07	60.	-9.	-1.	72.	12.	1.	0.26	-2.	0.	55.	-0.
28651	PFBSTM	COAL-P	0.	-0.182	0.	0.290	0.38	66.	-109.	7.	217.	149.	35.	0.55	27.	41.	21.	3.
28651	TISTMT	RESIDU	0.	-0.014	0.	0.023	0.07	-5.	52.	-1.	5.	63.	-11.	0.18	4.	0.	0.	-3.
28651	TISTMT	RESIDU	0.	-0.145	0.	0.231	0.35	-51.	-1.	-7.	67.	193.	-2.	0.40	-22.	32.	52.	-9.
28651	TISTMT	COAL	0.	-0.014	0.	0.023	0.07	-5.	-9.	-1.	7.	12.	1.	0.06	-11.	0.	118.	-1.
28651	TISTMT	COAL	0.	-0.239	0.	0.381	0.42	-84.	-144.	-12.	116.	196.	25.	0.39	-63.	55.	58.	-8.
28651	TIHRSG	RESIDU	0.	-0.019	0.	0.018	0.06	-7.	50.	-1.	3.	61.	-11.	0.16	-4.	0.	53.	-4.
28651	TIHRSG	RESIDU	0.	-0.083	0.	0.080	0.18	-29.	24.	-4.	21.	103.	-9.	0.26	-30.	12.	85.	-9.
28651	TIHRSG	COAL	0.	-0.019	0.	0.018	0.06	-7.	-11.	-1.	5.	9.	1.	0.05	-21.	0.	183.	-3.
28651	TIHRSG	COAL	0.	-0.136	0.	0.132	0.24	-48.	-82.	-7.	39.	65.	9.	0.21	-74.	22.	104.	-10.
28651	STIRL	DISTIL	0.	-0.020	0.	0.017	0.05	30.	86.	9.	42.	106.	11.	0.49	10.	0.	-31.	-5.
28651	STIRL	DISTIL	0.	-0.237	0.	0.194	0.27	-20.	25.	5.	119.	261.	31.	0.60	28.	37.	31.	-9.
28651	STIRL	RESIDU	0.	-0.020	0.	0.017	0.05	-7.	49.	-1.	2.	60.	-11.	0.16	10.	0.	-35.	-2.
28651	STIRL	RESIDU	0.	-0.237	0.	0.194	0.27	-83.	-37.	-21.	52.	183.	-16.	0.32	28.	37.	26.	-5.
28651	STIRL	COAL	0.	-0.020	0.	0.017	0.05	-7.	-12.	-1.	5.	8.	1.	0.04	-4.	0.	71.	-0.
28651	STIRL	COAL	0.	-0.390	0.	0.319	0.32	-136.	-234.	-19.	92.	154.	22.	0.28	-4.	63.	37.	-2.
28651	HEGT85	COAL-A	0.	-0.029	0.	0.008	0.03	58.	-17.	-1.	70.	3.	1.	0.23	-7.	0.	95.	-1.
28651	HEGT85	COAL-A	0.	-1.708	0.	0.481	0.19	-262.	-1025.	-85.	443.	172.	44.	0.28	-19.	202.	43.	-21.
28651	HEGT60	COAL-A	0.	-0.028	0.	0.009	0.03	58.	-17.	-1.	70.	3.	1.	0.23	-7.	0.	93.	-1.
28651	HEGT60	COAL-A	0.	-0.743	0.	0.242	0.19	-86.	-446.	-37.	231.	93.	21.	0.29	-21.	89.	46.	-10.
28651	HEGT00	COAL-A	0.	-0.028	0.	0.009	0.03	58.	-17.	-1.	70.	4.	1.	0.23	-7.	0.	91.	-1.
28651	HEGT00	COAL-A	0.	-0.332	0.	0.111	0.15	-12.	-199.	-17.	131.	43.	10.	0.26	-14.	38.	46.	-5.
28651	FCMCCL	COAL	0.	-0.561	0.	0.246	0.22	100.	172.	12.	360.	614.	60.	1.00	2.	72.	40.	-6.
28651	FCSTCL	COAL	0.	-0.765	0.	0.539	0.34	100.	172.	12.	520.	885.	89.	1.00	23.	119.	34.	-4.
28651	IGGTST	COAL	0.	-0.693	0.	0.225	0.19	-243.	-416.	9.	53.	86.	64.	0.18	15.	83.	35.	-4.
28651	GTSOAR	RESIDU	-0.308	0.288	-0.308	0.325	0.05	67.	57.	12.	79.	77.	14.	0.53	11.	0.	-47.	-2.
28651	GTSOAR	RESIDU	-0.560	0.288	-0.560	0.796	0.30	-13.	-38.	10.	150.	240.	40.	0.57	45.	44.	19.	-3.
28651	GTAC08	RESIDU	0.	-0.017	0.	0.020	0.06	-6.	51.	-1.	4.	62.	-11.	0.17	12.	0.	-53.	-2.
28651	GTAC08	RESIDU	0.	-0.189	0.	0.213	0.31	-139.	-18.	-17.	-13.	188.	-12.	0.25	41.	34.	14.	-1.
28651	GTAC12	RESIDU	0.	-0.018	0.	0.020	0.06	-6.	51.	-1.	3.	62.	-11.	0.17	12.	0.	-53.	-2.
28651	GTAC12	RESIDU	0.	-0.237	0.	0.264	0.33	-168.	-37.	-21.	-11.	221.	-12.	0.26	46.	43.	16.	-1.
28651	GTAC16	RESIDU	0.	-0.018	0.	0.019	0.06	-6.	51.	-1.	3.	62.	-11.	0.17	12.	0.	-52.	-2.
28651	GTAC16	RESIDU	0.	-0.271	0.	0.293	0.34	-188.	-51.	-23.	-11.	241.	-12.	0.27	49.	49.	18.	-2.
28651	GTWC16	RESIDU	0.	-0.020	0.	0.017	0.05	-7.	50.	-1.	3.	61.	-11.	0.16	12.	0.	-49.	-2.
28651	GTWC16	RESIDU	0.	-0.318	0.	0.279	0.32	-216.	-69.	-27.	-29.	239.	-16.	0.23	53.	52.	20	-3.
28651	CC1625	RESIDU	0.	-0.020	0.	0.017	0.05	-7.	5	-1.	3.	61.	-11.	0.16	12.	0.	-4(	-2.
28651	CC162	ESIDU	0.	-0.530	0.	0.463	0.36	-344.	-15	-43.	-30.	364.	-17.	0.26	80.	90.	22.	-3.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	****DIRECT**** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	----DIRECT---- NOX	SOX	PART	********TOTAL******** NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28651	CC1622	RESIDU	0.	-0.019	0.	0.018	0.06	-7.	50.	-1.	3.	61.	-11.	0.16	12.	0.	-51.	-2.
28651	CC1622	RESIDU	0.	-0.457	0.	0.437	0.37	-300.	-125.	-38.	-18.	341.	-15.	0.28	71.	80.	22.	-3.
28651	CC1222	RESIDU	0.	-0.019	0.	0.018	0.06	-7.	50.	-1.	3.	61.	-11.	0.16	12.	0.	-52.	-2.
28651	CC1222	RESIDU	0.	-0.452	0.	0.439	0.37	-297.	-123.	-37.	-15.	342.	-14.	0.28	72.	80.	21.	-3.
28651	CC0822	RESIDU	0.	-0.018	0.	0.020	0.06	-6.	51.	-1.	4.	62.	-11.	0.17	12.	0.	-52.	-2.
28651	CC0822	RESIDU	0.	-0.337	0.	0.377	0.38	-228.	-77.	-28.	-3.	294.	-11.	0.29	62.	63.	18.	-1.
28651	STIG15	RESIDU	0.	-0.031	0.	0.006	0.02	-11.	45.	-2.	-1.	56.	-12.	0.13	12.	0.	-40.	-3.
28651	STIG15	RESIDU	0.	-18.550	0.	3.879	0.17	-11156.	-7363.	-554.	-4081.	4339.	20.	0.01	1497.	2100.	37.	-297.
28651	STIG10	RESIDU	0.	-0.025	0.	0.009	0.03	-10.	46.	-1.	-0.	57.	-12.	0.14	12.	0.	-44.	-2.
28651	STIG10	RESIDU	0.	-1.560	0.	0.514	0.22	-962.	-566.	-45.	-308.	512.	4.	0.09	147.	191.	33.	-23.
28651	STIG1S	RESIDU	0.	-0.027	0.	0.010	0.03	-9.	47.	-1.	0.	58.	-12.	0.14	12.	0.	-46.	-2.
28651	STIG1S	RESIDU	0.	-0.874	0.	0.343	0.23	-550.	-292.	-24.	-167.	339.	1.	0.12	94.	111.	30.	-13.
28651	DEADV3	RESIDU	0.	-0.024	0.	0.014	0.04	-8.	48.	-1.	1.	59.	-11.	0.15	8.	0.	-20.	-3.
28651	DEADV3	RESIDU	0.	-0.803	0.	0.462	0.30	-824.	-264.	-64.	-425.	396.	-33.	-0.04	44.	115.	37.	-15.
28651	DEHTPM	RESIDU	0.	-0.017	0.	0.020	0.06	-6.	51.	-1.	4.	62.	-11.	0.17	8.	0.	-24.	-3.
28651	DEHTPM	RESIDU	0.	-0.280	0.	0.330	0.37	-327.	-54.	-24.	-135.	262.	-11.	0.14	27.	54.	28.	-5.
28651	DESOA3	DISTIL	-0.314	0.288	-0.314	0.325	0.04	93.	122.	14.	103.	133.	4.	0.74	9.	0.	-18.	-5.
28651	DESOA3	DISTIL	-1.286	0.288	-1.286	1.739	0.26	-1994.	-36.	14.	-1537.	719.	49.	-0.47	20.	133.	50.	-35.
28651	DESOA3	RESIDU	-0.314	0.288	-0.314	0.325	0.04	66.	55.	12.	78.	75.	14.	0.52	9.	0.	-24.	-3.
28651	DESOA3	RESIDU	-1.286	0.288	-1.286	1.739	0.26	-4375.	-311.	4.	-3908.	482.	90.	-2.04	20.	133.	44.	-24.
28651	GTSOAD	DISTIL	-0.306	0.288	-0.306	0.325	0.06	93.	123.	14.	103.	134.	4.	0.75	12.	0.	-50.	-5.
28651	GTSOAD	DISTIL	-0.526	0.288	-0.526	0.768	0.32	28.	87.	14.	179.	334.	22.	0.73	47.	42.	20.	-6.
28651	GTRA08	DISTIL	0.	-0.019	0.	0.018	0.05	30.	86.	9.	42.	107.	11.	0.50	11.	0.	-43.	-5.
28651	GTRA08	DISTIL	0.	-0.403	0.	0.368	0.35	-144.	-22.	3.	104.	400.	48.	0.55	59.	69.	26.	-9.
28651	GTRA12	DISTIL	0.	-0.019	0.	0.018	0.06	30.	86.	9.	42.	107.	11.	0.50	11.	0.	-44.	-5.
28651	GTRA12	DISTIL	0.	-0.389	0.	0.369	0.35	-138.	-18.	3.	105.	397.	48.	0.55	59.	68.	26.	-8.
28651	GTRA16	DISTIL	0.	-0.019	0.	0.018	0.06	30.	86.	9.	42.	107.	11.	0.50	11.	0.	-43.	-5.
28651	GTRA16	DISTIL	0.	-0.363	0.	0.347	0.35	-128.	-11.	3.	100.	378.	45.	0.55	55.	63.	26.	-8.
28651	GTR208	DISTIL	0.	-0.019	0.	0.018	0.06	30.	86.	9.	42.	107.	11.	0.50	12.	0.	-45.	-5.
28651	GTR208	DISTIL	0.	-0.305	0.	0.288	0.33	-105.	6.	4.	86.	330.	39.	0.54	31.	52.	24.	-7.
28651	GTR212	DISTIL	0.	-0.019	0.	0.018	0.06	30.	86.	9.	42.	107.	11.	0.50	11.	0.	-44.	-5.
28651	GTR212	DISTIL	0.	-0.329	0.	0.307	0.33	-114.	-1.	4.	90.	347.	42.	0.55	53.	56.	24.	-8.
28651	GTR216	DISTIL	0.	-0.019	0.	0.018	0.06	30.	86.	9.	42.	107.	11.	0.50	11.	0.	-44.	-5.
28651	GTR216	DISTIL	0.	-0.330	0.	0.321	0.34	-115.	-1.	4.	95.	355.	42.	0.55	52.	58.	25.	-8.
28651	GTRW08	DISTIL	0.	-0.022	0.	0.015	0.05	29.	86.	9.	41.	106.	11.	0.49	11.	0.	-39.	-5.
28651	GTRW08	DISTIL	0.	-0.554	0.	0.370	0.31	-204.	-64.	0.	93.	441.	55.	0.51	74.	83.	29.	-12.
28651	GTRW12	DISTIL	0.	-0.021	0.	0.016	0.05	30.	86.	9.	42.	106.	11.	0.49	11.	0.	-40.	-5.
28651	GTRW12	DISTIL	0.	-0.543	0.	0.402	0.33	-200.	-61.	0.	104.	456.	56.	0.53	75.	85.	28.	-12.
28651	GTRW16	DISTIL	0.	-0.021	0.	0.016	0.05	30.	86.	9.	42.	106.	11.	0.49	11.	0.	-39.	-5.
28651	GTRW16	DISTIL	0.	-0.502	0.	0.379	0.32	-184.	-49.	1.	100.	432.	53.	0.53	70.	79.	28.	-11.
28651	GTR308	DISTIL	0.	-0.023	0.	0.014	0.04	29.	85.	9.	41.	106.	11.	0.49	11.	0.	-40.	-5.
28651	GTR308	DISTIL	0.	-0.439	0.	0.265	0.27	-159.	-32.	2.	69.	353.	44.	0.49	60.	63.	29.	-11.
28651	GTR312	DISTIL	0.	-0.021	0.	0.016	0.05	30.	86.	9.	42.	106.	11.	0.49	11.	0.	-42.	-5.
28651	GTR312	DISTIL	0.	-0.437	0.	0.338	0.32	-158.	-31.	2.	92.	393.	48.	0.53	65.	69.	27.	-10.
28651	GTR316	DISTIL	0.	-0.021	0.	0.016	0.05	30.	86.	9.	42.	106.	11.	0.49	11.	0.	-41.	-5.
28651	GTR316	DISTIL	0.	-0.433	0.	0.331	0.31	-156.	-30.	2.	90.	388.	47.	0.53	63.	68.	27.	-10.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28651	FCPADS	DISTIL	0.	-0.025	0.	0.012	0.04	29.	85.	9.	41.	105.	11.	0.49	10.	0.	-17.	-6.
28651	FCPADS	DISTIL	0.	-1.152	0.	0.558	0.28	-187.	121.	11.	364.	1056.	113.	0.82	68.	157.	53.	-50.
28651	FCMCDS	DISTIL	0.	-0.021	0.	0.016	0.05	30.	86.	9.	42.	106.	11.	0.49	9.	0.	-21.	-5.
28651	FCMCDS	DISTIL	0.	-0.763	0.	0.590	0.36	-595.	119.	-2.	-160.	859.	78.	0.50	50.	123.	48.	-34.
28653	STM141	RESIDU	0.	-0.020	0.	0.033	0.10	-7.	50.	-1.	8.	69.	-10.	0.20	13.	0.	-28.	-2.
28653	STM141	RESIDU	0.	-0.044	0.	0.073	0.18	-15.	40.	-2.	20.	94.	-9.	0.26	19.	6.	-8.	-1.
28653	STM141	COAL-F	0.	-0.020	0.	0.033	0.10	-7.	-12.	-1.	10.	17.	2.	0.09	-3.	0.	52.	0.
28653	STM141	COAL-F	0.	-0.044	0.	0.073	0.18	-15.	-26.	-2.	22.	37.	5.	0.16	6.	6.	20.	2.
28653	STM141	COAL-A	0.	-0.020	0.	0.033	0.10	60.	-12.	-1.	76.	17.	2.	0.28	1.	0.	35.	1.
28653	STM141	COAL-A	0.	-0.044	0.	0.073	0.18	56.	-26.	-2.	94.	37.	5.	0.34	13.	6.	4.	2.
28653	STM088	RESIDU	0.	-0.020	0.	0.033	0.10	-7.	50.	-1.	8.	69.	-10.	0.20	13.	0.	-31.	-2.
28653	STM088	RESIDU	0.	-0.029	0.	0.047	0.13	-10.	46.	-1.	12.	79.	-10.	0.22	17.	2.	-24.	-1.
28653	STM088	COAL-F	0.	-0.020	0.	0.033	0.10	-7.	-12.	-1.	10.	17.	2.	0.09	-2.	0.	48.	0.
28653	STM088	COAL-F	0.	-0.029	0.	0.047	0.13	-10.	-17.	-1.	14.	24.	3.	0.12	4.	2.	19.	1.
28653	STM088	COAL-A	0.	-0.020	0.	0.033	0.10	60.	-12.	-1.	76.	17.	2.	0.28	3.	0.	27.	1.
28653	STM088	COAL-A	0.	-0.029	0.	0.047	0.13	58.	-17.	-1.	83.	24.	3.	0.31	10.	2.	-1.	2.
28653	PFBSTM	COAL-P	0.	-0.021	0.	0.032	0.09	65.	-12.	2.	82.	16.	5.	0.31	-3.	0.	55.	-0.
28653	PFBSTM	COAL-P	0.	-0.084	0.	0.129	0.26	73.	-51.	9.	142.	66.	21.	0.47	9.	15.	24.	1.
28653	TISTMT	RESIDU	0.	-0.020	0.	0.032	0.09	-7.	50.	-1.	7.	69.	-10.	0.20	-1.	0.	40.	-4.
28653	TISTMT	RESIDU	0.	-0.114	0.	0.180	0.31	-40.	12.	-6.	52.	161.	-4.	0.37	-27.	23.	59.	-3.
28653	TISTMT	COAL	0.	-0.020	0.	0.032	0.09	-7.	-12.	-1.	10.	16.	2.	0.08	-18.	0.	123.	-2.
28653	TISTMT	COAL	0.	-0.114	0.	0.180	0.31	-40.	-68.	-6.	55.	92.	12.	0.28	-48.	23.	72.	-5.
28653	TIHRSG	RESIDU	0.	-0.035	0.	0.017	0.05	-12.	44.	-2.	2.	63.	-12.	0.16	-9.	0.	84.	-5.
28653	TIHRSG	RESIDU	0.	-0.122	0.	0.059	0.13	-43.	9.	-6.	12.	96.	-12.	0.21	-36.	12.	93.	-11.
28653	TIHRSG	COAL	0.	-0.035	0.	0.017	0.05	-12.	-21.	-2.	4.	7.	1.	0.04	-27.	0.	171.	-3.
28653	TIHRSG	COAL	0.	-0.122	0.	0.059	0.13	-43.	-73.	-6.	15.	26.	5.	0.10	-56.	12.	115.	-8.
28653	STIRL	DISTIL	0.	-0.031	0.	0.022	0.06	28.	84.	9.	45.	112.	12.	0.50	11.	0.	-9.	-5.
28653	STIRL	DISTIL	0.	-0.193	0.	0.137	0.22	-10.	38.	6.	97.	218.	26.	0.57	19.	26.	32.	-9.
28653	STIRL	RESIDU	0.	-0.031	0.	0.022	0.06	-11.	46.	-4.	4.	65.	-13.	0.16	11.	0.	-14.	-3.
28653	STIRL	RESIDU	0.	-0.193	0.	0.137	0.22	-68.	-19.	-22.	35.	147.	-22.	0.27	19.	26.	28.	-5.
28653	STIRL	COAL	0.	-0.031	0.	0.022	0.06	-11.	-18.	-2.	6.	10.	2.	0.05	-3.	0.	57.	-0.
28653	STIRL	COAL	0.	-0.193	0.	0.137	0.22	-68.	-116.	-10.	39.	65.	10.	0.19	-4.	26.	39.	-1.
28653	HEGT00	COAL-A	0.	-0.043	0.	0.009	0.03	52.	-26.	-2.	69.	3.	1.	0.21	-9.	0.	89.	-1.
28653	HEGT00	COAL-A	0.	-0.242	0.	0.050	0.09	5.	-145.	-12.	99.	15.	5.	0.21	-15.	22.	53.	-4.
28653	FCMCCL	COAL	0.	-0.025	0.	0.028	0.08	11.	18.	1.	28.	47.	4.	0.23	-10.	0.	87.	-1.
28653	FCMCCL	COAL	0.	-0.234	0.	0.263	0.33	101.	173.	13.	261.	445.	43.	1.00	-5.	42.	38.	-2.
28653	FCSTCL	COAL	0.	-0.024	0.	0.029	0.08	8.	13.	1.	25.	42.	4.	0.21	-9.	0.	85.	-1.
28653	FCSTCL	COAL	0.	-0.307	0.	0.376	0.39	101.	173.	13.	321.	547.	53.	1.00	1.	59.	34.	-1.
28653	IGGTST	COAL	0.	-0.030	0.	0.022	0.07	-11.	-18.	1.	6.	11.	4.	0.06	-9.	0.	84.	-1.
28653	IGGTST	COAL	0.	-0.266	0.	0.197	0.26	-93.	-159.	12.	56.	94.	39.	0.26	-1.	39.	35.	-1.
28653	GTSOAR	RESIDU	-0.321	0.289	-0.321	0.342	0.06	68.	53.	12.	75.	81.	15.	0.51	11.	0.	-14.	-3.
28653	GTSOAR	RESIDU	-0.643	0.289	-0.643	0.872	0.26	-59.	-68.	9.	128.	250.	44.	0.51	46.	50.	24.	-4.
28653	GTAC08	RESIDU	0.	-0.024	0.	0.028	0.08	-24.	48.	-3.	-10.	67.	-12.	0.13	12.	0.	-21.	-2.
28653	GTAC08	RESIDU	0.	-0.188	0.	0.215	0.31	-185.	-17.	-22.	-59.	189.	-17.	0.17	37.	33.	15.	-1.
28653	GTAC12	RESIDU	0.	-0.025	0.	0.027	0.08	-23.	48.	-3.	-8.	67.	-12.	0.14	12.	0.	-21.	-2.
28653	GTAC12	RESIDU	0.	-0.241	0.	0.265	0.33	-217.	-39.	-26.	-58.	222.	-17.	0.19	43.	43.	17.	-1.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	****DIRECT**** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28653	GTAC16	RESIDU	0.	-0.026	0.	0.026	0.08	-22.	47.	-3.	-8.	67.	-12.	0.14	11.	0.	-20.	-2.
28653	GTAC16	RESIDU	0.	-0.295	0.	0.295	0.34	-250.	-60.	-30.	-64.	245.	-19.	0.19	47.	50.	20.	-2.
28653	GTWC16	RESIDU	0.	-0.028	0.	0.025	0.07	-23.	47.	-3.	-9.	66.	-12.	0.13	11.	0.	-17.	-2.
28653	GTWC16	RESIDU	0.	-0.317	0.	0.280	0.32	-263.	-69.	-32.	-75.	239.	-21.	0.17	49.	51.	20.	-3.
28653	CC1626	RESIDU	0.	-0.029	0.	0.024	0.07	-22.	46.	-3.	-7.	66.	-12.	0.14	11.	0.	-16.	-3.
28653	CC1626	RESIDU	0.	-0.472	0.	0.395	0.34	-355.	-131.	-44.	-82.	320.	-23.	0.20	66.	76.	22.	-4.
28653	CC1622	RESIDU	0.	-0.027	0.	0.025	0.07	-21.	47.	-3.	-7.	66.	-12.	0.14	12.	0.	-18.	-2.
28653	CC1622	RESIDU	0.	-0.405	0.	0.372	0.35	-316.	-104.	-39.	-71.	300.	-20.	0.21	58.	68.	22.	-3.
28653	CC1222	RESIDU	0.	-0.027	0.	0.025	0.07	-21.	47.	-3.	-7.	66.	-12.	0.14	12.	0.	-19.	-2.
28653	CC1222	RESIDU	0.	-0.399	0.	0.373	0.35	-312.	-102.	-38.	-68.	300.	-20.	0.21	60.	67.	21.	-3.
28653	CC0822	RESIDU	0.	-0.025	0.	0.027	0.08	-21.	48.	-3.	-7.	67.	-12.	0.14	12.	0.	-19.	-2.
28653	CC0822	RESIDU	0.	-0.292	0.	0.315	0.35	-248.	-59.	-30.	-57.	256.	-17.	0.21	50.	52.	19.	-2.
28653	DEHTPM	RESIDU	0.	-0.030	0.	0.022	0.06	-48.	46.	-3.	-33.	65.	-13.	0.06	7.	0.	5.	-3.
28653	DEHTPM	RESIDU	0.	-0.281	0.	0.204	0.26	-440.	-54.	-29.	-289.	194.	-23.	-0.16	12.	41.	36.	-7.
28653	GTS0AD	DISTIL	-0.316	0.289	-0.316	0.342	0.07	83.	122.	14.	98.	141.	5.	0.72	12.	0.	-17.	-5.
28653	GTS0AD	DISTIL	-0.543	0.289	-0.543	0.785	0.31	-7.	85.	14.	148.	340.	22.	0.68	45.	42.	21.	-6.
28653	GTRA08	DISTIL	0.	-0.032	0.	0.021	0.06	19.	83.	9.	36.	112.	12.	0.47	11.	0.	-9.	-5.
28653	GTRA08	DISTIL	0.	-0.608	0.	0.393	0.30	-258.	-79.	-1.	64.	469.	58.	0.49	69.	89.	31.	-14.
28653	GTRA12	DISTIL	0.	-0.031	0.	0.022	0.06	20.	84.	9.	37.	112.	12.	0.48	11.	0.	-10.	-5.
28653	GTRA12	DISTIL	0.	-0.546	0.	0.389	0.32	-233.	-61.	0.	68.	449.	56.	0.50	66.	83.	30.	-12.
28653	GTRA16	DISTIL	0.	-0.030	0.	0.022	0.07	20.	84.	9.	37.	112.	12.	0.48	11.	0.	-9.	-5.
28653	GTRA16	DISTIL	0.	-0.483	0.	0.359	0.32	-208.	-44.	1.	63.	417.	51.	0.50	58.	74.	30.	-11.
28653	GTR208	DISTIL	0.	-0.030	0.	0.023	0.07	19.	84.	9.	36.	113.	12.	0.47	11.	0.	-12.	-5.
28653	GTR208	DISTIL	0.	-0.375	0.	0.289	0.30	-165.	-13.	3.	49.	350.	43.	0.49	52.	57.	27.	-9.
28653	GTR212	DISTIL	0.	-0.030	0.	0.023	0.07	19.	84.	9.	36.	113.	12.	0.48	11.	0.	-11.	-5.
28653	GTR212	DISTIL	0.	-0.403	0.	0.311	0.31	-176.	-21.	3.	54.	369.	45.	0.49	54.	62.	28.	-10.
28653	GTR216	DISTIL	0.	-0.029	0.	0.023	0.07	20.	84.	9.	36.	113.	12.	0.48	11.	0.	-11.	-5.
28653	GTR216	DISTIL	0.	-0.410	0.	0.327	0.32	-179.	-23.	3.	58.	380.	46.	0.50	53.	64.	28.	-10.
28653	GTRW08	DISTIL	0.	-0.035	0.	0.018	0.05	19.	82.	9.	35.	111.	12.	0.47	11.	0.	-6.	-5.
28653	GTRW08	DISTIL	0.	-0.772	0.	0.392	0.27	-323.	-125.	-4.	51.	511.	65.	0.46	85.	104.	33.	-18.
28653	GTRW12	DISTIL	0.	-0.033	0.	0.020	0.06	19.	83.	9.	36.	112.	12.	0.47	11.	0.	-7.	-5.
28653	GTRW12	DISTIL	0.	-0.709	0.	0.427	0.30	-298.	-107.	-3.	67.	514.	65.	0.48	83.	102.	31.	-15.
28653	GTRW16	DISTIL	0.	-0.032	0.	0.020	0.06	19.	83.	9.	36.	112.	12.	0.47	11.	0.	-7.	-5.
28653	GTRW16	DISTIL	0.	-0.619	0.	0.394	0.30	-262.	-82.	-1.	64.	472.	59.	0.48	73.	90.	30.	-14.
28653	GTR308	DISTIL	0.	-0.036	0.	0.016	0.05	17.	82.	9.	34.	111.	12.	0.46	11.	0.	-6.	-5.
28653	GTR308	DISTIL	0.	-0.594	0.	0.262	0.23	-252.	-75.	-1.	23.	393.	50.	0.43	65.	75.	33.	-15.
28653	GTR312	DISTIL	0.	-0.031	0.	0.022	0.06	19.	83.	9.	36.	112.	12.	0.47	11.	0.	-10.	-5.
28653	GTR312	DISTIL	0.	-0.491	0.	0.343	0.31	-211.	-46.	1.	57.	410.	51.	0.49	64.	73.	28.	-11.
28653	GTR316	DISTIL	0.	-0.031	0.	0.021	0.06	19.	83.	9.	36.	112.	12.	0.47	11.	0.	-9.	-5.
28653	GTR316	DISTIL	0.	-0.483	0.	0.335	0.30	-208.	-44.	1.	56.	404.	50.	0.49	62.	72.	29.	-11.
28653	FCPADS	DISTIL	0.	-0.035	0.	0.017	0.05	28.	95.	10.	45.	123.	13.	0.54	10.	0.	8.	-6.
28653	FCPADS	DISTIL	0.	-1.158	0.	0.561	0.28	-181.	174.	14.	372.	1113.	116.	0.85	64.	156.	53.	-50.
28653	FCMCDS	DISTIL	0.	-0.030	0.	0.023	0.07	7.	95.	9.	23.	124.	12.	0.47	10.	0.	3.	-6.
28653	FCMCDS	DISTIL	0.	-0.766	0.	0.593	0.36	-696.	172.	-1.	-258.	915.	79.	0.47	47.	123.	48.	-33.
28654	STM141	RESIDU	0.	-0.002	0.	0.004	0.02	-1.	40.	-0.	-0.	37.	-8.	0.14	9.	0.	-367.	-2.
28654	STM141	RESIDU	0.	-0.015	0.	0.025	0.10	-5.	35.	-1.	6.	50.	-7.	0.20	12.	3.	-44.	-1.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	****DIRECT***** FUEL	OIL+GAS	-----TOTAL---- COAL	OIL+GAS	FESR COAL	NOX	SOX	PART	NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28654	STM141	COAL-F	0.	-0.002	0.	0.004	0.02	-1.	-1.	-0.	1.	2.	0.	0.02	-2.	0.	193.	-1.
28654	STM141	COAL-F	0.	-0.015	0.	0.025	0.10	-5.	-9.	-1.	8.	13.	2.	0.09	2.	3.	23.	0.
28654	STM141	COAL-A	0.	-0.002	0.	0.004	0.02	44.	-1.	-0.	46.	2.	0.	0.23	-2.	0.	158.	-0.
28654	STM141	COAL-A	0.	-0.015	0.	0.025	0.10	42.	-9.	-1.	55.	13.	2.	0.29	7.	3.	-9.	1.
28654	PFBSTM	COAL-P	0.	-0.002	0.	0.003	0.02	44.	-1.	0.	46.	2.	1.	0.23	-1.	0.	138.	-0.
28654	PFBSTM	COAL-P	0.	-0.044	0.	0.062	0.20	53.	-26.	7.	87.	32.	13.	0.43	4.	9.	29.	0.
28654	TISTMT	RESIDU	0.	-0.002	0.	0.004	0.02	-1.	40.	-0.	-0.	37.	-8.	0.14	7.	0.	-291.	-2.
28654	TISTMT	RESIDU	0.	-0.061	0.	0.095	0.26	-21.	17.	-3.	27.	94.	-4.	0.33	-24.	14.	74.	-7.
28654	TISTMT	COAL	0.	-0.002	0.	0.004	0.02	-1.	-1.	-0.	1.	2.	0.	0.02	-4.	0.	238.	-1.
28654	TISTMT	COAL	0.	-0.061	0.	0.095	0.26	-21.	-37.	-3.	29.	49.	6.	0.24	-39.	14.	96.	-5.
28654	TIHRSG	RESIDU	0.	-0.004	0.	0.002	0.01	-1.	39.	-0.	-1.	36.	-8.	0.13	6.	0.	-251.	-2.
28654	TIHRSG	RESIDU	0.	-0.086	0.	0.042	0.13	-30.	6.	-4.	9.	68.	-8.	0.21	-29.	11.	101.	-8.
28654	TIHRSG	COAL	0.	-0.004	0.	0.002	0.01	-1.	-2.	-0.	1.	1.	0.	0.01	-5.	0.	285.	-1.
28654	TIHRSG	COAL	0.	-0.086	0.	0.042	0.13	-30.	-52.	-4.	11.	18.	3.	0.10	-45.	11.	127.	-7.
28654	STIRL	DISTIL	0.	-0.003	0.	0.002	0.01	24.	64.	7.	26.	67.	7.	0.48	8.	0.	-346.	-3.
28654	STIRL	DISTIL	0.	-0.137	0.	0.097	0.22	-7.	27.	4.	68.	154.	18.	0.57	16.	21.	31.	-6.
28654	STIRL	RESIDU	0.	-0.003	0.	0.002	0.01	-1.	40.	-0.	-1.	37.	-8.	0.13	8.	0.	-350.	-2.
28654	STIRL	RESIDU	0.	-0.137	0.	0.097	0.22	-48.	-14.	-16.	25.	104.	-16.	0.27	16.	21.	26.	-4.
28654	STIRL	COAL	0.	-0.003	0.	0.002	0.01	-1.	-2.	-0.	1.	1.	0.	0.01	-2.	0.	156.	-0.
28654	STIRL	COAL	0.	-0.137	0.	0.097	0.22	-48.	-82.	-7.	27.	46.	7.	0.19	-2.	21.	39.	-1.
28654	HEGT00	COAL-A	0.	-0.005	0.	0.001	0.00	43.	-3.	-0.	45.	0.	0.	0.21	-2.	0.	128.	-0.
28654	HEGT00	COAL-A	0.	-0.171	0.	0.036	0.09	3.	-103.	-9.	70.	10.	4.	0.21	-13.	19.	58.	-4.
28654	FCMCCL	COAL	0.	-0.003	0.	0.003	0.01	1.	2.	0.	3.	5.	1.	0.04	-4.	0.	234.	-1.
28654	FCMCCL	COAL	0.	-0.165	0.	0.186	0.33	71.	122.	9.	184.	315.	30.	1.00	-7.	32.	41.	-2.
28654	FCSTCL	COAL	0.	-0.003	0.	0.003	0.02	1.	2.	0.	3.	5.	0.	0.04	-4.	0.	239.	-1.
28654	FCSTCL	COAL	0.	-0.189	0.	0.226	0.36	71.	122.	9.	205.	350.	34.	1.00	-5.	38.	39.	-2.
28654	IGGTST	COAL	0.	-0.004	0.	0.002	0.01	-1.	-2.	0.	1.	1.	1.	0.01	-3.	0.	221.	-1.
28654	IGGTST	COAL	0.	-0.162	0.	0.107	0.23	-57.	-97.	8.	30.	50.	24.	0.23	-6.	25.	42.	-2.
28654	GTSOAR	RESIDU	-0.208	0.204	-0.208	0.210	0.01	48.	44.	9.	50.	48.	9.	0.51	9.	0.	-384.	-2.
28654	GTSOAR	RESIDU	-0.454	0.204	-0.454	0.616	0.26	-42.	-48.	7.	90.	177.	31.	0.51	34.	38.	24.	-4.
28654	GTAC08	RESIDU	0.	-0.003	0.	0.003	0.01	-3.	40.	-0.	-2.	37.	-8.	0.12	9.	0.	-394.	-2.
28654	GTAC08	RESIDU	0.	-0.133	0.	0.152	0.31	-131.	-12.	-16.	-42.	133.	-12.	0.17	28.	26.	14.	-1.
28654	GTAC12	RESIDU	0.	-0.003	0.	0.003	0.01	-3.	40.	-0.	-2.	37.	-8.	0.13	9.	0.	-397.	-2.
28654	GTAC12	RESIDU	0.	-0.171	0.	0.187	0.33	-153.	-27.	-18.	-41.	157.	-12.	0.19	32.	33.	17.	-1.
28654	GTAC16	RESIDU	0.	-0.003	0.	0.003	0.01	-2.	40.	-0.	-2.	37.	-8.	0.13	9.	0.	-396.	-2.
28654	GTAC16	RESIDU	0.	-0.209	0.	0.208	0.34	-176.	-43.	-21.	-45.	173.	-13.	0.19	35.	39.	20.	-2.
28654	GTWC16	RESIDU	0.	-0.003	0.	0.003	0.01	-3.	40.	-0.	-2.	37.	-8.	0.12	9.	0.	-389.	-2.
28654	GTWC16	RESIDU	0.	-0.224	0.	0.198	0.32	-186.	-49.	-23.	-53.	169.	-15.	0.17	36.	39.	20.	-2.
28654	DEHTPM	RESIDU	0.	-0.003	0.	0.002	0.01	-5.	40.	-0.	-5.	37.	-8.	0.11	8.	0.	-337.	-2.
28654	DEHTPM	RESIDU	0.	-0.198	0.	0.144	0.26	-311.	-38.	-21.	-204.	137.	-16.	-0.16	10.	32.	36.	-6.
28654	GTSOAD	DISTIL	-0.207	0.204	-0.207	0.210	0.01	65.	89.	10.	66.	86.	2.	0.73	9.	0.	-393.	-3.
28654	GTSOAD	DISTIL	-0.383	0.204	-0.383	0.554	0.31	-5.	60.	10.	105.	240.	16.	0.68	33.	32.	21.	-5.
28654	GTRA08	DISTIL	0.	-0.004	0.	0.002	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-379.	-3.
28654	GTRA08	DISTIL	0.	-0.430	0.	0.278	0.30	-182.	-56.	-1.	46.	331.	41.	0.49	50.	66.	[illegible]	-11.
28654	GTRA[illegible]	DISTIL	0.	-0.003	0.	0.002	0.01	23.	[illegible]	7.	25.	67.	7.	0.47	9.	0.	-3[illegible]	-3.
28654	GTRA[illegible]	DISTIL	0.	-0.385	0.	0.275	0.32	-164.	-45.	0.	48.	318.	39.	0.50	48.	61.	30.	-9.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28654	GTRA16	DISTIL	0.	-0.003	0.	0.003	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-381.	-3.
28654	GTRA16	DISTIL	0.	-0.342	0.	0.254	0.32	-147.	-31.	1.	45.	295.	36.	0.50	42.	55.	30.	-9.
28654	GTR208	DISTIL	0.	-0.003	0.	0.003	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-385.	-3.
28654	GTR208	DISTIL	0.	-0.265	0.	0.204	0.30	-116.	-10.	2.	35.	247.	30.	0.49	38.	43.	27.	-7.
28654	GTR212	DISTIL	0.	-0.003	0.	0.003	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-384.	-3.
28654	GTR212	DISTIL	0.	-0.285	0.	0.220	0.31	-124.	-15.	2.	38.	261.	32.	0.49	39.	47.	28.	-7.
28654	GTR216	DISTIL	0.	-0.003	0.	0.003	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-384.	-3.
28654	GTR216	DISTIL	0.	-0.290	0.	0.231	0.32	-126.	-16.	2.	41.	268.	33.	0.50	39.	48.	28.	-7.
28654	GTRW08	DISTIL	0.	-0.004	0.	0.002	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-376.	-3.
28654	GTRW08	DISTIL	0.	-0.545	0.	0.277	0.27	-228.	-88.	-3.	36.	361.	46.	0.46	61.	77.	33.	-13.
28654	GTRW12	DISTIL	0.	-0.004	0.	0.002	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-378.	-3.
28654	GTRW12	DISTIL	0.	-0.501	0.	0.301	0.30	-211.	-76.	-2.	48.	363.	46.	0.48	60.	75.	31.	-12.
28654	GTRW16	DISTIL	0.	-0.004	0.	0.002	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-376.	-3.
28654	GTRW16	DISTIL	0.	-0.437	0.	0.279	0.30	-185.	-58.	-1.	45.	334.	42.	0.48	53.	67.	31.	-10.
28654	GTR308	DISTIL	0.	-0.004	0.	0.002	0.01	23.	64.	7.	24.	67.	7.	0.47	9.	0.	-379.	-3.
28654	GTR308	DISTIL	0.	-0.419	0.	0.185	0.23	-178.	-53.	-0.	16.	278.	35.	0.43	47.	56.	33.	-11.
28654	GTR312	DISTIL	0.	-0.003	0.	0.002	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-381.	-3.
28654	GTR312	DISTIL	0.	-0.347	0.	0.242	0.31	-149.	-32.	1.	41.	290.	36.	0.49	47.	55.	29.	-8.
28654	GTR316	DISTIL	0.	-0.003	0.	0.002	0.01	23.	64.	7.	25.	67.	7.	0.47	9.	0.	-378.	-3.
28654	GTR316	DISTIL	0.	-0.341	0.	0.237	0.30	-147.	-31.	1.	39.	285.	35.	0.49	45.	54.	29.	-8.
28654	FCPADS	DISTIL	0.	-0.004	0.	0.002	0.01	24.	65.	7.	26.	69.	7.	0.48	8.	0.	-345.	-3.
28654	FCPADS	DISTIL	0.	-0.818	0.	0.396	0.28	-128.	123.	10.	263.	787.	82.	0.85	48.	113.	53.	-36.
28654	FCMCDS	DISTIL	0.	-0.003	0.	0.003	0.01	21.	65.	7.	23.	69.	7.	0.47	8.	0.	-350.	-3.
28654	FCMCDS	DISTIL	0.	-0.541	0.	0.419	0.36	-492.	122.	-1.	-183.	647.	56.	0.47	36.	90.	48.	-24.
28691	PFBSTM	COAL-P	0.	0.	0.	0.013	1.00	0.	0.	0.	4.	7.	1.	1.00	-3.	0.	105.	-0.
28691	PFBSTM	COAL-P	0.	0.	0.	0.051	1.00	0.	0.	0.	16.	28.	3.	1.00	1.	4.	26.	0.
28691	TIHRSG	COAL	0.	0.	0.	0.013	1.00	0.	0.	0.	4.	7.	1.	1.00	-10.	0.	242.	-1.
28691	TIHRSG	COAL	0.	0.	0.	0.083	1.00	0.	0.	0.	27.	45.	5.	1.00	-34.	7.	127.	-4.
28691	HEGT00	COAL-A	0.	0.	0.	0.013	1.00	0.	0.	0.	4.	7.	1.	1.00	-4.	0.	113.	-0.
28691	HEGT00	COAL-A	0.	0.	0.	0.128	1.00	0.	0.	0.	41.	70.	8.	1.00	-11.	11.	47.	-0.
28691	GTAC16	RESIDU	0.	-0.012	0.	0.000	0.01	-4.	-5.	-1.	-0.	2.	-0.	0.06	7.	0.	-89.	1.
28691	GTRA08	DISTIL	0.	-0.011	0.	0.001	0.10	-3.	-3.	-0.	1.	4.	1.	0.49	6.	0.	-79.	1.
28691	GTRA12	DISTIL	0.	-0.011	0.	0.001	0.11	-3.	-3.	-0.	1.	4.	1.	0.49	6.	0.	-80.	1.
28691	GTRA16	DISTIL	0.	-0.012	0.	0.001	0.08	-3.	-3.	-0.	1.	4.	1.	0.48	6.	0.	-77.	1.
28691	GTR212	DISTIL	0.	-0.012	0.	0.000	0.03	-3.	-3.	-0.	1.	3.	1.	0.45	6.	0.	-77.	1.
28691	GTR216	DISTIL	0.	-0.012	0.	0.001	0.05	-3.	-3.	-0.	1.	4.	1.	0.46	6.	0.	-77.	1.
28691	GTRW08	DISTIL	0.	-0.011	0.	0.001	0.09	-3.	-3.	-0.	1.	4.	1.	0.48	6.	0.	-77.	1.
28691	GTRW12	DISTIL	0.	-0.011	0.	0.002	0.12	-3.	-3.	-0.	2.	4.	1.	0.50	6.	0.	-78.	1.
28691	GTRW16	DISTIL	0.	-0.011	0.	0.001	0.10	-3.	-3.	-0.	1.	4.	1.	0.49	6.	0.	-75.	1.
28691	GTR312	DISTIL	0.	-0.012	0.	0.001	0.06	-3.	-3.	-0.	1.	4.	1.	0.47	6.	0.	-77.	1.
28691	GTR316	DISTIL	0.	-0.012	0.	0.001	0.06	-3.	-3.	-0.	1.	4.	1.	0.46	6.	0.	-75.	1.
28691	FCPADS	DISTIL	0.	-0.011	0.	0.002	0.16	-2.	-3.	-0.	2.	4.	1.	0.52	6.	0.	-71.	1.
28691	FCMCDS	DISTIL	0.	-0.010	0.	0.003	0.22	-2.	-3.	-0.	2.	4.	1.	0.56	6.	0.	-74.	1.
28692	PFBSTM	COAL-P	0.	-0.018	0.	0.022	0.12	37.	-11.	5.	50.	11.	7.	0.37	1.	0.	39.	0.
28692	TTHRSG	RESIDU	0.	-0.039	0.	0.009	0.05	-14.	12.	-2.	0.	33.	-6.	0.15	-13.	0.	118.	-4.
28692	TIHRSG	RESIDU	0.	-0.079	0.	0.017	0.07	-28.	-4.	-4.	2.	42.	-7.	0.16	-24.	4.	113.	-6.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

TIME 1990 LEVEL ALL

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28692	TIHRSG	COAL	0.	-0.039	0.	0.009	0.05	-14.	-24.	-2.	2.	3.	1.	0.03	-26.	0.	182.	-3.
28692	TIHRSG	COAL	0.	-0.079	0.	0.017	0.07	-28.	-47.	-4.	3.	5.	2.	0.05	-38.	4.	140.	-5.
28692	HEGT00	COAL-A	0.	-0.041	0.	0.007	0.04	20.	-25.	-2.	36.	1.	1.	0.21	-9.	0.	95.	-1.
28692	HEGT00	COAL-A	0.	-0.126	0.	0.020	0.07	1.	-76.	-6.	48.	4.	2.	0.20	-12.	9.	63.	-2.
28692	FCMCCL	COAL	0.	-0.023	0.	0.025	0.13	10.	17.	1.	25.	43.	4.	0.39	-8.	0.	84.	-1.
28692	FCMCCL	COAL	0.	-0.114	0.	0.127	0.33	49.	84.	6.	126.	215.	21.	1.00	-8.	18.	44.	-1.
28692	GTS0AR	RESIDU	-0.171	0.139	-0.171	0.187	0.09	23.	19.	6.	38.	45.	8.	0.50	8.	0.	2.	-1.
28692	GTS0AR	RESIDU	-0.350	0.139	-0.350	0.457	0.23	-39.	-48.	4.	63.	125.	23.	0.49	25.	25.	26.	-3.
28692	GTAC08	RESIDU	0.	-0.023	0.	0.025	0.14	-22.	19.	-3.	-8.	40.	-6.	0.14	9.	0.	-9.	-1.
28692	GTAC08	RESIDU	0.	-0.092	0.	0.103	0.31	-90.	-9.	-11.	-29.	91.	-8.	0.17	20.	14.	14.	-0.
28692	GTAC12	RESIDU	0.	-0.023	0.	0.025	0.14	-20.	19.	-2.	-6.	40.	-6.	0.15	9.	0.	-9.	-1.
28692	GTAC12	RESIDU	0.	-0.113	0.	0.128	0.34	-103.	-17.	-12.	-27.	107.	-8.	0.20	22.	18.	16.	-0.
28692	GTAC16	RESIDU	0.	-0.024	0.	0.024	0.13	-20.	18.	-2.	-6.	39.	-6.	0.15	9.	0.	-6.	-1.
28692	GTAC16	RESIDU	0.	-0.146	0.	0.142	0.33	-123.	-31.	-15.	-32.	118.	-9.	0.19	24.	23.	-20.	-1.
28692	GTWC16	RESIDU	0.	-0.025	0.	0.023	0.12	-21.	18.	-3.	-7.	39.	-6.	0.14	8.	0.	-4.	-1.
28692	GTWC16	RESIDU	0.	-0.152	0.	0.135	0.32	-126.	-33.	-15.	-36.	115.	-10.	0.17	24.	22.	20.	-1.
28692	GTS0AD	DISTIL	-0.164	0.139	-0.164	0.187	0.13	35.	57.	7.	50.	78.	3.	0.71	9.	0.	-5.	-2.
28692	GTS0AD	DISTIL	-0.260	0.139	-0.260	0.377	0.31	-3.	41.	7.	71.	163.	11.	0.68	23.	18.	20.	-3.
28692	GTRA08	DISTIL	0.	-0.033	0.	0.015	0.08	2.	35.	4.	17.	61.	7.	0.47	8.	0.	8.	-2.
28692	GTRA08	DISTIL	0.	-0.446	0.	0.207	0.26	-185.	-81.	-3.	25.	276.	36.	0.45	45.	57.	35.	-10.
28692	GTRA12	DISTIL	0.	-0.031	0.	0.017	0.09	2.	36.	4.	18.	62.	7.	0.47	8.	0.	7.	-2.
28692	GTRA12	DISTIL	0.	-0.362	0.	0.199	0.28	-152.	-58.	-2.	29.	249.	32.	0.47	39.	46.	34.	-8.
28692	GTRA16	DISTIL	0.	-0.030	0.	0.018	0.10	2.	36.	4.	18.	62.	7.	0.47	8.	0.	7.	-2.
28692	GTRA16	DISTIL	0.	-0.300	0.	0.179	0.29	-127.	-40.	-1.	27.	222.	28.	0.47	33.	40.	33.	-7.
28692	GTR208	DISTIL	0.	-0.029	0.	0.019	0.10	2.	36.	4.	17.	63.	7.	0.47	8.	0.	3.	-2.
28692	GTR208	DISTIL	0.	-0.211	0.	0.139	0.28	-91.	-15.	1.	21.	177.	22.	0.47	28.	28.	29.	-5.
28692	GTR212	DISTIL	0.	-0.029	0.	0.019	0.10	2.	36.	4.	18.	63.	7.	0.47	8.	0.	4.	-2.
28692	GTR212	DISTIL	0.	-0.228	0.	0.151	0.29	-98.	-20.	1.	24.	187.	23.	0.48	29.	31.	30.	-5.
28692	GTR216	DISTIL	0.	-0.029	0.	0.019	0.10	2.	36.	4.	18.	63.	7.	0.48	8.	0.	5.	-2.
28692	GTR216	DISTIL	0.	-0.235	0.	0.159	0.30	-101.	-22.	1.	26.	194.	24.	0.48	29.	32.	30.	-5.
28692	GTRW08	DISTIL	0.	-0.035	0.	0.014	0.07	1.	35.	4.	17.	61.	7.	0.46	8.	0.	10.	-2.
28692	GTRW08	DISTIL	0.	-0.520	0.	0.203	0.24	-215.	-102.	-4.	18.	293.	39.	0.43	51.	63.	36.	-12.
28692	GTRW12	DISTIL	0.	-0.032	0.	0.016	0.09	2.	35.	4.	18.	62.	7.	0.47	8.	0.	8.	-2.
28692	GTRW12	DISTIL	0.	-0.439	0.	0.219	0.27	-183.	-79.	-3.	29.	281.	36.	0.46	47.	57.	34.	-10.
28692	GTRW16	DISTIL	0.	-0.031	0.	0.017	0.09	2.	36.	4.	18.	62.	7.	0.47	8.	0.	8.	-2.
28692	GTRW16	DISTIL	0.	-0.357	0.	0.197	0.28	-150.	-56.	-1.	28.	247.	31.	0.47	39.	47.	33.	-8.
28692	GTR308	DISTIL	0.	-0.035	0.	0.013	0.07	0.	34.	4.	16.	61.	7.	0.45	8.	0.	9.	-2.
28692	GTR308	DISTIL	0.	-0.351	0.	0.124	0.20	-148.	-55.	-1.	5.	206.	27.	0.41	36.	40.	36.	-9.
28692	GTR312	DISTIL	0.	-0.029	0.	0.019	0.10	2.	36.	4.	18.	63.	7.	0.47	8.	0.	4.	-2.
28692	GTR312	DISTIL	0.	-0.254	0.	0.166	0.30	-108.	-27.	0.	27.	203.	25.	0.48	33.	35.	30.	-6.
28692	GTR316	DISTIL	0.	-0.029	0.	0.019	0.10	2.	36.	4.	18.	62.	7.	0.47	8.	0.	6.	-2.
28692	GTR316	DISTIL	0.	-0.249	0.	0.162	0.30	-106.	-26.	0.	26.	199.	25.	0.48	31.	34.	30.	-6.
28692	FCPADS	DISTIL	0.	-0.032	0.	0.016	0.08	11.	47.	5.	26.	73.	8.	0.56	8.	0.	19.	-3.
28692	FCPADS	DISTIL	0.	-0.558	0.	0.270	0.28	-87.	84.	7.	179.	536.	56.	0.85	34.	73.	5[illegible]	-24.
28692	FCMCDS	DISTIL	0.	-0.027	0.	0.021	0.11	-9.	[illegible]	4.	6.	73.	7.	0.47	8.	0.	[illegible]	-3.
28692	FCMC[illegible]	DISTIL	0.	-0.369	0.	0.286	0.36	-335.	[illegible]	-1.	-125.	441.	38.	0.47	25.	57.	4o.	-16.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28693	STM141	RESIDU	0.	-0.011	0.	0.019	0.06	-4.	54.	-1.	3.	61.	-11.	0.17	12.	0.	-69.	-2.
28693	STM141	RESIDU	0.	-0.059	0.	0.098	0.22	-21.	35.	-3.	27.	110.	-8.	0.30	22.	12.	-1.	-1.
28693	STM141	COAL-F	0.	-0.011	0.	0.019	0.06	-4.	-7.	-1.	6.	10.	1.	0.05	-3.	0.	71.	-0.
28693	STM141	COAL-F	0.	-0.059	0.	0.098	0.22	-21.	-35.	-3.	30.	50.	6.	0.20	9.	12.	19.	2.
28693	STM141	COAL-A	0.	-0.011	0.	0.019	0.06	61.	-7.	-1.	71.	10.	1.	0.26	-1.	0.	55.	-0.
28693	STM141	COAL-A	0.	-0.059	0.	0.098	0.22	55.	-35.	-3.	105.	50.	6.	0.37	17.	12.	6.	3.
28693	STM088	RESIDU	0.	-0.011	0.	0.019	0.06	-4.	54.	-1.	3.	61.	-11.	0.17	13.	0.	-80.	-2.
28693	STM088	RESIDU	0.	-0.041	0.	0.068	0.17	-14.	42.	-2.	18.	92.	-9.	0.26	19.	7.	-10.	-2.
28693	STM088	COAL-F	0.	-0.011	0.	0.019	0.06	-4.	-7.	-1.	6.	10.	1.	0.05	-3.	0.	73.	-0.
28693	STM088	COAL-F	0.	-0.041	0.	0.068	0.17	-14.	-25.	-2.	21.	35.	4.	0.15	6.	7.	19.	1.
28693	STM088	COAL-A	0.	-0.011	0.	0.019	0.06	61.	-7.	-1.	71.	10.	1.	0.26	-1.	0.	55.	-0.
28693	STM088	COAL-A	0.	-0.041	0.	0.068	0.17	57.	-25.	-2.	93.	33.	4.	0.34	14.	7.	2.	2.
28693	PFBSTM	COAL-P	0.	-0.012	0.	0.018	0.06	62.	-7.	-0.	72.	9.	2.	0.26	-2.	0.	65.	-0.
28693	PFBSTM	COAL-P	0.	-0.105	0.	0.162	0.29	73.	-63.	9.	158.	83.	24.	0.49	13.	22.	23.	1.
28693	TISTMT	RESIDU	0.	-0.012	0.	0.019	0.06	-4.	54.	-1.	3.	61.	-11.	0.17	1.	0.	24.	-4.
28693	TISTMT	RESIDU	0.	-0.126	0.	0.199	0.32	-44.	8.	-6.	57.	173.	-4.	0.38	-28.	28.	58.	-9.
28693	TISTMT	COAL	0.	-0.012	0.	0.019	0.06	-4.	-7.	-1.	6.	10.	1.	0.05	-11.	0.	137.	-1.
28693	TISTMT	COAL	0.	-0.140	0.	0.221	0.34	-49.	-84.	-7.	67.	113.	14.	0.31	-52.	31.	69.	-6.
28693	TIHRSG	RESIDU	0.	-0.017	0.	0.014	0.04	-6.	52.	-1.	2.	59.	-11.	0.15	-2.	0.	49.	-4.
28693	TIHRSG	RESIDU	0.	-0.093	0.	0.077	0.17	-32.	22.	-5.	19.	103.	-10.	0.25	-34.	13.	91.	-10.
28693	TIHRSG	COAL	0.	-0.017	0.	0.014	0.04	-6.	-10.	-1.	4.	7.	1.	0.04	-18.	0.	195.	-2.
28693	TIHRSG	COAL	0.	-0.103	0.	0.085	0.18	-36.	-62.	-5.	25.	41.	6.	0.15	-58.	15.	113.	-8.
28693	STIRL	DISTIL	0.	-0.017	0.	0.013	0.04	31.	88.	9.	41.	105.	11.	0.49	7.	0.	-24.	-6.
28693	STIRL	DISTIL	0.	-0.229	0.	0.182	0.26	-17.	29.	6.	115.	253.	30.	0.59	24.	36.	32.	-9.
28693	STIRL	RESIDU	0.	-0.017	0.	0.013	0.04	-6.	52.	-1.	2.	59.	-12.	0.15	7.	0.	-28.	-3.
28693	STIRL	RESIDU	0.	-0.229	0.	0.182	0.26	-80.	-33.	-24.	48.	176.	-21.	0.30	24.	36.	28.	-5.
28693	STIRL	COAL	0.	-0.017	0.	0.013	0.04	-6.	-10.	-1.	4.	6.	1.	0.04	-3.	0.	71.	-0.
28693	STIRL	COAL	0.	-0.254	0.	0.202	0.27	-89.	-153.	-13.	58.	97.	14.	0.24	-3.	40.	37.	-1.
28693	HEGT85	COAL-A	0.	-0.026	0.	0.004	0.01	59.	-16.	-1.	69.	1.	0.	0.22	-7.	0.	106.	-1.
28693	HEGT85	COAL-A	0.	-2.013	0.	0.333	0.13	-316.	-1208.	-101.	439.	75.	38.	0.22	-24.	217.	45.	-27.
28693	HEGT60	COAL-A	0.	-0.025	0.	0.006	0.02	59.	-15.	-1.	69.	2.	1.	0.22	-7.	0.	102.	-1.
28693	HEGT60	COAL-A	0.	-0.626	0.	0.144	0.14	-64.	-376.	-31.	183.	45.	14.	0.24	-25.	69.	50.	-10.
28693	HEGT00	COAL-A	0.	-0.023	0.	0.007	0.02	59.	-14.	-1.	68.	3.	1.	0.22	-6.	0.	99.	-1.
28693	HEGT00	COAL-A	0.	-0.241	0.	0.071	0.12	6.	-144.	-12.	106.	26.	6.	0.24	-14.	26.	52.	-4.
28693	FCMCCL	COAL	0.	-0.291	0.	0.264	0.31	102.	175.	13.	281.	479.	46.	1.00	-4.	49.	39.	-3.
28693	FCSTCL	COAL	0.	-0.394	0.	0.414	0.38	102.	175.	13.	362.	617.	61.	1.00	5.	73.	35.	-2.
28693	TGGTST	COAL	0.	-0.347	0.	0.209	0.25	-122.	-208.	11.	57.	96.	44.	0.24	3.	49.	35.	-2.
28693	GTSOAR	RESIDU	-0.310	0.293	-0.310	0.323	0.04	68.	59.	12.	78.	76.	14.	0.52	8.	0.	-37.	-3.
28693	GTSOAR	RESIDU	-0.587	0.293	-0.587	0.825	0.29	-40.	-45.	10.	131.	246.	41.	0.53	45.	47.	21.	-4.
28693	GTAC08	RESIDU	0.	-0.014	0.	0.016	0.05	-6.	53.	-1.	2.	60.	-11.	0.16	9.	0.	-43.	-3.
28693	GTAC08	RESIDU	0.	-0.191	0.	0.217	0.31	-180.	-18.	-21.	-52.	191.	-17.	0.18	39.	35.	15.	-2.
28693	GTAC12	RESIDU	0.	-0.014	0.	0.016	0.05	-5.	53.	-1.	2.	60.	-11.	0.16	9.	0.	-44.	-3.
28693	GTAC12	RESIDU	0.	-0.243	0.	0.268	0.33	-211.	-39.	-26.	-51.	225.	-17.	0.20	45.	45.	18.	-2.
28693	GTAC16	RESIDU	0.	-0.015	0.	0.016	0.05	-5.	53.	-1.	2.	60.	-11.	0.16	9.	0.	-42.	-3.
28693	GTAC16	RESIDU	0.	-0.283	0.	0.298	0.34	-235.	-55.	-29.	-52.	246.	-17.	0.21	48.	52.	20.	-2.
28693	GTWC16	RESIDU	0.	-0.016	0.	0.014	0.04	-6.	52.	-1.	2.	59.	-11.	0.16	8.	0.	-38.	-3.

ISE PE0 AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS	FUEL SAVINGS DIRECT		FUEL SAVINGS TOTAL		FESR	EMISSIONS SAVINGS DIRECT			EMISSIONS SAVINGS TOTAL			EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
		FUEL	OIL+GAS	COAL	OIL+GAS	COAL		NOX	SOX	PART	NOX	SOX	PART					
28693	GTWC16	RESIDU	0.	-0.322	0.	0.283	0.32	-258.	-70.	-32.	-68.	242.	-20.	0.18	51.	54.	21.	-3.
28693	CC1626	RESIDU	0.	-0.016	0.	0.014	0.04	-6.	52.	-1.	2.	59.	-11.	0.15	9.	0.	-38.	-3.
28693	CC1626	RESIDU	0.	-0.497	0.	0.422	0.35	-363.	-140.	-45.	-73.	339.	-22.	0.21	72.	83.	23.	-4.
28693	CC1622	RESIDU	0.	-0.016	0.	0.015	0.05	-5.	52.	-1.	2.	60.	-11.	0.16	9.	0.	-40.	-3.
28693	CC1622	RESIDU	0.	-0.428	0.	0.398	0.36	-322.	-112.	-40.	-61.	318.	-20.	0.22	64.	75.	22.	-4.
28693	CC1222	RESIDU	0.	-0.016	0.	0.015	0.05	-5.	52.	-1.	2.	60.	-11.	0.16	9.	0.	-42.	-3.
28693	CC1222	RESIDU	0.	-0.421	0.	0.400	0.36	-318.	-110.	-39.	-59.	318.	-19.	0.23	65.	74.	22.	-3.
28693	CC0822	RESIDU	0.	-0.014	0.	0.016	0.05	-5.	53.	-1.	2.	60.	-11.	0.16	9.	0.	-41.	-3.
28693	CC0822	RESIDU	0.	-0.311	0.	0.339	0.36	-251.	-66.	-31.	-47.	272.	-16.	0.23	55.	58.	19.	-2.
28693	STIG15	RESIDU	0.	-0.025	0.	0.005	0.02	-9.	49.	-1.	-1.	56.	-12.	0.13	9.	0.	-30.	-3.
28693	STIG15	RESIDU	0.	-18.850	0.	3.942	0.17	-11375.	-7481.	-560.	-4186.	4409.	23.	0.01	1516.	2135.	37.	-303.
28693	STIG10	RESIDU	0.	-0.023	0.	0.008	0.02	-8.	49.	-1.	-1.	57.	-12.	0.14	9.	0.	-34.	-3.
28693	STIG10	RESIDU	0.	-1.585	0.	0.522	0.22	-1016.	-576.	-42.	-352.	521.	7.	0.08	147.	195.	33.	-24.
28693	STIG1S	RESIDU	0.	-0.022	0.	0.009	0.03	-8.	50.	-1.	-0.	57.	-12.	0.14	9.	0.	-36.	-3.
28693	STIG1S	RESIDU	0.	-0.888	0.	0.349	0.23	-598.	-297.	-21.	-209.	344.	5.	0.10	93.	113.	31.	-13.
28693	DEADV3	RESIDU	0.	-0.020	0.	0.010	0.03	-7.	51.	-1.	0.	58.	-12.	0.15	6.	0.	-10.	-3.
28693	DEADV3	RESIDU	0.	-0.921	0.	0.486	0.29	-1031.	-310.	-77.	-588.	423.	-43.	-0.13	45.	129.	39.	-19.
28693	DEHTPM	RESIDU	0.	-0.015	0.	0.016	0.05	-5.	53.	-1.	2.	60.	-11.	0.16	5.	0.	-13.	-3.
28693	DEHTPM	RESIDU	0.	-0.288	0.	0.305	0.34	-430.	-57.	-29.	-243.	251.	-17.	-0.01	22.	53.	31.	-6.
28693	DESOA3	DISTIL	-0.314	0.293	-0.314	0.323	0.03	95.	125.	15.	102.	132.	4.	0.74	7.	0.	-10.	-6.
28693	DESOA3	DISTIL	-1.455	0.293	-1.455	1.935	0.25	-2602.	-61.	15.	-2085.	793.	54.	-0.68	19.	151.	51.	-41.
28693	DESOA3	RESIDU	-0.314	0.293	-0.314	0.323	0.03	68.	57.	12.	78.	74.	14.	0.52	7.	0.	-16.	-3.
28693	DESOA3	RESIDU	-1.455	0.293	-1.455	1.935	0.25	-5664.	-372.	3.	-5136.	526.	100.	-2.48	19.	151.	46.	-29.
28693	GTSOAD	DISTIL	-0.308	0.293	-0.308	0.323	0.05	95.	126.	15.	102.	133.	4.	0.75	9.	0.	-40.	-5.
28693	GTSOAD	DISTIL	-0.540	0.293	-0.540	0.786	0.31	0.	88.	15.	155.	341.	22.	0.69	46.	43.	21.	-7.
28693	GTRA08	DISTIL	0.	-0.016	0.	0.014	0.04	31.	89.	9.	41.	105.	11.	0.49	8.	0.	-32.	-5.
28693	GTRA08	DISTIL	0.	-0.447	0.	0.378	0.34	-188.	-33.	2.	78.	419.	51.	0.52	60.	75.	28.	-11.
28693	GTRA12	DISTIL	0.	-0.016	0.	0.014	0.04	31.	89.	9.	41.	105.	11.	0.49	8.	0.	-33.	-5.
28693	GTRA12	DISTIL	0.	-0.426	0.	0.378	0.34	-180.	-27.	2.	79.	413.	50.	0.52	60.	73.	27.	-10.
28693	GTRA16	DISTIL	0.	-0.016	0.	0.014	0.04	31.	89.	9.	41.	105.	11.	0.49	8.	0.	-32.	-5.
28693	GTRA16	DISTIL	0.	-0.394	0.	0.355	0.34	-167.	-18.	3.	74.	392.	47.	0.52	55.	67.	28.	-10.
28693	GTR208	DISTIL	0.	-0.016	0.	0.014	0.04	31.	89.	9.	41.	105.	11.	0.49	8.	0.	-35.	-5.
28693	GTR208	DISTIL	0.	-0.326	0.	0.293	0.32	-140.	1.	4.	60.	340.	41.	0.51	51.	55.	25.	-8.
28693	GTR212	DISTIL	0.	-0.016	0.	0.014	0.04	31.	89.	9.	41.	105.	11.	0.49	8.	0.	-34.	-5.
28693	GTR212	DISTIL	0.	-0.351	0.	0.313	0.33	-149.	-6.	4.	64.	357.	43.	0.51	53.	59.	26.	-9.
28693	GTR216	DISTIL	0.	-0.016	0.	0.015	0.05	32.	89.	9.	41.	105.	11.	0.49	8.	0.	-34.	-5.
28693	GTR216	DISTIL	0.	-0.354	0.	0.327	0.34	-151.	-6.	4.	68.	366.	44.	0.52	52.	61.	26.	-9.
28693	GTRW08	DISTIL	0.	-0.019	0.	0.012	0.04	31.	88.	9.	41.	105.	11.	0.49	8.	0.	-28.	-6.
28693	GTRW08	DISTIL	0.	-0.604	0.	0.380	0.30	-251.	-77.	-1.	66.	461.	58.	0.48	76.	89.	31.	-14.
28693	GTRW12	DISTIL	0.	-0.018	0.	0.013	0.04	31.	88.	9.	41.	105.	11.	0.49	8.	0.	-30.	-6.
28693	GTRW12	DISTIL	0.	-0.585	0.	0.413	0.32	-243.	-71.	-0.	78.	475.	59.	0.50	77.	91.	29.	-13.
28693	GTRW16	DISTIL	0.	-0.018	0.	0.013	0.04	31.	88.	9.	41.	105.	11.	0.49	8.	0.	-29.	-6.
28693	GTRW16	DISTIL	0.	-0.535	0.	0.388	0.32	-223.	-57.	1.	74.	448.	55.	0.50	70.	84.	29.	-12.
28693	GTR308	DISTIL	0.	-0.019	0.	0.011	0.03	31.	88.	9.	40.	104.	11.	0.49	8.	0.	-2[illegible]	-6.
28693	GTR308	DISTIL	0.	-0.483	0.	0.269	0.26	-202.	[illegible]	1.	39.	368.	46.	0.46	60.	68.	[illegible]	-13.
28693	GTR[illegible]	DISTIL	0.	-0.017	0.	0.013	0.04	31.	[illegible]	9.	41.	105.	11.	0.49	8.	0.	-3[illegible]	-5.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28693	GTR312	DISTIL	0.	-0.458	0.	0.344	0.31	-192.	-36.	2.	66.	403.	49.	0.50	65.	72.	28.	-11.
28693	GTR316	DISTIL	0.	-0.017	0.	0.013	0.04	31.	88.	9.	41.	105.	11.	0.49	8.	0.	-30.	-5.
28693	GTR316	DISTIL	0.	-0.453	0.	0.337	0.31	-190.	-34.	2.	64.	398.	49.	0.50	62.	71.	28.	-11.
28693	FCPADS	DISTIL	0.	-0.020	0.	0.010	0.03	30.	87.	9.	40.	104.	11.	0.48	7.	0.	-10.	-6.
28693	FCPADS	DISTIL	0.	-1.171	0.	0.567	0.28	-184.	167.	14.	375.	1117.	117.	0.84	67.	160.	54.	-52.
28693	FCMCDS	DISTIL	0.	-0.017	0.	0.013	0.04	31.	88.	9.	41.	105.	11.	0.49	7.	0.	-14.	-6.
28693	FCMCDS	DISTIL	0.	-0.775	0.	0.600	0.36	-687.	165.	-1.	-244.	917.	80.	0.48	49.	126.	49.	-35.
28694	STM141	RESIDU	0.	-0.010	0.	0.017	0.05	-4.	59.	-1.	3.	64.	-12.	0.16	13.	0.	-86.	-3.
28694	STM141	RESIDU	0.	-0.037	0.	0.060	0.15	-13.	49.	-2.	16.	91.	-10.	0.24	19.	6.	-16.	-2.
28694	STM141	COAL-F	0.	-0.010	0.	0.017	0.05	-4.	-6.	-1.	5.	9.	1.	0.04	-4.	0.	86.	-1.
28694	STM141	COAL-F	0.	-0.037	0.	0.060	0.15	-13.	-22.	-2.	18.	31.	4.	0.13	5.	6.	21.	1.
28694	STM141	COAL-A	0.	-0.010	0.	0.017	0.05	67.	-6.	-1.	75.	9.	1.	0.25	-1.	0.	59.	-0.
28694	STM141	COAL-A	0.	-0.037	0.	0.060	0.15	63.	-22.	-2.	94.	31.	4.	0.32	14.	6.	-2.	2.
28694	PFBSTM	COAL-P	0.	-0.011	0.	0.016	0.05	67.	-7.	-0.	76.	8.	1.	0.25	-3.	0.	73.	-0.
28694	PFBSTM	COAL-P	0.	-0.088	0.	0.129	0.24	80.	-53.	10.	150.	66.	23.	0.46	10.	18.	25.	1.
28694	TISTMT	RESIDU	0.	-0.011	0.	0.017	0.05	-4.	59.	-1.	3.	64.	-12.	0.16	1.	0.	21.	-4.
28694	TISTMT	RESIDU	0.	-0.103	0.	0.162	0.28	-36.	22.	-5.	46.	154.	-6.	0.35	-31.	22.	66.	-10.
28694	TISTMT	COAL	0.	-0.011	0.	0.017	0.05	-4.	-6.	-1.	5.	9.	1.	0.04	-12.	0.	157.	-2.
28694	TISTMT	COAL	0.	-0.122	0.	0.191	0.30	-43.	-73.	-6.	58.	98.	12.	0.28	-58.	27.	79.	-7.
28694	TIHRSG	RESIDU	0.	-0.018	0.	0.010	0.03	-6.	56.	-1.	0.	61.	-13.	0.14	-3.	0.	59.	-5.
28694	TIHRSG	RESIDU	0.	-0.124	0.	0.069	0.14	-43.	14.	-6.	16.	106.	-12.	0.22	-38.	16.	94.	-12.
28694	TIHRSG	COAL	0.	-0.018	0.	0.010	0.03	-6.	-11.	-1.	3.	5.	1.	0.02	-17.	0.	201.	-2.
28694	TIHRSG	COAL	0.	-0.146	0.	0.082	0.15	-51.	-88.	-7.	22.	37.	6.	0.12	-67.	19.	112.	-10.
28694	STIRL	DISTIL	0.	-0.016	0.	0.012	0.03	34.	96.	10.	43.	111.	12.	0.49	8.	0.	-35.	-6.
28694	STIRL	DISTIL	0.	-0.220	0.	0.161	0.23	-13.	39.	7.	110.	247.	29.	0.58	22.	33.	33.	-10.
28694	STIRL	RESIDU	0.	-0.016	0.	0.012	0.03	-6.	57.	-1.	1.	62.	-12.	0.15	8.	0.	-40.	-3.
28694	STIRL	RESIDU	0.	-0.220	0.	0.161	0.23	-77.	-25.	-24.	42.	167.	-23.	0.28	22.	33.	29.	-6.
28694	STIRL	COAL	0.	-0.016	0.	0.012	0.03	-6.	-10.	-1.	3.	6.	1.	0.03	-4.	0.	80.	-0.
28694	STIRL	COAL	0.	-0.259	0.	0.189	0.25	-91.	-155.	-13.	54.	90.	14.	0.21	-6.	39.	40.	-2.
28694	HEGT60	COAL-A	0.	-0.027	0.	0.001	0.00	64.	-16.	-1.	73.	-1.	0.	0.21	-6.	0.	106.	-1.
28694	HEGT60	COAL-A	0.	-1.314	0.	0.050	0.03	-185.	-788.	-66.	254.	-42.	15.	0.14	-27.	125.	50.	-20.
28694	HEGT00	COAL-A	0.	-0.023	0.	0.005	0.01	65.	-14.	-1.	74.	2.	1.	0.22	-6.	0.	100.	-1.
28694	HEGT00	COAL-A	0.	-0.303	0.	0.068	0.10	-2.	-182.	-15.	118.	21.	7.	0.22	-15.	32.	52.	-5.
28694	FCMCCL	COAL	0.	-0.355	0.	0.282	0.30	110.	189.	14.	315.	538.	52.	1.00	-2.	57.	39.	-4.
28694	FCSTCL	COAL	0.	-0.415	0.	0.377	0.34	110.	189.	14.	365.	623.	61.	1.00	3.	72.	36.	-3.
28694	IGGTST	COAL	0.	-0.364	0.	0.157	0.19	-127.	-218.	12.	40.	67.	43.	0.19	0.	46.	38.	-3.
28694	GTSOAR	RESIDU	-0.332	0.316	-0.332	0.344	0.03	74.	64.	13.	83.	80.	15.	0.52	9.	0.	-52.	-3.
28694	GTSOAR	RESIDU	-0.683	0.316	-0.683	0.935	0.27	-52.	-68.	10.	147.	271.	47.	0.52	49.	55.	24.	-5.
28694	GTAC08	RESIDU	0.	-0.013	0.	0.015	0.04	-5.	58.	-1.	2.	63.	-12.	0.16	10.	0.	-60.	-3.
28694	GTAC08	RESIDU	0.	-0.205	0.	0.235	0.31	-188.	-19.	-23.	-50.	206.	-17.	0.19	42.	39.	15.	-2.
28694	GTAC12	RESIDU	0.	-0.013	0.	0.015	0.04	-5.	58.	-1.	2.	63.	-12.	0.15	10.	0.	-60.	-3.
28694	GTAC12	RESIDU	0.	-0.264	0.	0.289	0.33	-224.	-43.	-27.	-50.	243.	-18.	0.21	48.	49.	18.	-2.
28694	GTAC16	RESIDU	0.	-0.014	0.	0.014	0.04	-5.	58.	-1.	2.	63.	-12.	0.15	10.	0.	-59.	-3.
28694	GTAC16	RESIDU	0.	-0.319	0.	0.322	0.34	-257.	-64.	-31.	-55.	267.	-19.	0.21	53.	58.	20.	-3.
28694	GTWC16	RESIDU	0.	-0.015	0.	0.013	0.04	-5.	57.	-1.	1.	63.	-12.	0.15	9.	0.	-55.	-3.
28694	GTWC16	RESIDU	0.	-0.347	0.	0.306	0.32	-273.	-75.	-33.	-68.	261.	-21.	0.19	55.	59.	21.	-3.

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	********TOTAL******** NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28694	DEHTPM	RESIDU	0.	-0.015	0.	0.012	0.04	-5.	57.	-1.	1.	62.	-12.	0.15	6.	0.	-20.	-4.
28694	DEHTPM	RESIDU	0.	-0.310	0.	0.250	0.29	-450.	-61.	-31.	-275.	227.	-22.	-0.08	16.	50.	36.	-8.
28694	GTSOAD	DISTIL	-0.330	0.316	-0.330	0.344	0.04	102.	136.	16.	109.	141.	4.	0.74	10.	0.	-56.	-6.
28694	GTSOAD	DISTIL	-0.591	0.316	-0.591	0.856	0.31	2.	94.	16.	171.	371.	24.	0.69	50.	48.	22.	-7.
28694	GTRA08	DISTIL	0.	-0.016	0.	0.011	0.03	34.	96.	10.	43.	111.	12.	0.49	9.	0.	-47.	-6.
28694	GTRA08	DISTIL	0.	-0.608	0.	0.423	0.31	-250.	-71.	0.	82.	493.	61.	0.50	75.	94.	31.	-15.
28694	GTRA12	DISTIL	0.	-0.016	0.	0.012	0.03	34.	96.	10.	43.	111.	12.	0.49	9.	0.	-48.	-6.
28694	GTRA12	DISTIL	0.	-0.556	0.	0.420	0.32	-229.	-56.	1.	85.	478.	59.	0.51	70.	89.	30.	-13.
28694	GTRA16	DISTIL	0.	-0.016	0.	0.012	0.04	34.	96.	10.	43.	111.	12.	0.49	9.	0.	-47.	-6.
28694	GTRA16	DISTIL	0.	-0.499	0.	0.390	0.32	-206.	-40.	2.	80.	446.	55.	0.51	62.	81.	30.	-13.
28694	GTR208	DISTIL	0.	-0.015	0.	0.012	0.04	34.	96.	10.	43.	112.	12.	0.49	9.	0.	-50.	-6.
28694	GTR208	DISTIL	0.	-0.395	0.	0.316	0.31	-164.	-10.	4.	64.	378.	46.	0.50	56.	64.	28.	-10.
28694	GTR212	DISTIL	0.	-0.015	0.	0.012	0.04	34.	96.	10.	43.	112.	12.	0.49	9.	0.	-50.	-6.
28694	GTR212	DISTIL	0.	-0.424	0.	0.339	0.31	-176.	-19.	3.	70.	399.	48.	0.50	58.	69.	28.	-11.
28694	GTR216	DISTIL	0.	-0.015	0.	0.013	0.04	34.	96.	10.	43.	112.	12.	0.49	9.	0.	-49.	-6.
28694	GTR216	DISTIL	0.	-0.430	0.	0.356	0.32	-178.	-20.	3.	74.	409.	50.	0.51	57.	71.	29.	-11.
28694	GTRW08	DISTIL	0.	-0.018	0.	0.010	0.03	34.	96.	10.	43.	111.	12.	0.48	9.	0.	-44.	-6.
28694	GTRW08	DISTIL	0.	-0.786	0.	0.423	0.28	-321.	-120.	-3.	68.	540.	69.	0.47	90.	111.	33.	-19.
28694	GTRW12	DISTIL	0.	-0.017	0.	0.011	0.03	34.	96.	10.	43.	111.	12.	0.48	9.	0.	-45.	-6.
28694	GTRW12	DISTIL	0.	-0.733	0.	0.460	0.30	-300.	-106.	-2.	84.	547.	69.	0.49	89.	109.	31.	-17.
28694	GTRW16	DISTIL	0.	-0.017	0.	0.011	0.03	34.	96.	10.	43.	111.	12.	0.49	9.	0.	-44.	-6.
28694	GTRW16	DISTIL	0.	-0.649	0.	0.428	0.31	-266.	-82.	-1.	80.	507.	63.	0.49	80.	98.	31.	-15.
28694	GTR308	DISTIL	0.	-0.019	0.	0.009	0.03	34.	95.	10.	43.	111.	12.	0.48	9.	0.	-45.	-6.
28694	GTR308	DISTIL	0.	-0.615	0.	0.287	0.24	-252.	-72.	-0.	38.	421.	53.	0.44	72.	82.	33.	-16.
28694	GTR312	DISTIL	0.	-0.016	0.	0.012	0.03	34.	96.	10.	43.	111.	12.	0.49	9.	0.	-48.	-6.
28694	GTR312	DISTIL	0.	-0.526	0.	0.374	0.31	-217.	-47.	1.	73.	445.	55.	0.50	70.	82.	29.	-13.
28694	GTR316	DISTIL	0.	-0.016	0.	0.011	0.03	34.	96.	10.	43.	111.	12.	0.49	9.	0.	-46.	-6.
28694	GTR316	DISTIL	0.	-0.518	0.	0.366	0.30	-214.	-45.	2.	71.	438.	54.	0.50	68.	80.	29.	-13.
28694	FCPADS	DISTIL	0.	-0.019	0.	0.009	0.03	34.	95.	10.	43.	111.	12.	0.48	8.	0.	-24.	-6.
28694	FCPADS	DISTIL	0.	-1.264	0.	0.612	0.28	-199.	174.	15.	404.	1200.	126.	0.84	72.	173.	54.	-56.
28694	FCMCDS	DISTIL	0.	-0.016	0.	0.012	0.04	34.	96.	10.	43.	111.	12.	0.49	8.	0.	-29.	-6.
28694	FCMCDS	DISTIL	0.	-0.837	0.	0.647	0.36	-730.	172.	-2.	-253.	984.	86.	0.48	52.	137.	49.	-38.
28731	PFBSTM	COAL-P	0.	-0.014	0.	0.017	0.03	141.	-8.	3.	151.	9.	5.	0.25	5.	0.	15.	0.
28731	PFBSTM	COAL-P	0.	-0.090	0.	0.110	0.13	167.	-54.	21.	231.	55.	33.	0.39	17.	16.	17.	1.
28731	TIHRSG	RESIDU	0.	-0.026	0.	0.006	0.01	-9.	116.	-1.	-4.	114.	-26.	0.13	10.	0.	-48.	-8.
28731	TIHRSG	RESIDU	0.	-0.357	0.	0.078	0.07	-125.	-16.	-18.	8.	192.	-32.	0.18	-58.	38.	82.	-25.
28731	TIHRSG	COAL	0.	-0.026	0.	0.006	0.01	-9.	-15.	-1.	1.	2.	1.	0.01	-17.	0.	184.	-2.
28731	TIHRSG	COAL	0.	-0.357	0.	0.078	0.07	-125.	-214.	-18.	15.	24.	8.	0.05	-95.	38.	95.	-16.
28731	HEGTOO	COAL-A	0.	-0.027	0.	0.004	0.01	130.	-16.	-1.	140.	1.	1.	0.21	-5.	0.	86.	-1.
28731	HEGTOO	COAL-A	0.	-0.572	0.	0.091	0.07	3.	-343.	-29.	216.	19.	11.	0.20	-7.	59.	44.	-7.
28731	FCMCCL	COAL	0.	-0.015	0.	0.016	0.02	6.	11.	1.	16.	28.	3.	0.07	-11.	0.	127.	-1.
28731	FCMCCL	COAL	0.	-0.519	0.	0.575	0.33	221.	379.	29.	573.	977.	94.	1.00	15.	100.	31.	-1.
28731	GTSOAR	RESIDU	-0.653	0.632	-0.653	0.664	0.02	145.	134.	26.	155.	151.	28.	0.50	18.	0.	-119.	-7.
28731	GTSOAR	RESIDU	-1.590	0.632	-1.590	2.073	0.23	-176.	-219.	19.	287.	569.	104.	0.49	107.	132.	26.	-15.
28731	GTAC08	RESIDU	0.	-0.015	0.	0.017	0.03	-14.	121	-2.	-9.	118.	-26.	0.13	19.	0.	-129.	-6.
28731	GTAC08	RESIDU	0.	-0.417	0.	0.469	0.31	-408.	-40.	-49.	-131.	412.	-38.	0.17	83.	80.	15.	-4.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	********TOTAL******** NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER--- TOTAL EXPORT MWH	COST	LAEC SAVED
28731	GTAC12	RESIDU	0.	-0.015	0.	0.017	0.03	-13.	121.	-2.	-8.	118.	-26.	0.13	19.	0.	-130.	-6.
28731	GTAC12	RESIDU	0.	-0.512	0.	0.579	0.34	-465.	-78.	-56.	-123.	484.	-37.	0.20	94.	99.	16.	-4.
28731	GTAC16	RESIDU	0.	-0.016	0.	0.015	0.02	-13.	120.	-2.	-8.	118.	-26.	0.13	18.	0.	-128.	-6.
28731	GTAC16	RESIDU	0.	-0.663	0.	0.645	0.33	-556.	-139.	-67.	-145.	538.	-42.	0.19	101.	120.	20.	-6.
28731	GTWC16	RESIDU	0.	-0.017	0.	0.015	0.02	-14.	120.	-2.	-9.	118.	-26.	0.13	18.	0.	-125.	-6.
28731	GTWC16	RESIDU	0.	-0.692	0.	0.612	0.32	-573.	-150.	-70.	-164.	523.	-45.	0.17	110.	119.	19.	-6.
28731	GTSOAD	DISTIL	-0.648	0.632	-0.648	0.664	0.02	199.	274.	32.	204.	272.	8.	0.73	19.	0.	-126.	-12.
28731	GTSOAD	DISTIL	-1.182	0.632	-1.182	1.711	0.31	-15.	187.	32.	323.	742.	48.	0.68	95.	98.	21.	-15.
28731	GTRA08	DISTIL	0.	-0.021	0.	0.010	0.01	66.	195.	21.	76.	213.	22.	0.47	18.	0.	-113.	-12.
28731	GTRA08	DISTIL	0.	-2.023	0.	0.939	0.26	-841.	-368.	-14.	112.	1252.	162.	0.45	192.	275.	35.	-49.
28731	GTRA12	DISTIL	0.	-0.020	0.	0.011	0.02	66.	196.	21.	77.	213.	22.	0.47	18.	0.	-115.	-12.
28731	GTRA12	DISTIL	0.	-1.644	0.	0.903	0.28	-689.	-261.	-7.	130.	1131.	144.	0.47	165.	236.	33.	-40.
28731	GTRA16	DISTIL	0.	-0.020	0.	0.012	0.02	66.	196.	21.	77.	213.	22.	0.47	18.	0.	-114.	-12.
28731	GTRA16	DISTIL	0.	-1.362	0.	0.813	0.29	-576.	-182.	-2.	123.	1008.	126.	0.47	143.	201.	32.	-34.
28731	GTR208	DISTIL	0.	-0.019	0.	0.012	0.02	66.	196.	21.	76.	213.	22.	0.47	18.	0.	-118.	-12.
28731	GTR208	DISTIL	0.	-0.958	0.	0.632	0.28	-415.	-68.	5.	97.	802.	99.	0.47	117.	146.	29.	-25.
28731	GTR212	DISTIL	0.	-0.019	0.	0.012	0.02	66.	196.	21.	76.	213.	22.	0.47	18.	0.	-117.	-12.
28731	GTR212	DISTIL	0.	-1.033	0.	0.685	0.29	-445.	-89.	3.	108.	850.	105.	0.48	123.	158.	30.	-27.
28731	GTR216	DISTIL	0.	-0.019	0.	0.013	0.02	67.	196.	21.	77.	213.	22.	0.47	18.	0.	-117.	-12.
28731	GTR216	DISTIL	0.	-1.065	0.	0.723	0.30	-458.	-98.	3.	118.	879.	109.	0.48	123.	165.	30.	-27.
28731	GTRW08	DISTIL	0.	-0.023	0.	0.009	0.01	66.	195.	20.	76.	212.	22.	0.47	18.	0.	-111.	-12.
28731	GTRW08	DISTIL	0.	-2.357	0.	0.922	0.24	-975.	-462.	-19.	81.	1331.	175.	0.43	222.	305.	36.	-57.
28731	GTRW12	DISTIL	0.	-0.021	0.	0.010	0.02	66.	196.	21.	76.	213.	22.	0.47	18.	0.	-113.	-12.
28731	GTRW12	DISTIL	0.	-1.992	0.	0.993	0.27	-828.	-359.	-13.	132.	1273.	164.	0.46	211.	277.	33.	-45.
28731	GTRW16	DISTIL	0.	-0.020	0.	0.011	0.02	66.	196.	21.	77.	213.	22.	0.47	18.	0.	-112.	-12.
28731	GTRW16	DISTIL	0.	-1.619	0.	0.893	0.28	-679.	-254.	-7.	129.	1119.	142.	0.47	175.	233.	32.	-38.
28731	GTR308	DISTIL	0.	-0.023	0.	0.008	0.01	65.	195.	20.	75.	212.	22.	0.47	18.	0.	-112.	-12.
28731	GTR308	DISTIL	0.	-1.594	0.	0.563	0.20	-669.	-247.	-6.	25.	932.	121.	0.41	159.	199.	35.	-43.
28731	GTR312	DISTIL	0.	-0.019	0.	0.012	0.02	67.	196.	21.	77.	213.	22.	0.47	18.	0.	-117.	-12.
28731	GTR312	DISTIL	0.	-1.151	0.	0.755	0.30	-492.	-122.	1.	121.	920.	114.	0.48	141.	176.	29.	-28.
28731	GTR316	DISTIL	0.	-0.019	0.	0.012	0.02	67.	196.	21.	77.	213.	22.	0.47	18.	0.	-115.	-12.
28731	GTR316	DISTIL	0.	-1.127	0.	0.737	0.30	-483.	-116.	2.	117.	904.	112.	0.48	136.	172.	30.	-28.
28731	FCPADS	DISTIL	0.	-0.021	0.	0.010	0.02	72.	203.	21.	82.	220.	23.	0.49	16.	0.	-88.	-12.
28731	FCPADS	DISTIL	0.	-2.530	0.	1.225	0.28	-395.	379.	32.	813.	2433.	254.	0.85	140.	349.	53.	-110.
28731	FCMCDS	DISTIL	0.	-0.018	0.	0.014	0.02	59.	203.	21.	69.	220.	22.	0.47	16.	0.	-92.	-12.
28731	FCMCDS	DISTIL	0.	-1.675	0.	1.296	0.36	-1521.	376.	-3.	-565.	2001.	173.	0.47	103.	276.	48.	-74.
28741	STM141	RESIDU	0.	-0.013	0.	0.021	0.18	-23.	12.	-1.	-13.	28.	-3.	0.12	4.	0.	7.	-0.
28741	STM141	RESIDU	0.	-0.022	0.	0.036	0.25	-26.	8.	-1.	-8.	37.	-2.	0.22	6.	2.	7.	-0.
28741	STM141	COAL-F	0.	-0.013	0.	0.021	0.18	-23.	-8.	-1.	-12.	11.	1.	0.00	-3.	0.	64.	-0.
28741	STM141	COAL-F	0.	-0.022	0.	0.036	0.25	-26.	-13.	-1.	-7.	19.	2.	0.11	0.	2.	31.	1.
28741	STM141	COAL-A	0.	-0.013	0.	0.021	0.18	-2.	-8.	-1.	9.	11.	1.	0.22	-2.	0.	52.	0.
28741	STM141	COAL-A	0.	-0.022	0.	0.036	0.25	-3.	-13.	-1.	16.	19.	2.	0.30	3.	2.	19.	1.
28741	STM088	RESIDU	0.	-0.013	0.	0.021	0.18	-23.	12.	-1.	-13.	28.	-3.	0.12	4.	0.	4.	-0.
28741	STM088	RESIDU	0.	-0.017	0.	0.028	0.21	-24.	10.	-1.	-11.	32.	-2.	0.17	6.	1.	0.	-0.
28741	STM080	COAL-F	0.	-0.013	0.	0.021	0.18	-23.	-8.	-1.	-12.	11.	1.	0.00	-2.	0.	58.	-0.
28741	STM088	COAL-F	0.	-0.017	0.	0.028	0.21	-24.	-10.	-1.	-10.	14.	2.	0.06	0.	1.	32.	0.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS*****DIRECT		TOTAL		FESR	----EMISSIONS SAVINGS----DIRECT			TOTAL			CAPITL EMSR	ELECTRIC POWER SAVING	TOTAL EXPORT MWH	COST	LAEC SAVED
			OIL+GAS	COAL	OIL+GAS	COAL		NOX	SOX	PART	NOX	SOX	PART					
28741	STM088	COAL-A	0.	-0.013	0.	0.021	0.18	-2.	-8.	-1.	9.	11.	1.	0.22	-1.	0.	45.	0.
28741	STM088	COAL-A	0.	-0.017	0.	0.028	0.21	-2.	-10.	-1.	12.	14.	2.	0.26	2.	1.	20.	1.
28741	PFBSTM	COAL-P	0.	-0.013	0.	0.021	0.17	1.	-8.	1.	12.	11.	3.	0.26	-4.	0.	73.	-0.
28741	PFBSTM	COAL-P	0.	-0.034	0.	0.054	0.31	3.	-20.	2.	31.	28.	8.	0.45	0.	5.	34.	0.
28741	TISTMT	RESIDU	0.	-0.013	0.	0.021	0.17	-23.	12.	-1.	-13.	27.	-3.	0.12	-6.	0.	79.	-2.
28741	TISTMT	RESIDU	0.	-0.044	0.	0.071	0.35	-34.	-1.	-2.	2.	58.	-1.	0.34	-15.	8.	70.	-3.
28741	TISTMT	COAL	0.	-0.013	0.	0.021	0.17	-23.	-8.	-1.	-12.	11.	1.	-0.00	-14.	0.	143.	-2.
28741	TISTMT	COAL	0.	-0.044	0.	0.071	0.35	-34.	-27.	-2.	3.	36.	5.	0.25	-25.	8.	86.	-3.
28741	TIHRSG	RESIDU	0.	-0.018	0.	0.016	0.13	-25.	10.	-1.	-15.	25.	-3.	0.08	-12.	0.	131.	-3.
28741	TIHRSG	RESIDU	0.	-0.026	0.	0.023	0.17	-28.	7.	-1.	-13.	30.	-3.	0.13	-16.	1.	120.	-3.
28741	TIHRSG	COAL	0.	-0.018	0.	0.016	0.13	-25.	-11.	-1.	-14.	8.	1.	-0.05	-21.	0.	198.	-3.
28741	TIHRSG	COAL	0.	-0.026	0.	0.023	0.17	-28.	-16.	-1.	-12.	11.	2.	0.01	-24.	1.	159.	-3.
28741	STIRL	DISTIL	0.	-0.019	0.	0.015	0.13	-12.	22.	3.	-2.	40.	4.	0.44	4.	0.	17.	-1.
28741	STIRL	DISTIL	0.	-0.068	0.	0.054	0.26	-24.	8.	2.	16.	75.	9.	0.55	8.	8.	30.	-2.
28741	STIRL	RESIDU	0.	-0.019	0.	0.015	0.13	-25.	10.	-2.	-15.	25.	-4.	0.06	4.	0.	12.	-1.
28741	STIRL	RESIDU	0.	-0.068	0.	0.054	0.26	-42.	-10.	-7.	-4.	52.	-6.	0.23	8.	8.	25.	-1.
28741	STIRL	COAL	0.	-0.019	0.	0.015	0.13	-25.	-11.	-1.	-14.	7.	1.	-0.06	-3.	0.	66.	-0.
28741	STIRL	COAL	0.	-0.068	0.	0.054	0.26	-42.	-41.	-3.	-3.	26.	4.	0.15	0.	8.	35.	0.
28741	HEGT85	COAL-A	0.	-0.028	0.	0.006	0.05	-5.	-17.	-1.	5.	2.	1.	0.08	-11.	0.	127.	-1.
28741	HEGT85	COAL-A	0.	-0.442	0.	0.087	0.14	-84.	-265.	-22.	86.	24.	9.	0.21	-36.	46.	59.	-9.
28741	HEGT60	COAL-A	0.	-0.027	0.	0.007	0.06	-6.	-16.	-1.	5.	2.	1.	0.08	-10.	0.	122.	-1.
28741	HEGT60	COAL-A	0.	-0.155	0.	0.040	0.14	-32.	-93.	-8.	30.	14.	4.	0.19	-20.	15.	66.	-4.
28741	HEGT00	COAL-A	0.	-0.026	0.	0.008	0.07	-6.	-16.	-1.	5.	3.	1.	0.08	-9.	0.	113.	-1.
28741	HEGT00	COAL-A	0.	-0.062	0.	0.019	0.11	-15.	-37.	-3.	11.	7.	2.	0.14	-11.	4.	72.	-1.
28741	FCMCCL	COAL	0.	-0.016	0.	0.015	0.15	-11.	12.	1.	-1.	30.	3.	0.33	-9.	0.	104.	-1.
28741	FCMCCL	COAL	0.	-0.068	0.	0.078	0.34	11.	51.	4.	58.	131.	13.	1.00	-9.	11.	51.	-1.
28741	FCSTCL	COAL	0.	-0.015	0.	0.019	0.16	-14.	7.	1.	-3.	26.	3.	0.25	-8.	0.	101.	-1.
28741	FCSTCL	COAL	0.	-0.106	0.	0.133	0.41	11.	51.	4.	88.	182.	18.	1.00	-8.	19.	44.	-1.
28741	IGGTST	COAL	0.	-0.019	0.	0.015	0.13	-25.	-11.	1.	-14.	7.	3.	-0.04	-8.	0.	105.	-1.
28741	IGGTST	COAL	0.	-0.093	0.	0.076	0.30	-51.	-56.	3.	3.	37.	13.	0.24	-8.	13.	47.	-1.
28741	GTSOAR	RESIDU	-0.104	0.086	-0.104	0.119	0.13	-5.	12.	3.	6.	31.	5.	0.42	4.	0.	13.	-1.
28741	GTSOAR	RESIDU	-0.170	0.086	-0.170	0.239	0.29	-31.	-13.	3.	19.	72.	12.	0.49	11.	11.	23.	-1.
28741	GTAC08	RESIDU	0.	-0.016	0.	0.018	0.15	-34.	11.	-2.	-24.	26.	-4.	-0.02	4.	0.	6.	-0.
28741	GTAC08	RESIDU	0.	-0.056	0.	0.063	0.31	-73.	-5.	-7.	-36.	56.	-5.	0.08	10.	8.	16.	-0.
28741	GTAC12	RESIDU	0.	-0.016	0.	0.018	0.15	-33.	11.	-2.	-23.	26.	-4.	-0.00	4.	0.	6.	-0.
28741	GTAC12	RESIDU	0.	-0.071	0.	0.078	0.33	-82.	-11.	-8.	-36.	66.	-5.	0.12	12.	11.	19.	-0.
28741	GTAC16	RESIDU	0.	-0.016	0.	0.017	0.15	-32.	11.	-2.	-22.	26.	-4.	-0.00	4.	0.	7.	-0.
28741	GTAC16	RESIDU	0.	-0.082	0.	0.087	0.34	-89.	-16.	-9.	-36.	72.	-5.	0.14	13.	13.	21.	-0.
28741	GTWC16	RESIDU	0.	-0.018	0.	0.016	0.13	-33.	10.	-2.	-23.	25.	-4.	-0.02	4.	0.	11.	-1.
28741	GTWC16	RESIDU	0.	-0.094	0.	0.083	0.32	-96.	-21.	-9.	-41.	71.	-6.	0.10	13.	13.	23.	-1.
28741	CC1626	RESIDU	0.	-0.018	0.	0.016	0.13	-32.	10.	-2.	-21.	25.	-4.	-0.00	4.	0.	14.	-1.
28741	CC1626	RESIDU	0.	-0.160	0.	0.140	0.36	-135.	-47.	-14.	-41.	110.	-7.	0.18	20.	25.	25.	-1.
28741	CC1622	RESIDU	0.	-0.017	0.	0.016	0.14	-31.	10.	-2.	-21.	26.	-4.	0.01	4.	0.	11.	-1.
28741	CC1622	RESIDU	0.	-0.138	0.	0.132	0.37	-122.	-38.	-13.	-37.	103.	-6.	0.19	18.	22.	2[illegible]	-1.
28741	CC122[illegible]	RESIDU	0.	-0.017	0.	0.017	0.14	-31.		-2.	-21.	26.	-4.	0.01	4.	0.		-1.
28741	CC12	RESIDU	0.	-0.136	0.	0.133	0.37	-121.	-[illegible]	-13.	-37.	103.	-6.	0.19	19.	22.	24.	-1.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28741	CC0822	RESIDU	0.	-0.016	0.	0.018	0.15	-31.	11.	-2.	-21.	26.	-4.	0.01	4.	0.	10.	-1.
28741	CC0822	RESIDU	0.	-0.102	0.	0.114	0.38	-101.	-24.	-10.	-33.	39.	-5.	0.19	16.	17.	22.	-0.
28741	STIG15	RESIDU	0.	-0.028	0.	0.006	0.05	-35.	6.	-1.	-25.	21.	-3.	-0.08	4.	0.	23.	-1.
28741	STIG15	RESIDU	0.	-5.505	0.	1.151	0.17	-3343.	-2185.	-163.	-1243.	1288.	7.	0.01	433.	621.	37.	-90.
28741	STIG10	RESIDU	0.	-0.025	0.	0.008	0.07	-35.	7.	-1.	-25.	22.	-3.	-0.06	4.	0.	18.	-1.
28741	STIG10	RESIDU	0.	-0.463	0.	0.153	0.22	-318.	-168.	-12.	-124.	152.	2.	0.05	42.	55.	33.	-7.
28741	STIG1S	RESIDU	0.	-0.024	0.	0.010	0.08	-35.	7.	-1.	-25.	23.	-3.	-0.05	4.	0.	17.	-1.
28741	STIG1S	RESIDU	0.	-0.259	0.	0.102	0.23	-195.	-87.	-6.	-82.	101.	2.	0.05	25.	31.	31.	-4.
28741	DEADV3	RESIDU	0.	-0.022	0.	0.012	0.10	-43.	8.	-2.	-33.	24.	-4.	-0.14	2.	0.	30.	-1.
28741	DEADV3	RESIDU	0.	-0.260	0.	0.141	0.29	-316.	-87.	-22.	-190.	122.	-12.	-0.18	13.	34.	38.	-5.
28741	DEHTPM	RESIDU	0.	-0.016	0.	0.018	0.15	-44.	11.	-2.	-33.	26.	-4.	-0.11	2.	0.	26.	-1.
28741	DEHTPM	RESIDU	0.	-0.084	0.	0.092	0.35	-149.	-16.	-9.	-94.	75.	-5.	-0.11	7.	13.	29.	-1.
28741	DESOA3	DISTIL	-0.109	0.086	-0.109	0.119	0.08	-47.	34.	4.	-37.	49.	2.	0.14	3.	0.	31.	-2.
28741	DESOA3	DISTIL	-0.412	0.086	-0.412	0.550	0.25	-771.	-16.	4.	-625.	226.	15.	-0.77	5.	40.	51.	-11.
28741	DESOA3	RESIDU	-0.109	0.086	-0.109	0.119	0.08	-118.	10.	3.	-107.	29.	5.	-0.74	3.	0.	26.	-1.
28741	DESOA3	RESIDU	-0.412	0.086	-0.412	0.550	0.25	-1656.	-104.	1.	-1507.	150.	28.	-2.67	5.	40.	45.	-8.
28741	GTSOAD	DISTIL	-0.102	0.086	-0.102	0.119	0.14	3.	35.	4.	13.	50.	2.	0.66	4.	0.	9.	-1.
28741	GTSOAD	DISTIL	-0.157	0.086	-0.157	0.229	0.31	-20.	26.	4.	25.	100.	6.	0.65	12.	10.	22.	-2.
28741	GTRA08	DISTIL	0.	-0.018	0.	0.016	0.13	-17.	22.	3.	-7.	41.	5.	0.39	3.	0.	18.	-1.
28741	GTRA08	DISTIL	0.	-0.127	0.	0.110	0.34	-74.	-9.	1.	3.	121.	15.	0.48	15.	19.	30.	-3.
28741	GTRA12	DISTIL	0.	-0.018	0.	0.016	0.13	-17.	22.	3.	-6.	41.	5.	0.39	4.	0.	16.	-1.
28741	GTRA12	DISTIL	0.	-0.122	0.	0.110	0.35	-71.	-7.	1.	3.	120.	14.	0.49	15.	19.	29.	-3.
28741	GTRA16	DISTIL	0.	-0.018	0.	0.016	0.14	-17.	22.	3.	-7.	41.	5.	0.39	3.	0.	18.	-1.
28741	GTRA16	DISTIL	0.	-0.113	0.	0.103	0.34	-68.	-5.	1.	2.	114.	14.	0.48	13.	17.	30.	-3.
28741	GTR208	DISTIL	0.	-0.018	0.	0.016	0.13	-18.	22.	3.	-7.	41.	5.	0.39	4.	0.	15.	-1.
28741	GTR208	DISTIL	0.	-0.094	0.	0.086	0.32	-60.	1.	1.	-2.	99.	12.	0.46	13.	14.	27.	-2.
28741	GTR212	DISTIL	0.	-0.018	0.	0.016	0.13	-18.	22.	3.	-7.	41.	5.	0.39	4.	0.	16.	-1.
28741	GTR212	DISTIL	0.	-0.101	0.	0.091	0.33	-63.	-1.	1.	-1.	104.	12.	0.47	13.	15.	28.	-2.
28741	GTR216	DISTIL	0.	-0.017	0.	0.016	0.14	-18.	22.	3.	-7.	41.	5.	0.39	4.	0.	16.	-1.
28741	GTR216	DISTIL	0.	-0.102	0.	0.095	0.34	-63.	-1.	1.	0.	106.	13.	0.48	13.	15.	28.	-2.
28741	GTRW08	DISTIL	0.	-0.021	0.	0.013	0.11	-18.	21.	2.	-7.	40.	4.	0.38	3.	0.	21.	-2.
28741	GTRW08	DISTIL	0.	-0.173	0.	0.111	0.30	-92.	-21.	-0.	-1.	134.	17.	0.45	18.	23.	33.	-4.
28741	GTRW12	DISTIL	0.	-0.020	0.	0.014	0.12	-18.	22.	2.	-7.	40.	4.	0.38	3.	0.	20.	-2.
28741	GTRW12	DISTIL	0.	-0.168	0.	0.120	0.32	-90.	-20.	-0.	3.	138.	17.	0.47	19.	24.	32.	-4.
28741	GTRW16	DISTIL	0.	-0.019	0.	0.014	0.12	-18.	22.	2.	-7.	40.	4.	0.38	3.	0.	21.	-2.
28741	GTRW16	DISTIL	0.	-0.154	0.	0.113	0.32	-84.	-16.	0.	2.	130.	16.	0.47	17.	22.	32.	-4.
28741	GTR308	DISTIL	0.	-0.021	0.	0.012	0.10	-19.	21.	2.	-8.	40.	4.	0.37	4.	0.	20.	-2.
28741	GTR308	DISTIL	0.	-0.138	0.	0.079	0.26	-78.	-12.	0.	-8.	107.	13.	0.42	15.	17.	33.	-4.
28741	GTR312	DISTIL	0.	-0.019	0.	0.015	0.12	-18.	22.	2.	-7.	40.	4.	0.38	4.	0.	18.	-1.
28741	GTR312	DISTIL	0.	-0.133	0.	0.101	0.32	-76.	-10.	1.	-1.	117.	14.	0.46	16.	19.	30.	-3.
28741	GTR316	DISTIL	0.	-0.019	0.	0.014	0.12	-18.	22.	2.	-7.	40.	4.	0.38	3.	0.	19.	-1.
28741	GTR316	DISTIL	0.	-0.131	0.	0.098	0.31	-75.	-10.	1.	-1.	116.	14.	0.46	15.	18.	31.	-3.
28741	FCPADS	DISTIL	0.	-0.023	0.	0.011	0.09	-12.	29.	3.	-2.	47.	5.	0.51	4.	0.	32.	-2.
28741	FCPADS	DISTIL	0.	-0.342	0.	0.166	0.28	-72.	51.	4.	92.	329.	34.	0.85	19.	44.	54.	-15.
28741	FCMCDS	DISTIL	0.	-0.019	0.	0.015	0.12	-26.	29.	3.	-15.	48.	5.	0.37	3.	0.	27.	-2.
28741	FCMCDS	DISTIL	0.	-0.226	0.	0.175	0.36	-224.	51.	-0.	-95.	270.	23.	0.45	14.	35.	48.	-10.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
28951	STM141	RESIDU	0.	-0.005	0.	0.008	0.15	-2.	-2.	-0.	2.	5.	0.	0.15	0.	0.	54.	0.
28951	STM141	COAL-F	0.	-0.005	0.	0.008	0.15	-2.	-6.	-0.	2.	1.	1.	0.09	-2.	0.	80.	0.
28951	STM141	COAL-A	0.	-0.005	0.	0.008	0.15	3.	-6.	-0.	7.	1.	1.	0.20	-1.	0.	55.	0.
28951	STM088	RESIDU	0.	-0.004	0.	0.006	0.11	-1.	-1.	-0.	2.	4.	0.	0.12	0.	0.	55.	0.
28951	STM088	COAL-F	0.	-0.004	0.	0.006	0.11	-1.	-6.	-0.	2.	-0.	1.	0.06	-2.	0.	60.	0.
28951	STM088	COAL-A	0.	-0.004	0.	0.006	0.11	4.	-6.	-0.	7.	-0.	1.	0.16	-1.	0.	56.	0.
28951	PFBSTM	COAL-P	0.	-0.007	0.	0.012	0.22	5.	-8.	1.	11.	3.	2.	0.33	-3.	0.	84.	0.
28951	TISTMT	RESIDU	0.	-0.010	0.	0.015	0.29	-3.	-4.	-0.	5.	9.	1.	0.31	-7.	0.	100.	-1.
28951	TISTMT	COAL	0.	-0.010	0.	0.015	0.29	-3.	-9.	-0.	5.	5.	2.	0.23	-10.	0.	118.	-1.
28951	TIHRSG	RESIDU	0.	-0.005	0.	0.005	0.10	-2.	-2.	-0.	2.	3.	0.	0.11	-7.	0.	104.	-1.
28951	TIHRSG	COAL	0.	-0.005	0.	0.005	0.10	-2.	-7.	-0.	2.	-1.	1.	0.05	-9.	0.	114.	-1.
28951	STIRL	DISTIL	0.	-0.016	0.	0.013	0.25	-1.	-2.	0.	8.	14.	3.	0.52	1.	0.	41.	-0.
28951	STIRL	RESIDU	0.	-0.016	0.	0.013	0.25	-5.	-6.	-2.	4.	9.	-1.	0.25	1.	0.	36.	0.
28951	STIRL	COAL	0.	-0.016	0.	0.013	0.25	-5.	-13.	-1.	4.	3.	2.	0.18	-1.	0.	48.	0.
28951	HEGT85	COAL-A	0.	-0.025	0.	0.009	0.16	-1.	-19.	-1.	10.	0.	1.	0.25	-11.	0.	128.	-1.
28951	HEGT85	COAL-A	0.	-0.055	0.	0.019	0.20	-7.	-37.	-3.	17.	4.	2.	0.28	-15.	4.	91.	-2.
28951	HEGT60	COAL-A	0.	-0.025	0.	0.009	0.17	-1.	-18.	-1.	10.	1.	2.	0.25	-9.	0.	115.	-1.
28951	HEGT60	COAL-A	0.	-0.027	0.	0.010	0.18	-2.	-20.	-1.	10.	1.	2.	0.25	-9.	0.	105.	-1.
28951	HEGT00	COAL-A	0.	-0.013	0.	0.005	0.09	1.	-11.	-1.	7.	-1.	1.	0.13	-6.	0.	85.	-0.
28951	FCMCCL	COAL	0.	-0.015	0.	0.017	0.32	6.	7.	1.	17.	25.	3.	0.96	-6.	0.	89.	-0.
28951	FCSTCL	COAL	0.	-0.015	0.	0.019	0.36	4.	4.	1.	15.	23.	3.	0.86	-7.	0.	94.	-1.
28951	FCSTCL	COAL	0.	-0.023	0.	0.029	0.41	6.	7.	1.	23.	36.	5.	1.00	-7.	2.	71.	-0.
28951	IGGTST	COAL	0.	-0.019	0.	0.015	0.29	-7.	-15.	1.	4.	4.	3.	0.25	-7.	0.	95.	-1.
28951	IGGTST	COAL	0.	-0.020	0.	0.016	0.30	-7.	-16.	1.	5.	5.	4.	0.26	-6.	0.	86.	-0.
28951	GTSOAR	RESIDU	-0.017	0.	-0.017	0.032	0.29	-7.	-6.	-0.	4.	11.	2.	0.41	1.	0.	37.	0.
28951	GTAC08	RESIDU	0.	-0.012	0.	0.014	0.26	-12.	-5.	-1.	-4.	9.	-0.	0.10	1.	0.	36.	0.
28951	GTAC12	RESIDU	0.	-0.015	0.	0.017	0.33	-14.	-6.	-2.	-4.	11.	-0.	0.15	1.	0.	31.	0.
28951	GTAC16	RESIDU	0.	-0.016	0.	0.018	0.34	-14.	-6.	-2.	-3.	12.	-0.	0.17	1.	0.	34.	0.
28951	GTAC16	RESIDU	0.	-0.017	0.	0.019	0.35	-15.	-7.	-2.	-3.	12.	-0.	0.17	1.	0.	31.	0.
28951	GTWC16	RESIDU	0.	-0.018	0.	0.016	0.30	-15.	-7.	-2.	-4.	11.	-1.	0.13	1.	0.	39.	0.
28951	GTWC16	RESIDU	0.	-0.021	0.	0.018	0.31	-17.	-8.	-2.	-5.	12.	-1.	0.13	1.	0.	35.	0.
28951	CC1626	RESIDU	0.	-0.018	0.	0.016	0.30	-13.	-7.	-2.	-3.	11.	-0.	0.16	0.	0.	46.	-0.
28951	CC1626	RESIDU	0.	-0.034	0.	0.030	0.36	-25.	-14.	-3.	-5.	20.	-1.	0.20	2.	3.	36.	-0.
28951	CC1622	RESIDU	0.	-0.017	0.	0.016	0.32	-13.	-7.	-2.	-2.	11.	-0.	0.18	1.	0.	43.	0.
28951	CC1622	RESIDU	0.	-0.030	0.	0.029	0.37	-22.	-12.	-3.	-4.	19.	-1.	0.21	2.	2.	34.	0.
28951	CC1222	RESIDU	0.	-0.017	0.	0.017	0.32	-13.	-7.	-2.	-2.	11.	-0.	0.18	1.	0.	41.	0.
28951	CC1222	RESIDU	0.	-0.029	0.	0.029	0.37	-22.	-12.	-3.	-4.	19.	-0.	0.21	2.	2.	33.	0.
28951	CC0822	RESIDU	0.	-0.016	0.	0.018	0.34	-13.	-6.	-2.	-2.	12.	-0.	0.19	1.	0.	40.	0.
28951	CC0822	RESIDU	0.	-0.022	0.	0.025	0.38	-18.	-9.	-2.	-3.	16.	-0.	0.21	2.	1.	33.	0.
28951	STIG15	RESIDU	0.	-0.028	0.	0.006	0.11	-17.	-11.	-1.	-6.	6.	0.	0.01	0.	0.	57.	-0.
28951	STIG15	RESIDU	0.	-1.197	0.	0.250	0.17	-723.	-479.	-36.	-266.	277.	2.	0.01	88.	133.	39.	-20.
28951	STIG10	RESIDU	0.	-0.025	0.	0.008	0.16	-16.	-10.	-1.	-6.	8.	0.	0.04	0.	0.	51.	-0.
28951	STIG10	RESIDU	0.	-0.101	0.	0.033	0.22	-65.	-40.	-3.	-23.	30.	1.	0.06	6.	9.	40.	-1.
28951	STIG1S	RESIDU	0.	-0.024	0.	0.010	0.18	-17.	-10.	-1.	-6.	8.	0.	0.06	1.	0.	49	-0.
28951	STIG1S	RESIDU	0.	-0.056	0.	0.022	[illegible].23	-38.	-2	-1.	-14.	19.	1.	0.07	3.	4.	3[illegible]	-0.
28951	DEADV	RESIDU	0.	-0.021	0.	0.013	0.24	-25.	-[illegible]	-2.	-14.	9.	-1.	-0.11	-1.	0.	58.	-0.

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ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	********TOTAL******** NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER--- TOTAL EXPORT MWH	COST	LAEC SAVED
28951	DEADV3	RESIDU	0.	-0.049	0.	0.029	0.30	-58.	-20.	-4.	-33.	22.	-2.	-0.14	1.	4.	44.	-1.
28951	DEHTPM	RESIDU	0.	-0.015	0.	0.019	0.36	-24.	-6.	-2.	-13.	12.	-0.	-0.03	-1.	0.	49.	0.
28951	DEHTPM	RESIDU	0.	-0.018	0.	0.022	0.38	-28.	-7.	-2.	-15.	14.	-0.	-0.03	-0.	1.	43.	0.
28951	DESOA3	DISTIL	-0.023	0.	-0.023	0.034	0.21	-55.	0.	0.	-44.	17.	0.	-0.66	-0.	0.	59.	-1.
28951	DESOA3	DISTIL	-0.061	0.	-0.061	0.089	0.27	-148.	-6.	0.	-120.	41.	2.	-0.84	1.	5.	52.	-2.
28951	DESOA3	RESIDU	-0.023	0.	-0.023	0.034	0.21	-120.	-9.	-0.	-109.	10.	2.	-2.42	-0.	0.	54.	-0.
28951	DESOA3	RESIDU	-0.061	0.	-0.061	0.089	0.27	-318.	-23.	-0.	-290.	26.	5.	-2.81	1.	5.	47.	-1.
28951	GTSOAD	DISTIL	-0.015	0.	-0.015	0.031	0.30	-6.	-2.	0.	4.	14.	1.	0.51	2.	0.	36.	0.
28951	GTRA08	DISTIL	0.	-0.017	0.	0.016	0.31	-7.	-3.	0.	4.	16.	3.	0.49	0.	0.	47.	-0.
28951	GTRA08	DISTIL	0.	-0.025	0.	0.024	0.35	-11.	-5.	0.	5.	22.	4.	0.50	1.	1.	39.	-0.
28951	GTRA12	DISTIL	0.	-0.017	0.	0.017	0.32	-7.	-3.	0.	4.	16.	3.	0.50	0.	0.	46.	-0.
28951	GTRA12	DISTIL	0.	-0.024	0.	0.024	0.36	-11.	-5.	0.	5.	22.	4.	0.51	1.	1.	39.	-0.
28951	GTRA16	DISTIL	0.	-0.017	0.	0.017	0.32	-7.	-3.	0.	4.	16.	3.	0.49	0.	0.	47.	-0.
28951	GTRA16	DISTIL	0.	-0.023	0.	0.022	0.35	-10.	-4.	0.	5.	21.	4.	0.50	1.	1.	40.	-0.
28951	GTR208	DISTIL	0.	-0.017	0.	0.017	0.32	-7.	-3.	0.	4.	16.	3.	0.48	1.	0.	42.	-0.
28951	GTR208	DISTIL	0.	-0.019	0.	0.019	0.33	-9.	-3.	0.	4.	18.	3.	0.49	1.	0.	38.	-0.
28951	GTR212	DISTIL	0.	-0.017	0.	0.016	0.31	-7.	-3.	0.	4.	16.	3.	0.49	1.	0.	44.	-0.
28951	GTR212	DISTIL	0.	-0.021	0.	0.020	0.33	-9.	-4.	0.	4.	19.	3.	0.49	1.	1.	39.	-0.
28951	GTR216	DISTIL	0.	-0.017	0.	0.017	0.32	-7.	-3.	0.	4.	16.	3.	0.49	1.	0.	44.	-0.
28951	GTR216	DISTIL	0.	-0.021	0.	0.021	0.34	-9.	-4.	0.	4.	20.	3.	0.50	1.	1.	39.	-0.
28951	GTRW08	DISTIL	0.	-0.020	0.	0.014	0.26	-8.	-3.	0.	3.	16.	3.	0.46	0.	0.	52.	-0.
28951	GTRW08	DISTIL	0.	-0.035	0.	0.024	0.31	-15.	-8.	0.	4.	25.	4.	0.47	2.	2.	43.	-0.
28951	GTRW12	DISTIL	0.	-0.019	0.	0.015	0.28	-7.	-3.	0.	4.	16.	3.	0.47	0.	0.	51.	-0.
28951	GTRW12	DISTIL	0.	-0.034	0.	0.026	0.33	-15.	-7.	0.	5.	26.	4.	0.49	2.	2.	42.	-0.
28951	GTRW16	DISTIL	0.	-0.019	0.	0.015	0.28	-7.	-3.	0.	4.	16.	3.	0.47	0.	0.	51.	-0.
28951	GTRW16	DISTIL	0.	-0.032	0.	0.024	0.33	-14.	-7.	0.	5.	25.	4.	0.49	1.	2.	43.	-0.
28951	GTR308	DISTIL	0.	-0.021	0.	0.013	0.25	-8.	-4.	0.	3.	15.	3.	0.44	1.	0.	49.	-0.
28951	GTR308	DISTIL	0.	-0.027	0.	0.017	0.27	-12.	-5.	0.	3.	19.	4.	0.44	1.	1.	43.	-0.
28951	GTR312	DISTIL	0.	-0.019	0.	0.015	0.28	-7.	-3.	0.	4.	16.	3.	0.47	0.	0.	48.	-0.
28951	GTR312	DISTIL	0.	-0.028	0.	0.022	0.32	-12.	-6.	0.	4.	22.	4.	0.48	2.	1.	40.	-0.
28951	GTR316	DISTIL	0.	-0.019	0.	0.015	0.28	-8.	-3.	0.	3.	16.	3.	0.47	0.	0.	49.	-0.
28951	GTR316	DISTIL	0.	-0.028	0.	0.021	0.32	-12.	-6.	0.	4.	22.	4.	0.48	1.	1.	42.	-0.
28951	FCPADS	DISTIL	0.	-0.023	0.	0.011	0.21	-2.	4.	1.	9.	23.	3.	0.74	1.	0.	61.	-1.
28951	FCPADS	DISTIL	0.	-0.074	0.	0.036	0.28	-12.	7.	1.	24.	68.	8.	0.85	3.	7.	56.	-3.
28951	FCMCDS	DISTIL	0.	-0.019	0.	0.015	0.28	-16.	4.	0.	-5.	23.	3.	0.45	0.	0.	56.	-1.
28951	FCMCDS	DISTIL	0.	-0.049	0.	0.038	0.36	-45.	7.	-0.	-16.	58.	6.	0.46	2.	5.	51.	-2.
28	FCMCDS	DISTIL	-51.014	*******	-51.014	304.069	47.01	*******	-35282.	-5799.	-5897.	320874.	20853.	0.34	38305.	49098.	28633.	-9496.
29111	STM141	RESIDU	0.	-0.049	0.	0.082	0.16	-17.	58.	-2.	22.	116.	-12.	0.25	20.	0.	-5.	-2.
29111	STM141	RESIDU	0.	-0.062	0.	0.102	0.19	-22.	53.	-3.	28.	129.	-11.	0.27	22.	3.	-1.	-1.
29111	STM141	COAL-F	0.	-0.049	0.	0.082	0.16	-17.	-30.	-2.	25.	42.	5.	0.14	2.	0.	30.	2.
29111	STM141	COAL-F	0.	-0.062	0.	0.102	0.19	-22.	-37.	-3.	31.	53.	7.	0.17	8.	3.	18.	3.
29111	STM141	COAL-A	0.	-0.049	0.	0.082	0.16	76.	-30.	-2.	119.	42.	5.	0.33	9.	0.	17.	3.
29111	STM141	COAL-A	0.	-0.062	0.	0.102	0.19	75.	-37.	-3.	128.	53.	7.	0.35	17.	3.	5.	4.
29111	STM088	RESIDU	0.	-0.041	0.	0.068	0.13	-14.	61.	-2.	18.	108.	-13.	0.22	19.	0.	-1.	-2.
29111	STM088	COAL-F	0.	-0.041	0.	0.068	0.13	-14.	-25.	-2.	21.	35.	4.	0.12	6.	0.	22.	2.
29111	STM088	COAL-A	0.	-0.041	0.	0.068	0.13	78.	-25.	-2.	113.	35.	4.	0.30	13.	0.	8.	3.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT COAL	DIRECT OIL+GAS	TOTAL COAL	TOTAL OIL+GAS	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
29111	PFBSTM	COAL-P	0.	-0.052	0.	0.079	0.15	90.	-31.	5.	132.	41.	13.	0.36	-1.	0.	38.	1.
29111	PFBSTM	COAL-P	0.	-0.116	0.	0.177	0.26	98.	-69.	12.	192.	91.	29.	0.47	13.	15.	22.	3.
29111	TISTMT	RESIDU	0.	-0.051	0.	0.080	0.15	-18.	57.	-3.	21.	115.	-12.	0.24	-9.	0.	52.	-6.
29111	TISTMT	RESIDU	0.	-0.156	0.	0.246	0.31	-55.	15.	-8.	71.	219.	-6.	0.37	-31.	25.	83.	-9.
29111	TISTMT	COAL	0.	-0.051	0.	0.080	0.15	-18.	-30.	-3.	24.	41.	5.	0.14	-31.	0.	92.	-2.
29111	TISTMT	COAL	0.	-0.156	0.	0.246	0.31	-55.	-93.	-8.	75.	126.	16.	0.29	-55.	25.	64.	-5.
29111	TIHRSG	RESIDU	0.	-0.085	0.	0.045	0.09	-30.	43.	-4.	9.	101.	-15.	0.18	-24.	0.	88.	-9.
29111	TIHRSG	RESIDU	0.	-0.156	0.	0.083	0.13	-54.	15.	-8.	18.	129.	-15.	0.22	-41.	10.	85.	-12.
29111	TIHRSG	COAL	0.	-0.085	0.	0.045	0.09	-30.	-51.	-4.	12.	20.	3.	0.07	-47.	0.	129.	-5.
29111	TIHRSG	COAL	0.	-0.156	0.	0.083	0.13	-54.	-93.	-8.	22.	37.	6.	0.11	-65.	10.	104.	-8.
29111	STIRL	DISTIL	0.	-0.076	0.	0.055	0.11	29.	102.	11.	71.	173.	19.	0.52	13.	0.	20.	-7.
29111	STIRL	DISTIL	0.	-0.265	0.	0.192	0.23	-15.	48.	8.	133.	299.	35.	0.58	24.	31.	32.	-11.
29111	STIRL	RESIDU	0.	-0.076	0.	0.055	0.11	-27.	47.	-9.	12.	105.	-19.	0.19	13.	0.	15.	-3.
29111	STIRL	RESIDU	0.	-0.265	0.	0.192	0.23	-93.	-29.	-31.	49.	202.	-30.	0.27	24.	31.	28.	-5.
29111	STIRL	COAL	0.	-0.076	0.	0.055	0.11	-27.	-45.	-4.	16.	26.	4.	0.09	-6.	0.	49.	0.
29111	STIRL	COAL	0.	-0.265	0.	0.192	0.23	-93.	-159.	-13.	54.	91.	14.	0.20	-6.	31.	38.	-0.
29111	HEGT60	COAL-A	0.	-0.128	0.	0.002	0.00	58.	-77.	-6.	100.	-5.	1.	0.19	-17.	0.	78.	-2.
29111	HEGT60	COAL-A	0.	-1.492	0.	0.028	0.01	-206.	-895.	-75.	283.	-64.	15.	0.13	-28.	130.	47.	-20.
29111	HEGT00	COAL-A	0.	-0.107	0.	0.024	0.05	58.	-64.	-5.	100.	7.	2.	0.21	-15.	0.	70.	-1.
29111	HEGT00	COAL-A	0.	-0.318	0.	0.070	0.09	7.	-191.	-16.	132.	21.	7.	0.21	-15.	24.	49.	-3.
29111	FCMCCL	COAL	0.	-0.061	0.	0.069	0.13	27.	46.	3.	69.	117.	11.	0.39	-13.	0.	62.	-1.
29111	FCMCCL	COAL	0.	-0.311	0.	0.352	0.34	135.	232.	18.	348.	594.	57.	1.00	-3.	50.	35.	-0.
29111	FCSTCL	COAL	0.	-0.059	0.	0.072	0.14	19.	33.	2.	61.	104.	10.	0.35	-12.	0.	60.	-0.
29111	FCSTCL	COAL	0.	-0.415	0.	0.510	0.39	135.	231.	17.	432.	737.	72.	1.00	6.	74.	32.	1.
29111	IGGTST	COAL	0.	-0.075	0.	0.056	0.11	-26.	-45.	3.	16.	27.	11.	0.11	-11.	0.	58.	-0.
29111	IGGTST	COAL	0.	-0.360	0.	0.270	0.27	-126.	-216.	16.	77.	128.	53.	0.27	3.	47.	32.	1.
29111	GTSOAR	RESIDU	-0.465	0.386	-0.465	0.517	0.10	64.	57.	16.	106.	128.	23.	0.51	13.	0.	15.	-3.
29111	GTSOAR	RESIDU	-0.843	0.386	-0.843	1.151	0.27	-76.	-86.	13.	170.	332.	58.	0.51	55.	59.	24.	-5.
29111	GTAC08	RESIDU	0.	-0.061	0.	0.070	0.14	-60.	53.	-7.	-21.	111.	-17.	0.14	17.	0.	2.	-2.
29111	GTAC08	RESIDU	0.	-0.250	0.	0.287	0.31	-247.	-23.	-29.	-79.	252.	-23.	0.17	46.	38.	15.	-1.
29111	GTAC12	RESIDU	0.	-0.062	0.	0.068	0.13	-56.	52.	-7.	-17.	110.	-17.	0.15	14.	0.	9.	-3.
29111	GTAC12	RESIDU	0.	-0.323	0.	0.353	0.33	-290.	-52.	-35.	-78.	297.	-23.	0.19	53.	51.	18.	-1.
29111	GTAC16	RESIDU	0.	-0.065	0.	0.066	0.13	-55.	51.	-7.	-17.	109.	-17.	0.15	14.	0.	10.	-3.
29111	GTAC16	RESIDU	0.	-0.392	0.	0.394	0.34	-332.	-79.	-40.	-85.	327.	-25.	0.19	58.	61.	20.	-2.
29111	GTWC16	RESIDU	0.	-0.069	0.	0.061	0.12	-58.	50.	-7.	-19.	107.	-17.	0.14	13.	0.	12.	-3.
29111	GTWC16	RESIDU	0.	-0.424	0.	0.374	0.32	-351.	-92.	-43.	-100.	320.	-28.	0.17	61.	63.	20.	-3.
29111	CC1626	RESIDU	0.	-0.071	0.	0.060	0.12	-53.	49.	-7.	-15.	107.	-17.	0.15	13.	0.	13.	-3.
29111	CC1626	RESIDU	0.	-0.637	0.	0.536	0.34	-479.	-178.	-59.	-109.	433.	-30.	0.20	82.	98.	23.	-4.
29111	CC1622	RESIDU	0.	-0.068	0.	0.063	0.12	-53.	50.	-6.	-14.	108.	-17.	0.15	14.	0.	12.	-3.
29111	CC1622	RESIDU	0.	-0.548	0.	0.505	0.35	-425.	-142.	-52.	-94.	406.	-27.	0.21	74.	86.	22.	-3.
29111	CC1222	RESIDU	0.	-0.067	0.	0.063	0.12	-53.	50.	-6.	-14.	108.	-17.	0.15	14.	0.	11.	-3.
29111	CC1222	RESIDU	0.	-0.539	0.	0.507	0.35	-420.	-138.	-51.	-91.	406.	-27.	0.21	76.	86.	21.	-3.
29111	CC0822	RESIDU	0.	-0.063	0.	0.068	0.13	-53.	52.	-6.	-14.	110.	-17.	0.16	14.	0.	10.	-3.
29111	CC0822	RESIDU	0.	-0.396	0.	0.428	0.35	-334.	-81	-41.	-75.	346.	-23.	0.22	63.	65.	19.	-1.
29111	DEHTPM	RESIDU	0.	-0.073	0.	0.057	0.11	-115.	48	-8.	-75.	106.	-18.	0.02	7.	0.	25.	-4.
29111	DEHTPM	RESIDU	0.	-0.378	0.	0.295	0.28	-591.	-74.	-39.	-380.	271.	-30.	-0.14	16.	51.	35.	-8.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
29111	GTS0AD	DISTIL	-0.453	0.386	-0.453	0.517	0.12	99.	158.	19.	138.	216.	9.	0.71	15.	0.	13.	-7.
29111	GTS0AD	DISTIL	-0.724	0.386	-0.724	1.047	0.31	-9.	114.	19.	198.	454.	29.	0.68	55.	50.	22.	-8.
29111	GTRA08	DISTIL	0.	-0.078	0.	0.053	0.10	9.	101.	11.	51.	173.	19.	0.48	13.	0.	20.	-7.
29111	GTRA08	DISTIL	0.	-0.766	0.	0.520	0.31	-326.	-93.	-0.	88.	611.	76.	0.49	80.	108.	31.	-17.
29111	GTRA12	DISTIL	0.	-0.075	0.	0.056	0.11	9.	102.	11.	51.	173.	19.	0.48	13.	0.	19.	-7.
29111	GTRA12	DISTIL	0.	-0.696	0.	0.515	0.32	-298.	-73.	1.	92.	589.	73.	0.50	79.	101.	29.	-15.
29111	GTRA16	DISTIL	0.	-0.074	0.	0.057	0.11	9.	102.	11.	51.	174.	19.	0.48	12.	0.	20.	-7.
29111	GTRA16	DISTIL	0.	-0.622	0.	0.478	0.32	-268.	-52.	2.	86.	549.	67.	0.50	70.	91.	29.	-14.
29111	GTR208	DISTIL	0.	-0.073	0.	0.058	0.11	7.	103.	12.	49.	174.	19.	0.48	13.	0.	17.	-7.
29111	GTR208	DISTIL	0.	-0.489	0.	0.386	0.31	-215.	-15.	4.	67.	464.	56.	0.49	62.	70.	27.	-11.
29111	GTR212	DISTIL	0.	-0.073	0.	0.058	0.11	8.	103.	12.	50.	174.	19.	0.48	13.	0.	18.	-7.
29111	GTR212	DISTIL	0.	-0.525	0.	0.415	0.31	-229.	-25.	4.	73.	489.	59.	0.49	65.	76.	28.	-12.
29111	GTR216	DISTIL	0.	-0.072	0.	0.059	0.11	9.	103.	12.	51.	174.	19.	0.48	13.	0.	18.	-7.
29111	GTR216	DISTIL	0.	-0.533	0.	0.435	0.32	-233.	-27.	4.	79.	503.	61.	0.50	64.	79.	28.	-12.
29111	GTRW08	DISTIL	0.	-0.086	0.	0.045	0.09	6.	99.	11.	48.	171.	19.	0.47	13.	0.	23.	-8.
29111	GTRW08	DISTIL	0.	-0.984	0.	0.519	0.27	-413.	-154.	-4.	71.	668.	85.	0.46	95.	129.	33.	-22.
29111	GTRW12	DISTIL	0.	-0.081	0.	0.050	0.10	8.	100.	11.	50.	172.	19.	0.48	13.	0.	21.	-7.
29111	GTRW12	DISTIL	0.	-0.913	0.	0.565	0.30	-385.	-134.	-3.	91.	675.	85.	0.48	101.	126.	30.	-19.
29111	GTRW16	DISTIL	0.	-0.079	0.	0.052	0.10	8.	101.	11.	50.	172.	19.	0.48	12.	0.	21.	-7.
29111	GTRW16	DISTIL	0.	-0.805	0.	0.524	0.31	-341.	-103.	-1.	86.	623.	78.	0.49	89.	112.	30.	-17.
29111	GTR308	DISTIL	0.	-0.090	0.	0.041	0.08	3.	98.	11.	45.	169.	19.	0.46	13.	0.	23.	-8.
29111	GTR308	DISTIL	0.	-0.766	0.	0.350	0.23	-326.	-93.	-0.	33.	518.	66.	0.43	80.	92.	32.	-19.
29111	GTR312	DISTIL	0.	-0.077	0.	0.054	0.10	8.	102.	11.	50.	173.	19.	0.48	13.	0.	19.	-7.
29111	GTR312	DISTIL	0.	-0.647	0.	0.458	0.31	-278.	-59.	2.	77.	545.	67.	0.49	78.	91.	28.	-14.
29111	GTR316	DISTIL	0.	-0.077	0.	0.054	0.10	8.	101.	11.	50.	173.	19.	0.48	13.	0.	20.	-7.
29111	GTR316	DISTIL	0.	-0.638	0.	0.447	0.30	-274.	-56.	2.	75.	537.	66.	0.49	75.	90.	29.	-14.
29111	FCPADS	DISTIL	0.	-0.088	0.	0.043	0.08	30.	129.	13.	72.	201.	21.	0.58	10.	0.	38.	-9.
29111	FCPADS	DISTIL	0.	-1.546	0.	0.749	0.28	-242.	232.	19.	497.	1487.	155.	0.85	79.	203.	52.	-65.
29111	FCMCDS	DISTIL	0.	-0.074	0.	0.057	0.11	-24.	131.	12.	18.	202.	19.	0.47	10.	0.	34.	-9.
29111	FCMCDS	DISTIL	0.	-1.023	0.	0.792	0.36	-929.	230.	-2.	-345.	1223.	106.	0.47	58.	158.	47.	-43.
29112	STM141	RESIDU	0.	-0.183	0.	0.303	0.16	-64.	20.	-9.	81.	421.	-43.	0.25	74.	0.	-6.	-5.
29112	STM141	RESIDU	0.	-0.212	0.	0.352	0.18	-74.	190.	-11.	95.	451.	-41.	0.27	82.	7.	-4.	-4.
29112	STM141	COAL-F	0.	-0.183	0.	0.303	0.16	-64.	-110.	-9.	92.	156.	20.	0.15	29.	0.	16.	11.
29112	STM141	COAL-F	0.	-0.212	0.	0.352	0.18	-74.	-127.	-11.	107.	181.	23.	0.16	32.	7.	16.	12.
29112	STM141	COAL-A	0.	-0.183	0.	0.303	0.16	271.	-110.	-9.	427.	156.	20.	0.33	47.	0.	7.	13.
29112	STM141	COAL-A	0.	-0.212	0.	0.352	0.18	267.	-127.	-11.	448.	181.	23.	0.34	56.	7.	6.	15.
29112	STM088	RESIDU	0.	-0.140	0.	0.231	0.12	-49.	219.	-7.	59.	376.	-46.	0.21	69.	0.	2.	-6.
29112	STM088	COAL-F	0.	-0.140	0.	0.231	0.12	-49.	-84.	-7.	70.	119.	15.	0.11	22.	0.	22.	9.
29112	STM088	COAL-A	0.	-0.140	0.	0.231	0.12	277.	-84.	-7.	396.	119.	15.	0.29	48.	0.	9.	12.
29112	PFBSTM	COAL-P	0.	-0.192	0.	0.293	0.16	320.	-115.	20.	476.	150.	49.	0.37	28.	0.	20.	9.
29112	PFBSTM	COAL-P	0.	-0.404	0.	0.617	0.26	347.	-242.	42.	676.	316.	102.	0.47	80.	50.	14.	16.
29112	TISTMT	RESIDU	0.	-0.188	0.	0.297	0.16	-66.	199.	-9.	79.	418.	-43.	0.25	-7.	0.	37.	-16.
29112	TISTMT	RESIDU	0.	-0.545	0.	0.860	0.31	-191.	57.	-27.	247.	768.	-21.	0.37	-36.	86.	41.	-23.
29112	TISTMT	COAL	0.	-0.188	0.	0.297	0.16	-66.	-113.	-9.	90.	153.	19.	0.14	-58.	0.	61.	-1.
29112	TISTMT	COAL	0.	-0.545	0.	0.860	0.31	-191.	-327.	-27.	261.	441.	56.	0.28	-97.	86.	47.	-4.
29112	TIHRSG	RESIDU	0.	-0.317	0.	0.169	0.09	-111.	148.	-16.	33.	363.	-55.	0.19	-42.	0.	63.	-25.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
29112	TIHRSG	RESIDU	0.	-0.553	0.	0.294	0.13	-194.	54.	-28.	65.	459.	-55.	0.22	-76.	34.	65.	-34.
29112	TIHRSG	COAL	0.	-0.317	0.	0.169	0.09	-111.	-190.	-16.	45.	75.	13.	0.07	-94.	0.	85.	-8.
29112	TIHRSG	COAL	0.	-0.553	0.	0.294	0.13	-194.	-332.	-28.	79.	132.	23.	0.11	-137.	34.	76.	-15.
29112	STIRL	DISTIL	0.	-0.282	0.	0.204	0.11	100.	358.	41.	256.	624.	69.	0.52	42.	0.	22.	-26.
29112	STIRL	DISTIL	0.	-0.943	0.	0.683	0.23	-52.	172.	29.	471.	1061.	126.	0.58	83.	107.	33.	-38.
29112	STIRL	RESIDU	0.	-0.282	0.	0.204	0.11	-99.	162.	-32.	45.	378.	-70.	0.19	42.	0.	18.	-12.
29112	STIRL	RESIDU	0.	-0.943	0.	0.683	0.23	-330.	-102.	-109.	176.	717.	-105.	0.27	83.	107.	28.	-19.
29112	STIRL	COAL	0.	-0.282	0.	0.204	0.11	-99.	-169.	-14.	58.	97.	15.	0.09	-11.	0.	41.	4.
29112	STIRL	COAL	0.	-0.943	0.	0.683	0.23	-330.	-565.	-47.	193.	324.	49.	0.20	-22.	107.	37.	0.
29112	HEGT60	COAL-A	0.	-0.477	0.	0.009	0.00	203.	-286.	-24.	359.	-20.	5.	0.19	-29.	0.	58.	-3.
29112	HEGT60	COAL-A	0.	-5.304	0.	0.101	0.01	-731.	-3182.	-265.	1008.	-226.	55.	0.13	-5.	461.	43.	-57.
29112	HEGT00	COAL-A	0.	-0.398	0.	0.087	0.05	201.	-239.	-20.	357.	27.	9.	0.21	-12.	0.	46.	1.
29112	HEGT00	COAL-A	0.	-1.129	0.	0.247	0.09	27.	-677.	-56.	469.	75.	25.	0.21	19.	84.	36.	-2.
29112	FCMCCL	COAL	0.	-0.228	0.	0.258	0.14	99.	170.	13.	255.	435.	42.	0.40	-12.	0.	41.	3.
29112	FCMCCL	COAL	0.	-1.107	0.	1.250	0.34	480.	823.	62.	1238.	2112.	202.	1.00	67.	175.	27.	10.
29112	FCSTCL	COAL	0.	-0.218	0.	0.268	0.14	72.	123.	9.	228.	388.	38.	0.36	-10.	0.	39.	4.
29112	FCSTCL	COAL	0.	-1.462	0.	1.794	0.39	479.	823.	62.	1527.	2604.	254.	1.00	111.	260.	25.	16.
29112	IGGTST	COAL	0.	-0.278	0.	0.207	0.11	-97.	-167.	12.	59.	99.	41.	0.11	-3.	0.	35.	5.
29112	IGGTST	COAL	0.	-1.268	0.	0.944	0.26	-444.	-761.	55.	268.	449.	186.	0.26	61.	162.	26.	11.
29112	GTSOAR	RESIDU	-1.664	1.374	-1.664	1.859	0.11	223.	198.	55.	379.	463.	84.	0.51	61.	0.	9.	-10.
29112	GTSOAR	RESIDU	-2.998	1.374	-2.998	4.090	0.27	-269.	-304.	45.	605.	1181.	206.	0.51	200.	209.	23.	-17.
29112	GTAC08	RESIDU	0.	-0.226	0.	0.259	0.14	-223.	184.	-27.	-79.	402.	-62.	0.14	64.	0.	2.	-8.
29112	GTAC08	RESIDU	0.	-0.890	0.	1.020	0.31	-877.	-81.	-104.	-280.	695.	-82.	0.17	165.	134.	15.	-3.
29112	GTAC12	RESIDU	0.	-0.232	0.	0.254	0.14	-209.	182.	-25.	-64.	399.	-61.	0.15	63.	0.	4.	-8.
29112	GTAC12	RESIDU	0.	-1.148	0.	1.256	0.33	-1032.	-184.	-124.	-278.	1054.	-83.	0.19	191.	180.	18.	-4.
29112	GTAC16	RESIDU	0.	-0.242	0.	0.243	0.13	-205.	178.	-25.	-61.	395.	-61.	0.15	61.	0.	5.	-8.
29112	GTAC16	RESIDU	0.	-1.393	0.	1.400	0.34	-1179.	-282.	-143.	-301.	1162.	-88.	0.19	205.	216.	20.	-7.
29112	GTWC16	RESIDU	0.	-0.258	0.	0.228	0.12	-214.	172.	-26.	-70.	388.	-62.	0.14	62.	0.	6.	-9.
29112	GTWC16	RESIDU	0.	-1.506	0.	1.329	0.32	-1247.	-328.	-152.	-357.	1136.	-93.	0.17	223.	220.	20.	-9.
29112	CC1626	RESIDU	0.	-0.264	0.	0.222	0.12	-199.	169.	-24.	-55.	386.	-61.	0.15	62.	0.	6.	-9.
29112	CC1626	RESIDU	0.	-2.247	0.	1.885	0.34	-1692.	-624.	-208.	-390.	1527.	-109.	0.20	303.	342.	22.	-12.
29112	CC1622	RESIDU	0.	-0.253	0.	0.233	0.13	-197.	174.	-24.	-53.	390.	-60.	0.15	61.	0.	6.	-9.
29112	CC1622	RESIDU	0.	-1.932	0.	1.777	0.35	-1502.	-498.	-184.	-334.	1431.	-97.	0.21	263.	302.	21.	-10.
29112	CC1222	RESIDU	0.	-0.251	0.	0.235	0.13	-196.	174.	-24.	-52.	391.	-60.	0.15	62.	0.	5.	-9
29112	CC1222	RESIDU	0.	-1.901	0.	1.781	0.35	-1484.	-486.	-182.	-324.	1430.	-95.	0.21	270.	300.	21.	-8
29112	CC0822	RESIDU	0.	-0.234	0.	0.252	0.14	-198.	181.	-24.	-54.	399.	-60.	0.16	63.	0.	4.	-8.
29112	CC0822	RESIDU	0.	-1.394	0.	1.504	0.35	-1180.	-283.	-143.	-268.	1219.	-82.	0.21	232.	226.	18.	-8.
29112	DEHTPM	RESIDU	0.	-0.273	0.	0.213	0.11	-427.	166.	-28.	-283.	382.	-65.	0.02	33.	0.	22.	-13.
29112	DEHTPM	RESIDU	0.	-1.342	0.	1.047	0.28	-2099.	-262.	-139.	-1351.	963.	-106.	-0.14	57.	179.	35.	-29.
29112	GTSOAD	DISTIL	-1.622	1.374	-1.622	1.859	0.13	347.	561.	69.	491.	778.	33.	0.71	65.	0.	8.	-22.
29112	GTSOAD	DISTIL	-2.573	1.374	-2.573	3.722	0.31	-34.	406.	69.	702.	1613.	105.	0.68	194.	175.	22.	-27.
29112	GTRA08	DISTIL	0.	-0.289	0.	0.196	0.11	24.	356.	40.	181.	622.	69.	0.48	59.	0.	14.	-24.
29112	GTRA08	DISTIL	0.	-2.723	0.	1.848	0.31	-1158.	-329.	-1.	313.	2171.	270.	0.49	297.	383.	30.	-59.
29112	GTRA12	DISTIL	0.	-0.279	0.	0.207	0.11	27.	359.	41.	183.	625.	69.	0.48	59.	0.	1[illegible]	-24.
29112	GTRA[illegible]	DISTIL	0.	-2.473	0.	1.631	0.32	-1058.	-[illegible]	3.	327.	2095.	258.	0.50	280.	358.	[illegible]	-52.
29112	GTRA[illegible]	DISTIL	0.	-0.275	0.	0.211	0.11	26.	3[illegible]	41.	182.	626.	69.	0.48	58.	0.	14.	-24.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
29112	GTRA16	DISTIL	0.	-2.210	0.	1.699	0.32	-953.	-184.	8.	305.	1953.	239.	0.50	249.	321.	29.	-49.
29112	GTR208	DISTIL	0.	-0.271	0.	0.214	0.12	20.	361.	41.	176.	627.	69.	0.48	61.	0.	12.	-23.
29112	GTR208	DISTIL	0.	-1.738	0.	1.374	0.31	-764.	-52.	16.	237.	1650.	200.	0.49	225.	246.	27.	-39.
29112	GTR212	DISTIL	0.	-0.271	0.	0.214	0.12	22.	361.	41.	179.	627.	69.	0.48	60.	0.	12.	-23.
29112	GTR212	DISTIL	0.	-1.866	0.	1.475	0.31	-815.	-88.	14.	260.	1739.	211.	0.49	235.	268.	27.	-41.
29112	GTR216	DISTIL	0.	-0.267	0.	0.218	0.12	25.	362.	41.	181.	628.	70.	0.48	59.	0.	12.	-23.
29112	GTR216	DISTIL	0.	-1.895	0.	1.547	0.32	-827.	-96.	13.	281.	1787.	217.	0.50	233.	277.	28.	-42.
29112	GTRW08	DISTIL	0.	-0.318	0.	0.168	0.09	16.	348.	40.	173.	614.	69.	0.47	57.	0.	18.	-26.
29112	GTRW08	DISTIL	0.	-3.496	0.	1.846	0.27	-1467.	-547.	-14.	251.	2375.	302.	0.46	375.	455.	32.	-75.
29112	GTRW12	DISTIL	0.	-0.300	0.	0.186	0.10	23.	353.	40.	180.	619.	69.	0.48	57.	0.	16.	-25.
29112	GTRW12	DISTIL	0.	-3.246	0.	2.009	0.30	-1367.	-476.	-10.	324.	2398.	301.	0.48	370.	447.	30.	-65.
29112	GTRW16	DISTIL	0.	-0.294	0.	0.192	0.10	23.	355.	40.	179.	620.	69.	0.48	59.	0.	14.	-24.
29112	GTRW16	DISTIL	0.	-2.860	0.	1.863	0.31	-1213.	-368.	-3.	307.	2216.	276.	0.49	329.	397.	30.	-59.
29112	GTR308	DISTIL	0.	-0.333	0.	0.152	0.08	3.	344.	40.	159.	609.	68.	0.46	61.	0.	17.	-26.
29112	GTR308	DISTIL	0.	-2.723	0.	1.246	0.23	-1158.	-329.	-1.	119.	1841.	234.	0.43	287.	327.	32.	-66.
29112	GTR312	DISTIL	0.	-0.285	0.	0.201	0.11	22.	357.	40.	178.	623.	69.	0.48	61.	0.	13.	-24.
29112	GTR312	DISTIL	0.	-2.300	0.	1.626	0.31	-989.	-210.	6.	275.	1937.	239.	0.49	284.	323.	28.	-48.
29112	GTR316	DISTIL	0.	-0.285	0.	0.200	0.11	21.	357.	40.	178.	623.	69.	0.48	60.	0.	13.	-24.
29112	GTR316	DISTIL	0.	-2.267	0.	1.590	0.30	-976.	-201.	7.	265.	1909.	235.	0.49	275.	316.	28.	-49.
29112	FCPADS	DISTIL	0.	-0.327	0.	0.158	0.09	104.	461.	47.	260.	726.	75.	0.58	41.	0.	37.	-33.
29112	FCPADS	DISTIL	0.	-5.495	0.	2.662	0.28	-859.	824.	69.	1766.	5285.	552.	0.85	317.	719.	51.	-227.
29112	FCMCDS	DISTIL	0.	-0.274	0.	0.212	0.11	-96.	466.	41.	60.	732.	70.	0.47	40.	0.	33.	-30.
29112	FCMCDS	DISTIL	0.	-3.638	0.	2.815	0.36	-3303.	817.	-6.	-1227.	4346.	376.	0.47	233.	560.	46.	-150.
29113	STM141	RESIDU	0.	-0.443	0.	0.734	0.17	-155.	450.	-22.	197.	986.	-96.	0.26	168.	0.	-3.	-10.
29113	STM141	RESIDU	0.	-0.513	0.	0.850	0.19	-180.	422.	-26.	232.	1058.	-91.	0.27	188.	17.	-2.	-8.
29113	STM141	COAL-F	0.	-0.443	0.	0.734	0.17	-155.	-266.	-22.	224.	378.	48.	0.15	67.	0.	16.	27.
29113	STM141	COAL-F	0.	-0.513	0.	0.850	0.19	-180.	-308.	-26.	259.	438.	55.	0.17	78.	17.	15.	30.
29113	STM141	COAL-A	0.	-0.443	0.	0.734	0.17	614.	-266.	-22.	993.	378.	48.	0.34	118.	0.	6.	33.
29113	STM141	COAL-A	0.	-0.513	0.	0.850	0.19	605.	-308.	-26.	1043.	438.	55.	0.35	139.	17.	5.	37.
29113	STM088	RESIDU	0.	-0.345	0.	0.572	0.13	-121.	489.	-17.	148.	886.	-102.	0.22	162.	0.	3.	-14.
29113	STM088	COAL-F	0.	-0.345	0.	0.572	0.13	-121.	-207.	-17.	174.	294.	37.	0.12	64.	0.	19.	23.
29113	STM088	COAL-A	0.	-0.345	0.	0.572	0.13	627.	-207.	-17.	922.	294.	37.	0.30	108.	0.	11.	28.
29113	PFBSTM	COAL-P	0.	-0.464	0.	0.713	0.17	731.	-279.	47.	1110.	365.	116.	0.38	94.	0.	14.	27.
29113	PFBSTM	COAL-P	0.	-0.951	0.	1.460	0.26	791.	-571.	95.	1567.	748.	238.	0.48	183.	116.	14.	37.
29113	TISTMT	RESIDU	0.	-0.456	0.	0.721	0.17	-160.	445.	-23.	192.	981.	-97.	0.25	17.	0.	29.	-31.
29113	TISTMT	RESIDU	0.	-1.278	0.	2.020	0.31	-447.	116.	-64.	581.	1787.	-45.	0.37	-117.	199.	43.	-57.
29113	TISTMT	COAL	0.	-0.456	0.	0.721	0.17	-160.	-274.	-23.	219.	370.	47.	0.15	-84.	0.	48.	7.
29113	TISTMT	COAL	0.	-1.278	0.	2.020	0.31	-447.	-767.	-64.	614.	1037.	131.	0.29	-265.	199.	50.	-13.
29113	TIHRSG	RESIDU	0.	-0.768	0.	0.409	0.09	-269.	320.	-38.	80.	846.	-125.	0.19	-100.	0.	63.	-57.
29113	TIHRSG	RESIDU	0.	-1.262	0.	0.671	0.13	-442.	122.	-63.	147.	1048.	-125.	0.22	-212.	71.	70.	-81.
29113	TIHRSG	COAL	0.	-0.768	0.	0.409	0.09	-269.	-461.	-38.	110.	183.	31.	0.08	-228.	0.	84.	-19.
29113	TIHRSG	COAL	0.	-1.262	0.	0.671	0.13	-442.	-757.	-63.	180.	300.	51.	0.11	-360.	71.	82.	-39.
29113	STIRL	DISTIL	0.	-0.682	0.	0.494	0.11	219.	806.	92.	598.	1450.	162.	0.52	102.	0.	23.	-59.
29113	STIRL	DISTIL	0.	-2.151	0.	1.559	0.23	-119.	393.	67.	1075.	2422.	287.	0.58	201.	238.	32.	-85.
29113	STIRL	RESIDU	0.	-0.682	0.	0.494	0.11	-239.	354.	-79.	111.	883.	-162.	0.20	101.	0.	18.	-28.
29113	STIRL	RESIDU	0.	-2.151	0.	1.559	0.23	-753.	-234.	-248.	401.	1637.	-239.	0.27	201.	238.	27.	-41.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	TOTAL COAL	TOTAL OIL+GAS	FESR COAL	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST SAVED	LAEC SAVED
29113	STIRL	COAL	0.	-0.682	0.	0.494	0.11	-239.	-409.	-34.	140.	234.	36.	0.10	-27.	0.	40.	10.
29113	STIRL	COAL	0.	-2.151	0.	1.559	0.23	-753.	-1291.	-108.	441.	738.	112.	0.20	-39.	238.	36.	4.
29113	HEGT60	COAL-A	0.	-1.155	0.	0.022	0.01	451.	-693.	-58.	829.	-49.	12.	0.19	-18.	0.	47.	0.
29113	HEGT60	COAL-A	0.	-12.104	0.	0.230	0.01	-1669.	-7262.	-605.	2300.	-517.	125.	0.13	-55.	1046.	44.	-136.
29113	HEGT00	COAL-A	0.	-0.965	0.	0.212	0.05	444.	-579.	-48.	823.	64.	21.	0.21	12.	0.	37.	8.
29113	HEGT00	COAL-A	0.	-2.577	0.	0.565	0.09	61.	-1546.	-129.	1071.	172.	57.	0.21	49.	184.	36.	-3.
29113	FCMCCL	COAL	0.	-0.553	0.	0.624	0.14	240.	411.	31.	618.	1055.	101.	0.42	-4.	0.	35.	12.
29113	FCMCCL	COAL	0.	-2.526	0.	2.852	0.34	1094.	1878.	143.	2825.	4819.	461.	1.00	261.	394.	22.	38.
29113	FCSTCL	COAL	0.	-0.528	0.	0.649	0.15	170.	293.	22.	549.	936.	92.	0.37	-1.	0.	34.	14.
29113	FCSTCL	COAL	0.	-3.387	0.	4.165	0.39	1094.	1878.	140.	3524.	6008.	588.	1.00	384.	598.	20.	55.
29113	IGGTST	COAL	0.	-0.672	0.	0.505	0.12	-235.	-403.	29.	144.	241.	99.	0.11	13.	0.	31.	16.
29113	IGGTST	COAL	0.	-2.940	0.	2.212	0.27	-1029.	-1764.	126.	629.	1054.	431.	0.27	190.	373.	23.	34.
29113	GTSOAR	RESIDU	-3.839	3.135	-3.839	4.312	0.11	493.	436.	126.	872.	1079.	196.	0.51	139.	0.	10.	-23.
29113	GTSOAR	RESIDU	-6.841	3.135	-6.841	9.335	0.27	-613.	-695.	102.	1382.	2696.	469.	0.51	470.	471.	23.	-36.
29113	GTAC08	RESIDU	0.	-0.548	0.	0.629	0.15	-541.	406.	-64.	-190.	941.	-142.	0.14	153.	0.	3.	-16.
29113	GTAC08	RESIDU	0.	-2.030	0.	2.328	0.31	-2002.	-185.	-238.	-638.	2043.	-187.	0.17	388.	298.	15.	-5.
29113	GTAC12	RESIDU	0.	-0.562	0.	0.615	0.14	-505.	402.	-61.	-155.	935.	-139.	0.15	149.	0.	4.	-17.
29113	GTAC12	RESIDU	0.	-2.620	0.	2.865	0.33	-2356.	-421.	-284.	-634.	2406.	-189.	0.19	449.	404.	17.	-7.
29113	GTAC16	RESIDU	0.	-0.587	0.	0.590	0.14	-497.	392.	-60.	-146.	924.	-139.	0.15	143.	0.	6.	-18.
29113	GTAC16	RESIDU	0.	-3.178	0.	3.194	0.34	-2691.	-646.	-326.	-668.	2651.	-201.	0.19	488.	487.	19.	-13.
29113	GTWC16	RESIDU	0.	-0.625	0.	0.552	0.13	-518.	377.	-63.	-167.	908.	-144.	0.14	147.	0.	7.	-19.
29113	GTWC16	RESIDU	0.	-3.437	0.	3.032	0.32	-2846.	-748.	-345.	-814.	2593.	-226.	0.17	531.	496.	19.	-16.
29113	CC1626	RESIDU	0.	-0.639	0.	0.538	0.12	-480.	372.	-59.	-129.	902.	-140.	0.15	146.	0.	7.	-20.
29113	CC1626	RESIDU	0.	-5.194	0.	4.376	0.34	-3900.	-1451.	-480.	-884.	3533.	-247.	0.20	729.	787.	21.	-22.
29113	CC1622	RESIDU	0.	-0.612	0.	0.565	0.13	-474.	382.	-58.	-124.	914.	-138.	0.15	143.	0.	7.	-20.
29113	CC1622	RESIDU	0.	-4.466	0.	4.126	0.35	-3463.	-1159.	-425.	-756.	3312.	-220.	0.21	628.	695.	21.	-19.
29113	CC1222	RESIDU	0.	-0.606	0.	0.571	0.13	-472.	384.	-58.	-121.	916.	-138.	0.16	146.	0.	6.	-19.
29113	CC1222	RESIDU	0.	-4.397	0.	4.138	0.35	-3422.	-1132.	-419.	-733.	3310.	-215.	0.21	643.	690.	20.	-16.
29113	CC0822	RESIDU	0.	-0.565	0.	0.612	0.14	-476.	401.	-58.	-125.	934.	-136.	0.16	148.	0.	5.	-17.
29113	CC0822	RESIDU	0.	-3.231	0.	3.501	0.35	-2722.	-665.	-330.	-604.	2825.	-186.	0.22	545.	521.	17.	-5.
29113	DEHTPM	RESIDU	0.	-0.661	0.	0.516	0.12	-1034.	363.	-69.	-684.	892.	-151.	0.01	76.	0.	23.	-30.
29113	DEHTPM	RESIDU	0.	-3.063	0.	2.389	0.28	-4791.	-598.	-317.	-3083.	2198.	-243.	-0.14	151.	401.	34.	-63.
29113	GTSOAD	DISTIL	-3.736	3.135	-3.736	4.312	0.13	778.	1274.	157.	1129.	1805.	77.	0.71	152.	0.	9.	-49.
29113	GTSOAD	DISTIL	-5.872	3.135	-5.872	8.493	0.31	-77.	927.	157.	1603.	3681.	239.	0.68	464.	392.	21.	-59.
29113	GTRA08	DISTIL	0.	-0.701	0.	0.476	0.11	36.	801.	92.	414.	1445.	161.	0.48	136.	0.	16.	-55.
29113	GTRA08	DISTIL	0.	-6.215	0.	4.216	0.31	-2643.	-751.	-2.	713.	4954.	615.	0.49	700.	868.	30.	-130.
29113	GTRA12	DISTIL	0.	-0.676	0.	0.501	0.12	42.	808.	92.	420.	1452.	162.	0.48	139.	0.	14.	-53.
29113	GTRA12	DISTIL	0.	-5.643	0.	4.177	0.32	-2414.	-590.	8.	746.	4781.	589.	0.50	663.	811.	29.	-116.
29113	GTRA16	DISTIL	0.	-0.665	0.	0.511	0.12	40.	811.	92.	418.	1455.	162.	0.48	137.	0.	14.	-53.
29113	GTRA16	DISTIL	0.	-5.043	0.	3.876	0.32	-2174.	-421.	18.	696.	4457.	546.	0.50	594.	726.	29.	-108.
29113	GTR208	DISTIL	0.	-0.657	0.	0.520	0.12	25.	813.	92.	404.	1457.	162.	0.48	139.	0.	13.	-53.
29113	GTR208	DISTIL	0.	-3.966	0.	3.135	0.31	-1743.	-118.	36.	541.	3766.	456.	0.49	527.	556.	26.	-87.
29113	GTR212	DISTIL	0.	-0.657	0.	0.520	0.12	31.	813.	92.	410.	1457.	162.	0.48	142.	0.	13.	-52.
29113	GTR212	DISTIL	0.	-4.258	0.	3.366	0.31	-1860.	-200	31.	593.	3970.	482.	0.49	552.	605.	27	-92.
29113	GTR21	DISTIL	0.	-0.648	0.	0.529	0.12	37.	81	92.	416.	1460.	162.	0.48	139.	0.	13	-52.
29113	GTR21	ISTIL	0.	-4.324	0.	3.531	0.32	-1887.	-215.	30.	641.	4078.	495.	0.50	548.	626.	27.	-93.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
29113	GTRW08	DISTIL	0.	-0.770	0.	0.407	0.09	17.	782.	90.	395.	1425.	160.	0.47	142.	0.	17.	-57.
29113	GTRW08	DISTIL	0.	-7.978	0.	4.212	0.27	-3348.	-1247.	-32.	574.	5419.	689.	0.46	865.	1033.	31.	-169.
29113	GTRW12	DISTIL	0.	-0.727	0.	0.450	0.10	33.	794.	91.	412.	1438.	161.	0.48	142.	0.	16.	-55.
29113	GTRW12	DISTIL	0.	-7.407	0.	4.585	0.30	-3120.	-1087.	-22.	738.	5472.	687.	0.48	860.	1014.	30.	-146.
29113	GTRW16	DISTIL	0.	-0.713	0.	0.464	0.11	33.	798.	91.	412.	1442.	161.	0.48	138.	0.	16.	-55.
29113	GTRW16	DISTIL	0.	-6.527	0.	4.252	0.31	-2768.	-839.	-8.	700.	5056.	631.	0.49	773.	901.	29.	-131.
29113	GTR308	DISTIL	0.	-0.807	0.	0.369	0.09	-16.	771.	90.	363.	1415.	159.	0.46	147.	0.	17.	-58.
29113	GTR308	DISTIL	0.	-6.213	0.	2.843	0.23	-2642.	-750.	-2.	272.	4202.	534.	0.43	683.	739.	31.	-147.
29113	GTR312	DISTIL	0.	-0.689	0.	0.487	0.11	30.	804.	92.	409.	1448.	161.	0.48	145.	0.	13.	-53.
29113	GTR312	DISTIL	0.	-5.249	0.	3.711	0.31	-2256.	-479.	14.	626.	4421.	545.	0.49	674.	730.	27.	-106.
29113	GTR316	DISTIL	0.	-0.692	0.	0.485	0.11	28.	804.	92.	407.	1447.	161.	0.48	144.	0.	14.	-54.
29113	GTR316	DISTIL	0.	-5.174	0.	3.628	0.30	-2227.	-458.	15.	606.	4356.	537.	0.49	652.	715.	28.	-107.
29113	FCPADS	DISTIL	0.	-0.793	0.	0.384	0.09	229.	1054.	107.	607.	1698.	176.	0.59	98.	0.	38.	-76.
29113	FCPADS	DISTIL	0.	-12.540	0.	6.074	0.28	-1959.	1881.	157.	4029.	12061.	1259.	0.85	754.	1635.	51.	-513.
29113	FCMCDS	DISTIL	0.	-0.664	0.	0.513	0.12	-256.	1068.	94.	122.	1711.	164.	0.47	93.	0.	34.	-70.
29113	FCMCDS	DISTIL	0.	-8.302	0.	6.423	0.36	-7538.	1864.	-15.	-2800.	9917.	857.	0.47	549.	1271.	46.	-339.
29	FCMCDS	DISTIL	-31.629	*******	-31.629	249.662	8.84	*******	-5367.	-4218.	52332.	270818.	17709.	0.41	29675.	34293.	6862.	-6159.
33121	STM141	RESIDU	0.	-0.008	0.	0.013	0.03	-19.	11.	-0.	-12.	21.	-2.	0.01	4.	0.	60.	-0.
33121	STM141	COAL-F	0.	-0.008	0.	0.013	0.03	-19.	-5.	-0.	-12.	7.	1.	-0.01	-1.	0.	49.	0.
33121	STM141	COAL-A	0.	-0.008	0.	0.013	0.03	-1.	-5.	-0.	6.	7.	1.	0.03	1.	0.	48.	0.
33121	STM088	RESIDU	0.	-0.004	0.	0.007	0.01	-17.	13.	-0.	-14.	17.	-3.	0.00	4.	0.	60.	-0.
33121	STM088	COAL-F	0.	-0.004	0.	0.007	0.01	-17.	-3.	-0.	-14.	4.	0.	-0.02	-1.	0.	50.	-0.
33121	STM088	COAL-A	0.	-0.004	0.	0.007	0.01	-1.	-3.	-0.	3.	4.	0.	0.02	1.	0.	49.	0.
33121	PFBSTM	COAL-P	0.	-0.018	0.	0.027	0.05	3.	-11.	2.	18.	14.	5.	0.08	-1.	0.	49.	0.
33121	TISTMT	RESIDU	0.	-0.025	0.	0.039	0.08	-25.	5.	-1.	-5.	37.	-1.	0.07	-16.	0.	69.	-3.
33121	TISTMT	COAL	0.	-0.025	0.	0.039	0.08	-25.	-15.	-1.	-4.	20.	3.	0.04	-24.	0.	62.	-2.
33121	TIHRSG	RESIDU	0.	-0.028	0.	0.017	0.03	-26.	3.	-1.	-12.	25.	-3.	0.02	-17.	0.	72.	-3.
33121	TIHRSG	COAL	0.	-0.028	0.	0.017	0.03	-26.	-17.	-1.	-11.	8.	1.	-0.01	-26.	0.	64.	-3.
33121	STIRL	DISTIL	0.	-0.052	0.	0.038	0.08	-19.	9.	2.	10.	58.	7.	0.17	7.	0.	83.	-1.
33121	STIRL	RESIDU	0.	-0.052	0.	0.038	0.08	-34.	-6.	-6.	-6.	40.	-6.	0.06	7.	0.	56.	0.
33121	STIRL	COAL	0.	-0.052	0.	0.038	0.08	-34.	-31.	-3.	-5.	18.	3.	0.04	-0.	0.	48.	1.
33121	HEGT60	COAL-A	0.	-0.235	0.	0.015	0.03	-46.	-141.	-12.	34.	-5.	3.	0.07	-26.	0.	64.	-3.
33121	HEGT00	COAL-A	0.	-0.059	0.	0.014	0.03	-14.	-35.	-3.	9.	4.	1.	0.03	-11.	0.	55.	-1.
33121	FCMCCL	COAL	0.	-0.059	0.	0.067	0.13	10.	44.	3.	50.	113.	11.	0.38	-9.	0.	52.	-0.
33121	FCSTCL	COAL	0.	-0.072	0.	0.088	0.17	10.	44.	3.	61.	131.	13.	0.45	-9.	0.	51.	0.
33121	IGGTST	COAL	0.	-0.062	0.	0.044	0.09	-38.	-37.	3.	-3.	21.	9.	0.06	-9.	0.	52.	-0.
33121	GTSOAR	RESIDU	-0.157	0.073	-0.157	0.215	0.12	-29.	-15.	2.	16.	63.	11.	0.20	12.	0.	51.	1.
33121	GTAC08	RESIDU	0.	-0.047	0.	0.054	0.11	-63.	-4.	-6.	-31.	48.	-4.	0.03	10.	0.	53.	1.
33121	GTAC12	RESIDU	0.	-0.061	0.	0.067	0.13	-71.	-10.	-7.	-31.	56.	-4.	0.05	12.	0.	50.	1.
33121	GTAC16	RESIDU	0.	-0.074	0.	0.075	0.15	-78.	-15.	-8.	-32.	62.	-5.	0.06	13.	0.	49.	1.
33121	GTVC16	RESIDU	0.	-0.080	0.	0.071	0.14	-82.	-18.	-8.	-35.	61.	-5.	0.05	13.	0.	50.	1.
33121	CC1626	RESIDU	0.	-0.112	0.	0.092	0.18	-102.	-30.	-11.	-37.	76.	-6.	0.07	17.	0.	46.	1.
33121	CC1622	RESIDU	0.	-0.096	0.	0.087	0.17	-92.	-24.	-9.	-34.	71.	-5.	0.07	15.	0.	47.	1.
33121	CC1222	RESIDU	0.	-0.095	0.	0.087	0.17	-91.	-23.	-9.	-34.	71.	-5.	0.07	16.	0.	47.	1.
33121	CC0822	RESIDU	0.	-0.069	0.	0.072	0.14	-75.	-13.	-7.	-31.	60.	-5.	0.05	13.	0.	50.	1.
33121	DEADV3	RESIDU	0.	-0.293	0.	0.132	0.26	-338.	-102.	-24.	-204.	119.	-14.	-0.22	15.	0.	43.	-1.

ISE PEØ AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****DIRECT***** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	-------DIRECT-------- NOX	SOX	PART	********TOTAL******** NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER--- TOTAL EXPORT MWH	COST	LAEC SAVED
33121	DEHTPM	RESIDU	0.	-0.072	0.	0.061	0.12	-128.	-14.	-7.	-87.	54.	-5.	-0.08	5.	0.	55.	-0.
33121	DESØA3	DISTIL	-0.392	0.073	-0.392	0.502	0.22	-712.	-20.	4.	-577.	203.	13.	-0.79	4.	0.	58.	-6.
33121	DESØA3	DISTIL	-0.457	0.073	-0.457	0.589	0.22	-859.	-30.	4.	-696.	238.	16.	-0.83	5.	8.	57.	-8.
33121	DESØA3	RESIDU	-0.392	0.073	-0.392	0.502	0.22	-1530.	-104.	1.	-1392.	131.	26.	-2.71	4.	0.	52.	-3.
33121	DESØA3	RESIDU	-0.457	0.073	-0.457	0.589	0.22	-1842.	-128.	0.	-1676.	154.	31.	-2.78	5.	8.	51.	-5.
33121	GTSØAD	DISTIL	-0.137	0.073	-0.137	0.198	0.12	-18.	22.	4.	22.	86.	6.	0.25	13.	0.	57.	-0.
33121	GTRA08	DISTIL	0.	-0.136	0.	0.098	0.19	-74.	-15.	0.	1.	113.	14.	0.28	18.	0.	51.	-0.
33121	GTRA12	DISTIL	0.	-0.125	0.	0.097	0.19	-70.	-12.	0.	2.	110.	13.	0.27	17.	0.	51.	-0.
33121	GTRA16	DISTIL	0.	-0.113	0.	0.090	0.18	-65.	-8.	0.	1.	103.	13.	0.25	15.	0.	53.	-0.
33121	GTR208	DISTIL	0.	-0.090	0.	0.073	0.15	-55.	-2.	1.	-3.	87.	11.	0.21	14.	0.	56.	-0.
33121	GTR212	DISTIL	0.	-0.097	0.	0.079	0.16	-58.	-4.	1.	-2.	92.	11.	0.22	14.	0.	55.	-0.
33121	GTR216	DISTIL	0.	-0.098	0.	0.082	0.16	-59.	-4.	1.	-1.	94.	11.	0.23	14.	0.	55.	-0.
33121	GTRW08	DISTIL	0.	-0.177	0.	0.098	0.19	-90.	-27.	-1.	-2.	124.	16.	0.30	21.	0.	49.	-1.
33121	GTRW12	DISTIL	0.	-0.166	0.	0.106	0.21	-86.	-24.	-0.	2.	126.	16.	0.31	21.	0.	48.	-0.
33121	GTRW16	DISTIL	0.	-0.148	0.	0.099	0.20	-79.	-18.	-0.	1.	117.	15.	0.29	18.	0.	50.	-0.
33121	GTR308	DISTIL	0.	-0.140	0.	0.067	0.13	-75.	-16.	0.	-9.	97.	12.	0.22	17.	0.	54.	-1.
33121	GTR312	DISTIL	0.	-0.121	0.	0.087	0.17	-68.	-11.	0.	-1.	103.	13.	0.25	17.	0.	52.	-0.
33121	GTR316	DISTIL	0.	-0.119	0.	0.085	0.17	-67.	-10.	0.	-2.	101.	12.	0.25	16.	0.	53.	-0.
33121	FCPADS	DISTIL	0.	-0.289	0.	0.140	0.28	-61.	44.	4.	77.	278.	29.	0.84	19.	0.	56.	-7.
33121	FCPADS	DISTIL	0.	-0.293	0.	0.142	0.28	-62.	44.	4.	78.	282.	29.	0.85	19.	1.	56.	-7.
33121	FCMCDS	DISTIL	0.	-0.194	0.	0.150	0.30	-192.	44.	-0.	-81.	232.	20.	0.37	15.	0.	55.	-4.
33251	STM141	RESIDU	0.	-0.080	0.	0.132	0.06	-28.	41.	-4.	37.	143.	-9.	0.08	45.	0.	55.	3.
33251	STM141	COAL-F	0.	-0.080	0.	0.132	0.06	-28.	-48.	-4.	40.	68.	9.	0.05	15.	0.	46.	4.
33251	STM141	COAL-A	0.	-0.080	0.	0.132	0.06	68.	-48.	-4.	136.	68.	9.	0.10	35.	0.	44.	7.
33251	STMØ88	RESIDU	0.	-0.044	0.	0.072	0.03	-15.	55.	-2.	19.	106.	-12.	0.05	38.	0.	57.	1.
33251	STMØ88	COAL-F	0.	-0.044	0.	0.072	0.03	-15.	-26.	-2.	22.	37.	5.	0.03	8.	0.	48.	2.
33251	STMØ88	COAL-A	0.	-0.044	0.	0.072	0.03	72.	-26.	-2.	110.	37.	5.	0.07	26.	0.	45.	5.
33251	PFBSTM	COAL-P	0.	-0.180	0.	0.265	0.11	87.	-108.	10.	230.	136.	36.	0.18	41.	0.	42.	9.
33251	TISTMT	RESIDU	0.	-0.125	0.	0.196	0.08	-44.	23.	-6.	56.	184.	-7.	0.10	-24.	0.	63.	-6.
33251	TISTMT	COAL	0.	-0.246	0.	0.387	0.16	-86.	-148.	-12.	118.	199.	25.	0.15	-87.	0.	56.	-4.
33251	TIHRSG	RESIDU	0.	-0.139	0.	0.082	0.03	-49.	17.	-7.	19.	123.	-14.	0.06	-34.	0.	66.	-10.
33251	TIHRSG	COAL	0.	-0.274	0.	0.162	0.07	-96.	-165.	-14.	44.	74.	12.	0.06	-109.	0.	61.	-11.
33251	STIRL	DISTIL	0.	-0.257	0.	0.191	0.08	-16.	44.	8.	129.	289.	34.	0.20	37.	0.	62.	-5.
33251	STIRL	RESIDU	0.	-0.257	0.	0.191	0.08	-90.	-30.	-20.	49.	196.	-18.	0.10	37.	0.	55.	0.
33251	STIRL	COAL	0.	-0.508	0.	0.377	0.16	-178.	-305.	-25.	107.	179.	27.	0.14	-15.	0.	47.	6.
33251	HEGT60	COAL-A	0.	-1.884	0.	0.117	0.05	-274.	-1130.	-94.	369.	-36.	24.	0.16	-2.	0.	49.	-1.
33251	HEGT60	COAL-A	0.	-2.304	0.	0.143	0.05	-357.	-1382.	-115.	430.	-44.	30.	0.16	-49.	42.	54.	-13.
33251	HEGT00	COAL-A	0.	-0.579	0.	0.135	0.06	-44.	-347.	-29.	186.	43.	13.	0.11	-1.	0.	48.	2.
33251	FCMCCL	COAL	0.	-0.932	0.	0.299	0.13	127.	218.	15.	523.	891.	88.	0.68	31.	0.	44.	7.
33251	FCSTCL	COAL	0.	-1.065	0.	0.505	0.21	127.	218.	15.	632.	1077.	108.	0.82	50.	0.	39.	13.
33251	TGGTST	COAL	0.	-0.966	0.	0.076	0.03	-338.	-579.	12.	-3.	-10.	73.	0.03	28.	0.	44.	5.
33251	GTSØAR	RESIDU	-0.779	0.364	-0.779	1.070	0.12	-18.	-75.	12.	209.	311.	54.	0.26	77.	0.	49.	5.
33251	GTAC08	RESIDU	0.	-0.236	0.	0.270	0.11	-144.	-21.	-18.	15.	237.	-12.	0.11	64.	0.	51.	6.
33251	GTAC12	RESIDU	0.	-0.305	0.	0.333	0.14	-185.	-[illegible]	-24.	15.	280.	-13.	0.13	73.	0.	[illegible]	7.
33251	GTAr	RESIDU	0.	-0.366	0.	0.371	0.16	-222.	[illegible]	-28.	10.	308.	-14.	0.14	79.	0.	[illegible]	8.
33251	GTWc	RESIDU	0.	-0.400	0.	0.352	0.15	-242.	-87.	-31.	-6.	301.	-17.	0.13	84.	0.	47.	8.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
33251	CC1626	RESIDU	0.	-1.452	0.	0.548	0.23	-962.	-508.	-121.	-332.	531.	-75.	0.06	191.	0.	29.	10.
33251	CC1626	RESIDU	0.	-0.559	0.	0.458	0.19	-338.	-151.	-43.	-18.	378.	-20.	0.15	106.	0.	42.	10.
33251	CC1622	RESIDU	0.	-0.479	0.	0.431	0.18	-290.	-119.	-37.	-3.	354.	-17.	0.15	93.	0.	44.	9.
33251	CC1222	RESIDU	0.	-0.471	0.	0.431	0.18	-285.	-116.	-36.	-1.	353.	-16.	0.15	95.	0.	44.	9.
33251	CC0822	RESIDU	0.	-0.342	0.	0.361	0.15	-207.	-64.	-26.	13.	299.	-13.	0.13	82.	0.	47.	8.
33251	DEADV3	RESIDU	0.	-1.380	0.	0.621	0.26	-1305.	-479.	-105.	-675.	563.	-57.	-0.08	79.	0.	42.	-2.
33251	DEADV3	RESIDU	0.	-1.453	0.	0.654	0.26	-1386.	-509.	-111.	-722.	589.	-59.	-0.08	82.	10.	42.	-4.
33251	DEHTPM	RESIDU	0.	-0.358	0.	0.301	0.13	-346.	-70.	-28.	-139.	268.	-17.	0.05	30.	0.	54.	-0.
33251	DESOA3	DISTIL	-1.853	0.364	-1.853	2.364	0.22	-2578.	-83.	18.	-1949.	956.	63.	-0.42	33.	0.	56.	-27.
33251	DESOA3	DISTIL	-2.271	0.364	-2.271	2.926	0.22	-3523.	-151.	18.	-2715.	1183.	79.	-0.53	37.	53.	56.	-42.
33251	DESOA3	RESIDU	-1.853	0.364	-1.853	2.364	0.22	-5665.	-479.	3.	-5021.	615.	122.	-1.93	33.	0.	50.	-12.
33251	DESOA3	RESIDU	-2.271	0.364	-2.271	2.926	0.22	-7673.	-637.	0.	-6849.	765.	152.	-2.16	37.	53.	50.	-23.
33251	GTSOAD	DISTIL	-0.681	0.364	-0.681	0.985	0.13	53.	108.	18.	248.	427.	28.	0.32	75.	0.	55.	1.
33251	GTRA08	DISTIL	0.	-1.429	0.	0.571	0.24	-574.	-286.	-12.	70.	808.	106.	0.44	169.	0.	37.	-7.
33251	GTRA08	DISTIL	0.	-0.678	0.	0.485	0.20	-229.	-75.	0.	145.	561.	69.	0.35	104.	0.	48.	0.
33251	GTRA12	DISTIL	0.	-1.424	0.	0.576	0.24	-578.	-285.	-12.	66.	809.	106.	0.44	169.	0.	37.	-6.
33251	GTRA12	DISTIL	0.	-0.623	0.	0.481	0.20	-207.	-59.	1.	148.	545.	67.	0.34	100.	0.	48.	1.
33251	GTRA16	DISTIL	0.	-0.562	0.	0.448	0.19	-183.	-42.	2.	142.	510.	62.	0.32	90.	0.	50.	0.
33251	GTR208	DISTIL	0.	-0.448	0.	0.364	0.15	-137.	-10.	4.	124.	434.	52.	0.28	86.	0.	53.	1.
33251	GTR212	DISTIL	0.	-0.481	0.	0.391	0.17	-150.	-19.	4.	130.	457.	55.	0.29	89.	0.	52.	1.
33251	GTR216	DISTIL	0.	-0.487	0.	0.409	0.17	-153.	-21.	4.	136.	469.	57.	0.30	89.	0.	51.	1.
33251	GTRW08	DISTIL	0.	-1.459	0.	0.541	0.23	-570.	-295.	-13.	73.	799.	106.	0.44	183.	0.	36.	-6.
33251	GTRW08	DISTIL	0.	-0.881	0.	0.485	0.21	-310.	-132.	-3.	129.	615.	78.	0.37	126.	0.	45.	-2.
33251	GTRW12	DISTIL	0.	-1.394	0.	0.606	0.26	-545.	-277.	-12.	98.	817.	107.	0.46	183.	0.	35.	-3.
33251	GTRW12	DISTIL	0.	-0.827	0.	0.528	0.22	-289.	-117.	-2.	147.	624.	78.	0.38	125.	0.	44.	0.
33251	GTRW16	DISTIL	0.	-1.429	0.	0.571	0.24	-568.	-286.	-12.	75.	808.	106.	0.45	180.	0.	36.	-5.
33251	GTRW16	DISTIL	0.	-0.736	0.	0.491	0.21	-252.	-91.	-0.	143.	580.	72.	0.36	120.	0.	45.	1.
33251	GTR308	DISTIL	0.	-1.701	0.	0.300	0.13	-697.	-363.	-17.	-54.	731.	102.	0.35	188.	0.	40.	-16.
33251	GTR308	DISTIL	0.	-0.694	0.	0.331	0.14	-235.	-79.	0.	94.	461.	61.	0.29	105.	0.	51.	-3.
33251	GTR312	DISTIL	0.	-1.507	0.	0.493	0.21	-619.	-308.	-14.	25.	786.	105.	0.41	189.	0.	36.	-7.
33251	GTR312	DISTIL	0.	-0.601	0.	0.431	0.18	-198.	-53.	2.	134.	511.	63.	0.32	107.	0.	48.	1.
33251	GTR316	DISTIL	0.	-1.524	0.	0.476	0.20	-628.	-313.	-14.	16.	781.	105.	0.41	187.	0.	37.	-8.
33251	GTR316	DISTIL	0.	-0.593	0.	0.421	0.18	-195.	-51.	2.	131.	504.	62.	0.31	103.	0.	49.	1.
33251	FCPADS	DISTIL	0.	-1.348	0.	0.653	0.28	-220.	111.	12.	424.	1205.	130.	0.79	99.	0.	55.	-33.
33251	FCPADS	DISTIL	0.	-1.457	0.	0.706	0.28	-240.	119.	12.	456.	1301.	140.	0.80	106.	15.	55.	-37.
33251	FCMCDS	DISTIL	0.	-1.189	0.	0.811	0.34	-892.	134.	-6.	-248.	1228.	113.	0.49	89.	0.	52.	-25.
33251	FCMCDS	DISTIL	0.	-0.964	0.	0.746	0.32	-689.	117.	-2.	-139.	1053.	99.	0.46	79.	0.	53.	-20.
33254	STM141	RESIDU	0.	-0.006	0.	0.013	0.04	-18.	11.	-0.	-12.	20.	-2.	0.02	4.	0.	58.	-0.
33254	STM141	COAL-F	0.	-0.008	0.	0.013	0.04	-18.	-5.	-0.	-11.	7.	1.	-0.01	-1.	0.	49.	0.
33254	STM141	COAL-A	0.	-0.008	0.	0.013	0.04	-1.	-5.	-0.	6.	7.	1.	0.04	1.	0.	47.	0.
33254	STM088	RESIDU	0.	-0.004	0.	0.007	0.02	-17.	13.	-0.	-14.	17.	-3.	0.00	4.	0.	59.	-0.
33254	STM088	COAL-F	0.	-0.004	0.	0.007	0.02	-17.	-3.	-0.	-13.	4.	0.	-0.03	-1.	0.	50.	-0.
33254	STM088	COAL-A	0.	-0.004	0.	0.007	0.02	-1.	-3.	-0.	3.	4.	0.	0.02	1.	0.	48.	0.
33254	PFBSTM	COAL-P	0.	-0.018	0.	0.026	0.07	3.	-11.	2.	17.	13.	5.	0.11	-1.	0.	49.	0.
33254	TISTMT	RESIDU	0.	-0.025	0.	0.038	0.11	-24.	5.	-1.	-4.	36.	-1.	0.09	-15.	0.	72.	-3.
33254	TISTMT	COAL	0.	-0.025	0.	0.038	0.11	-24.	-15.	-1.	-4.	20.	3.	0.06	-24.	0.	68.	-2.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

TIME 1990 LEVEL ALL

TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	TOTAL OIL+GAS	FESR COAL	- - EMISSIONS SAVINGS - - - DIRECT NOX	SOX	PART	TOTAL NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER--- TOTAL EXPORT MWH	COST	LAEC SAVED
33254	TIHRSG	RESIDU	0.	-0.027	0.	0.016	0.05	-25.	3.	-1.	-12.	24.	-3.	0.03	-17.	0.	76.	-3.
33254	TIHRSG	COAL	0.	-0.027	0.	0.016	0.05	-25.	-16.	-1.	-11.	7.	1.	-0.01	-26.	0.	70.	-3.
33254	STIRL	DISTIL	0.	-0.051	0.	0.038	0.11	-18.	9.	2.	10.	57.	7.	0.23	7.	0.	59.	-1.
33254	STIRL	RESIDU	0.	-0.051	0.	0.038	0.11	-33.	-6.	-6.	-6.	39.	-5.	0.09	7.	0.	52.	0.
33254	STIRL	COAL	0.	-0.051	0.	0.038	0.11	-33.	-30.	-3.	-5.	18.	3.	0.05	-0.	0.	47.	1.
33254	HEGT60	COAL-A	0.	-0.230	0.	0.014	0.04	-45.	-138.	-11.	33.	-4.	3.	0.10	-26.	0.	71.	-3.
33254	HEGT00	COAL-A	0.	-0.058	0.	0.013	0.04	-14.	-35.	-3.	9.	4.	1.	0.05	-11.	0.	58.	-1.
33254	FCMCCL	COAL	0.	-0.058	0.	0.065	0.18	10.	43.	3.	49.	110.	11.	0.53	-9.	0.	53.	-0.
33254	FCSTCL	COAL	0.	-0.071	0.	0.086	0.24	10.	43.	3.	60.	129.	12.	0.63	-9.	0.	52.	0.
33254	IGGTST	COAL	0.	-0.061	0.	0.043	0.12	-37.	-37.	3.	-3.	20.	9.	0.08	-9.	0.	54.	-0.
33254	GTS0AR	RESIDU	-0.153	0.072	-0.153	0.211	0.16	-29.	-15.	2.	16.	61.	11.	0.27	12.	0.	45.	1.
33254	GTAC08	RESIDU	0.	-0.046	0.	0.053	0.15	-61.	-4.	-5.	-30.	47.	-4.	0.04	10.	0.	47.	1.
33254	GTAC12	RESIDU	0.	-0.060	0.	0.066	0.18	-69.	-10.	-6.	-30.	55.	-4.	0.06	12.	0.	44.	1.
33254	GTAC16	RESIDU	0.	-0.072	0.	0.073	0.20	-77.	-14.	-7.	-31.	61.	-5.	0.08	13.	0.	43.	1.
33254	GTWC16	RESIDU	0.	-0.079	0.	0.069	0.19	-81.	-17.	-8.	-34.	59.	-5.	0.06	13.	0.	43.	1.
33254	CC1626	RESIDU	0.	-0.110	0.	0.090	0.25	-99.	-30.	-10.	-36.	74.	-6.	0.10	16.	0.	38.	1.
33254	CC1622	RESIDU	0.	-0.094	0.	0.085	0.24	-90.	-23.	-9.	-34.	70.	-5.	0.10	15.	0.	40.	1.
33254	CC1222	RESIDU	0.	-0.093	0.	0.085	0.24	-89.	-23.	-9.	-33.	69.	-5.	0.10	15.	0.	39.	1.
33254	CC0822	RESIDU	0.	-0.067	0.	0.071	0.20	-74.	-13.	-7.	-30.	59.	-4.	0.08	12.	0.	43.	1.
33254	DEADV3	RESIDU	0.	-0.197	0.	0.089	0.25	-232.	-64.	-16.	-142.	84.	-10.	-0.21	10.	0.	43.	-1.
33254	DEADV3	RESIDU	0.	-0.286	0.	0.129	0.26	-330.	-100.	-24.	-200.	116.	-14.	-0.22	14.	12.	43.	-3.
33254	DEHTPM	RESIDU	0.	-0.070	0.	0.059	0.17	-125.	-14.	-7.	-85.	53.	-5.	-0.12	5.	0.	51.	-0.
33254	DES0A3	DISTIL	-0.284	0.072	-0.284	0.357	0.20	-472.	-3.	4.	-383.	145.	9.	-0.71	3.	0.	57.	-5.
33254	DES0A3	DISTIL	-0.447	0.072	-0.447	0.576	0.22	-840.	-30.	4.	-681.	233.	16.	-0.83	5.	21.	57.	-10.
33254	DES0A3	RESIDU	-0.284	0.072	-0.284	0.357	0.20	-1020.	-64.	1.	-928.	92.	18.	-2.54	3.	0.	51.	-2.
33254	DES0A3	RESIDU	-0.447	0.072	-0.447	0.576	0.22	-1802.	-125.	0.	-1640.	151.	30.	-2.78	5.	21.	51.	-6.
33254	GTS0AD	DISTIL	-0.134	0.072	-0.134	0.194	0.17	-17.	21.	4.	21.	84.	5.	0.34	12.	0.	51.	-0.
33254	GTRA08	DISTIL	0.	-0.134	0.	0.095	0.27	-72.	-15.	0.	1.	110.	14.	0.39	17.	0.	41.	-0.
33254	GTRA12	DISTIL	0.	-0.123	0.	0.095	0.27	-68.	-12.	0.	2.	107.	13.	0.38	16.	0.	42.	-0.
33254	GTRA16	DISTIL	0.	-0.111	0.	0.088	0.25	-63.	-8.	0.	1.	100.	12.	0.35	14.	0.	45.	-0.
33254	GTR208	DISTIL	0.	-0.088	0.	0.072	0.20	-54.	-2.	1.	-3.	85.	10.	0.29	13.	0.	48.	-0.
33254	GTR212	DISTIL	0.	-0.095	0.	0.077	0.22	-57.	-4.	1.	-2.	90.	11.	0.31	14.	0.	47.	-0.
33254	GTR216	DISTIL	0.	-0.096	0.	0.081	0.23	-57.	-4.	1.	-1.	92.	11.	0.32	14.	0.	47.	-0.
33254	GTRW08	DISTIL	0.	-0.174	0.	0.095	0.27	-88.	-26.	-1.	-2.	121.	15.	0.42	20.	0.	38.	-1.
33254	GTRW12	DISTIL	0.	-0.163	0.	0.104	0.29	-84.	-23.	-0.	2.	123.	15.	0.44	20.	0.	37.	-0.
33254	GTRW16	DISTIL	0.	-0.145	0.	0.097	0.27	-77.	-18.	-0.	1.	114.	14.	0.40	18.	0.	40.	-0.
33254	GTR308	DISTIL	0.	-0.137	0.	0.065	0.18	-74.	-16.	0.	-9.	95.	12.	0.31	16.	0.	46.	-1.
33254	GTR312	DISTIL	0.	-0.118	0.	0.085	0.24	-66.	-10.	0.	-1.	101.	12.	0.35	16.	0.	43.	-0.
33254	GTR316	DISTIL	0.	-0.117	0.	0.083	0.23	-66.	-10.	0.	-1.	99.	12.	0.34	16.	0.	44.	-0.
33254	FCPADS	DISTIL	0.	-0.193	0.	0.093	0.26	-43.	36.	3.	49.	193.	20.	0.82	13.	0.	56.	-5.
33254	FCPADS	DISTIL	0.	-0.287	0.	0.139	0.28	-60.	43.	4.	77.	276.	29.	0.85	19.	13.	56.	-9.
33254	FCMCDS	DISTIL	0.	-0.161	0.	0.125	0.35	-160.	40.	0.	-68.	196.	17.	0.45	12.	0.	51.	-4.
33254	FCMCDS	DISTIL	0.	-0.190	0.	0.147	0.36	-188.	43.	-0.	-79.	227.	20.	0.45	14.	5.	51.	-5.
33314	STM141	RESIDU	0.	-0.007	0.	0.011	0.09	-10.	[illegible]	-0.	-5.	13.	-1.	0.07	3.	0.	4	0.
33314	STM1	COAL-F	0.	-0.007	0.	0.011	0.09	-10.	[illegible]	-0.	-4.	6.	1.	0.02	-0.	0.	4	0.
33314	STM14	COAL-A	0.	-0.007	0.	0.011	0.09	-1.	-4.	-0.	5.	6.	1.	0.11	1.	0.	42.	0.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST LAEC SAVED
33314	STM088	RESIDU	0.	-0.005	0.	0.008	0.06	-9.	5.	-0.	-6.	11.	-1. 0.04		3.	0.	48.	0.
33314	STM088	COAL-F	0.	-0.005	0.	0.008	0.06	-9.	-3.	-0.	-5.	4.	0. -0.01		-0.	0.	46.	0.
33314	STM088	COAL-A	0.	-0.005	0.	0.008	0.06	-1.	-3.	-0.	3.	4.	0. 0.07		1.	0.	43.	0.
33314	PFBSTM	COAL-P	0.	-0.012	0.	0.018	0.15	1.	-7.	1.	11.	9.	3. 0.22		-1.	0.	46.	0.
33314	TISTMT	RESIDU	0.	-0.015	0.	0.025	0.21	-13.	1.	-1.	-1.	21.	-0. 0.19		-9.	0.	76.	-1.
33314	TISTMT	COAL	0.	-0.015	0.	0.025	0.21	-13.	-9.	-1.	-0.	13.	2. 0.13		-14.	0.	82.	-1.
33314	TIHRSG	RESIDU	0.	-0.011	0.	0.009	0.08	-12.	3.	-1.	-5.	13.	-1. 0.06		-9.	0.	81.	-1.
33314	TIHRSG	COAL	0.	-0.011	0.	0.009	0.08	-12.	-7.	-1.	-5.	5.	1. 0.00		-13.	0.	84.	-2.
33314	STIRL	DISTIL	0.	-0.028	0.	0.022	0.19	-10.	4.	1.	6.	31.	4. 0.39		5.	0.	41.	-0.
33314	STIRL	RESIDU	0.	-0.028	0.	0.022	0.19	-18.	-4.	-3.	-2.	22.	-3. 0.16		5.	0.	35.	0.
33314	STIRL	COAL	0.	-0.028	0.	0.022	0.19	-18.	-17.	-1.	-1.	11.	2. 0.11		1.	0.	37.	1.
33314	HEGT85	COAL-A	0.	-0.070	0.	0.012	0.10	-13.	-42.	-4.	13.	3.	1. 0.17		-17.	0.	97.	-2.
33314	HEGT85	COAL-A	0.	-0.215	0.	0.037	0.13	-41.	-129.	-11.	40.	9.	4. 0.20		-27.	16.	70.	-5.
33314	HEGT60	COAL-A	0.	-0.066	0.	0.016	0.13	-14.	-40.	-3.	13.	5.	2. 0.18		-13.	0.	84.	-1.
33314	HEGT60	COAL-A	0.	-0.068	0.	0.016	0.13	-14.	-41.	-3.	13.	5.	2. 0.19		-13.	0.	81.	-1.
33314	HEGT00	COAL-A	0.	-0.026	0.	0.008	0.07	-6.	-16.	-1.	5.	3.	1. 0.08		-6.	0.	63.	-1.
33314	FCMCCL	COAL	0.	-0.029	0.	0.033	0.28	5.	21.	2.	24.	55.	5. 0.81		-6.	0.	58.	-0.
33314	FCSTCL	COAL	0.	-0.037	0.	0.045	0.38	4.	20.	1.	30.	65.	6. 0.97		-7.	0.	60.	-0.
33314	FCSTCL	COAL	0.	-0.040	0.	0.049	0.39	5.	21.	2.	34.	70.	7. 1.00		-7.	1.	55.	-0.
33314	IGGTST	COAL	0.	-0.035	0.	0.027	0.23	-20.	-21.	1.	-0.	13.	5. 0.17		-6.	0.	60.	-0.
33314	GTSOAR	RESIDU	-0.072	0.036	-0.072	0.101	0.25	-13.	-6.	1.	8.	30.	5. 0.41		5.	0.	31.	0.
33314	GTAC08	RESIDU	0.	-0.023	0.	0.027	0.23	-31.	-2.	-3.	-15.	23.	-2. 0.06		5.	0.	32.	1.
33314	GTAC12	RESIDU	0.	-0.030	0.	0.033	0.28	-35.	-5.	-3.	-15.	28.	-2. 0.10		6.	0.	27.	1.
33314	GTAC16	RESIDU	0.	-0.035	0.	0.037	0.31	-37.	-7.	-4.	-15.	30.	-2. 0.12		6.	0.	25.	1.
33314	GTWC16	RESIDU	0.	-0.039	0.	0.035	0.29	-40.	-9.	-4.	-17.	30.	-3. 0.10		6.	0.	26.	1.
33314	CC1626	RESIDU	0.	-0.044	0.	0.038	0.32	-41.	-11.	-4.	-15.	32.	-2. 0.14		5.	0.	28.	0.
33314	CC1626	RESIDU	0.	-0.061	0.	0.052	0.35	-53.	-17.	-6.	-18.	42.	-3. 0.16		3.	3.	27.	0.
33314	CC1622	RESIDU	0.	-0.042	0.	0.040	0.34	-40.	-10.	-4.	-15.	33.	-2. 0.15		6.	0.	26.	0.
33314	CC1622	RESIDU	0.	-0.053	0.	0.049	0.36	-48.	-14.	-5.	-16.	39.	-2. 0.17		7.	2.	25.	1.
33314	CC1222	RESIDU	0.	-0.042	0.	0.040	0.34	-40.	-10.	-4.	-14.	33.	-2. 0.16		6.	0.	25.	1.
33314	CC1222	RESIDU	0.	-0.052	0.	0.049	0.36	-48.	-14.	-5.	-16.	39.	-2. 0.17		7.	2.	24.	1.
33314	CC0822	RESIDU	0.	-0.038	0.	0.042	0.35	-40.	-8.	-4.	-14.	33.	-2. 0.16		6.	0.	22.	1.
33314	STIG15	RESIDU	0.	-0.068	0.	0.014	0.12	-49.	-20.	-2.	-23.	22.	-1. -0.02		5.	0.	41.	-1.
33314	STIG15	RESIDU	0.	-2.309	0.	0.483	0.17	-1402.	-916.	-69.	-521.	540.	3. 0.01		180.	254.	38.	-38.
33314	STIG10	RESIDU	0.	-0.062	0.	0.020	0.17	-48.	-18.	-2.	-22.	24.	-1. 0.02		5.	0.	36.	-0.
33314	STIG10	RESIDU	0.	-0.194	0.	0.064	0.22	-133.	-70.	-5.	-52.	64.	1. 0.05		17.	17.	35.	-2.
33314	STIG1S	RESIDU	0.	-0.059	0.	0.023	0.20	-48.	-16.	-1.	-22.	26.	-0. 0.03		6.	0.	33.	-0.
33314	STIG1S	RESIDU	0.	-0.109	0.	0.043	0.23	-82.	-36.	-3.	-34.	42.	1. 0.05		11.	7.	32.	-1.
33314	DEADV3	RESIDU	0.	-0.054	0.	0.028	0.24	-69.	-14.	-5.	-43.	28.	-3. -0.18		3.	0.	39.	-0.
33314	DEADV3	RESIDU	0.	-0.112	0.	0.059	0.29	-136.	-38.	-10.	-82.	52.	-5. -0.19		7.	8.	38.	-1.
33314	DEHTPM	RESIDU	0.	-0.035	0.	0.038	0.32	-63.	-7.	-4.	-40.	31.	-2. -0.11		3.	0.	33.	0.
33314	DESOA3	DISTIL	-0.094	0.036	-0.094	0.118	0.20	-134.	6.	2.	-108.	48.	3. -0.55		2.	0.	49.	-1.
33314	DESOA3	DISTIL	-0.177	0.036	-0.177	0.236	0.25	-332.	-7.	2.	-269.	97.	7. -0.78		3.	11.	51.	-4.
33314	DESOA3	RESIDU	-0.094	0.036	-0.094	0.118	0.20	-292.	-14.	1.	-266.	31.	6. -2.19		2.	0.	44.	-1.
33314	DESOA3	RESIDU	-0.177	0.036	-0.177	0.236	0.25	-714.	-45.	0.	-649.	64.	12. -2.68		3.	11.	45.	-2.
33314	GTSOAD	DISTIL	-0.066	0.036	-0.066	0.096	0.26	-8.	11.	2.	11.	42.	3. 0.53		6.	0.	33.	0.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
33314	GTRA08	DISTIL	0.	-0.044	0.	0.038	0.32	-26.	-1.	0.	0.	44.	5.	0.47	5.	0.	32.	-0.
33314	GTRA08	DISTIL	0.	-0.055	0.	0.046	0.34	-31.	-4.	0.	1.	51.	6.	0.48	6.	2.	30.	-0.
33314	GTRA12	DISTIL	0.	-0.043	0.	0.039	0.33	-26.	-1.	0.	1.	44.	5.	0.48	5.	0.	32.	-0.
33314	GTRA12	DISTIL	0.	-0.052	0.	0.046	0.35	-30.	-3.	0.	1.	51.	6.	0.49	6.	2.	30.	-0.
33314	GTRA16	DISTIL	0.	-0.043	0.	0.039	0.33	-26.	-1.	0.	0.	44.	5.	0.48	5.	0.	32.	-0.
33314	GTRA16	DISTIL	0.	-0.048	0.	0.043	0.34	-29.	-2.	0.	1.	48.	6.	0.48	6.	1.	30.	-0.
33314	GTR208	DISTIL	0.	-0.040	0.	0.036	0.30	-25.	0.	1.	-1.	42.	5.	0.44	6.	0.	30.	0.
33314	GTR212	DISTIL	0.	-0.043	0.	0.038	0.32	-27.	-1.	0.	-1.	44.	5.	0.46	6.	0.	28.	0.
33314	GTR216	DISTIL	0.	-0.043	0.	0.039	0.33	-26.	-1.	0.	-0.	44.	5.	0.48	5.	0.	29.	-0.
33314	GTR216	DISTIL	0.	-0.043	0.	0.040	0.34	-27.	-1.	0.	0.	45.	5.	0.48	6.	0.	28.	0.
33314	GTRW08	DISTIL	0.	-0.050	0.	0.032	0.27	-28.	-3.	0.	-1.	42.	5.	0.44	5.	0.	36.	-1.
33314	GTRW08	DISTIL	0.	-0.074	0.	0.046	0.30	-39.	-9.	-0.	-0.	56.	7.	0.45	7.	4.	35.	-1.
33314	GTRW12	DISTIL	0.	-0.048	0.	0.034	0.29	-27.	-2.	0.	-0.	43.	5.	0.46	5.	0.	35.	-0.
33314	GTRW12	DISTIL	0.	-0.071	0.	0.051	0.32	-38.	-9.	-0.	1.	58.	7.	0.47	7.	4.	33.	-1.
33314	GTRW16	DISTIL	0.	-0.048	0.	0.035	0.29	-27.	-2.	0.	-0.	43.	5.	0.46	4.	0.	35.	-0.
33314	GTRW16	DISTIL	0.	-0.065	0.	0.048	0.32	-36.	-7.	0.	1.	55.	7.	0.47	7.	3.	34.	-1.
33314	GTR308	DISTIL	0.	-0.053	0.	0.029	0.25	-30.	-3.	0.	-4.	41.	5.	0.41	5.	0.	35.	-1.
33314	GTR308	DISTIL	0.	-0.059	0.	0.033	0.26	-33.	-5.	0.	-4.	45.	6.	0.42	6.	1.	33.	-1.
33314	GTR312	DISTIL	0.	-0.047	0.	0.035	0.30	-27.	-2.	0.	-1.	43.	5.	0.46	5.	0.	32.	-0.
33314	GTR312	DISTIL	0.	-0.056	0.	0.042	0.31	-32.	-4.	0.	-0.	49.	6.	0.46	7.	2.	31.	-0.
33314	GTR316	DISTIL	0.	-0.047	0.	0.035	0.30	-27.	-2.	0.	-1.	43.	5.	0.45	5.	0.	33.	-0.
33314	GTR316	DISTIL	0.	-0.055	0.	0.041	0.31	-32.	-4.	0.	-1.	49.	6.	0.46	6.	1.	32.	-0.
33314	FCPADS	DISTIL	0.	-0.055	0.	0.027	0.23	-14.	15.	1.	13.	60.	6.	0.76	4.	0.	51.	-2.
33314	FCPADS	DISTIL	0.	-0.143	0.	0.069	0.28	-30.	22.	2.	38.	138.	14.	0.85	9.	12.	53.	-5.
33314	FCMCDS	DISTIL	0.	-0.046	0.	0.036	0.30	-48.	16.	1.	-21.	61.	5.	0.44	4.	0.	45.	-1.
33314	FCMCDS	DISTIL	0.	-0.095	0.	0.073	0.36	-94.	21.	-0.	-40.	113.	10.	0.45	7.	8.	47.	-3.
33315	STM141	RESIDU	0.	-0.010	0.	0.016	0.08	-15.	7.	-0.	-7.	19.	-1.	0.06	4.	0.	50.	0.
33315	STM141	COAL-F	0.	-0.010	0.	0.016	0.08	-15.	-6.	-0.	-7.	8.	1.	0.01	-0.	0.	45.	0.
33315	STM141	COAL-A	0.	-0.010	0.	0.016	0.08	-1.	-6.	-0.	7.	8.	1.	0.09	1.	0.	42.	1.
33315	STM088	RESIDU	0.	-0.007	0.	0.011	0.06	-14.	8.	-0.	-9.	16.	-2.	0.03	4.	0.	51.	-0.
33315	STM088	COAL-F	0.	-0.007	0.	0.011	0.06	-14.	-4.	-0.	-8.	6.	1.	-0.01	-0.	0.	46.	0.
33315	STM088	COAL-A	0.	-0.007	0.	0.011	0.06	-1.	-4.	-0.	5.	6.	1.	0.06	1.	0.	43.	0.
33315	PFBSTM	COAL-P	0.	-0.017	0.	0.027	0.13	2.	-10.	2.	16.	14.	4.	0.19	-1.	0.	45.	0.
33315	TISTMT	RESIDU	0.	-0.023	0.	0.037	0.18	-20.	2.	-1.	-1.	32.	-1.	0.17	-12.	0.	71.	-2.
33315	TISTMT	COAL	0.	-0.023	0.	0.037	0.18	-20.	-14.	-1.	-0.	19.	2.	0.11	-18.	0.	72.	-2.
33315	TIHRSG	RESIDU	0.	-0.017	0.	0.014	0.07	-18.	4.	-1.	-8.	19.	-2.	0.05	-12.	0.	76.	-2.
33315	TIHRSG	COAL	0.	-0.017	0.	0.014	0.07	-18.	-10.	-1.	-8.	7.	1.	0.00	-18.	0.	74.	-2.
33315	STIRL	DISTIL	0.	-0.042	0.	0.033	0.16	-15.	5.	1.	9.	47.	6.	0.34	6.	0.	48.	-0.
33315	STIRL	RESIDU	0.	-0.042	0.	0.033	0.16	-26.	-6.	-5.	-3.	32.	-4.	0.14	6.	0.	42.	0.
33315	STIRL	COAL	0.	-0.042	0.	0.033	0.16	-26.	-25.	-2.	-2.	16.	2.	0.09	0.	0.	41.	1.
33315	HEGT85	COAL-A	0.	-0.129	0.	0.021	0.10	-24.	-77.	-6.	24.	5.	2.	0.17	-24.	0.	84.	-3.
33315	HEGT85	COAL-A	0.	-0.333	0.	0.055	0.12	-63.	-200.	-17.	62.	12.	6.	0.20	-33.	22.	65.	-6.
33315	HEGT60	COAL-A	0.	-0.104	0.	0.024	0.12	-21.	-62.	-5.	20.	8.	2.	0.16	-17.	0.	70.	-2.
33315	HEGT00	COAL-A	0.	-0.040	0.	0.012	0.06	-10.	-24	-2.	7.	4.	1.	0.07	-8.	0.	5	-1.
33315	FCMCC	COAL	0.	-0.043	0.	0.049	0.24	7.		2.	37.	82.	8.	0.70	-8.	0.	5	-0.
33315	FCST.	COAL	0.	-0.060	0.	0.074	0.36	7.	5.	2.	50.	105.	10.	0.91	-8.	0.	50.	0.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT***** OIL+GAS	COAL	TOTAL OIL+GAS	COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	SOX	PART	TOTAL NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
33315	IGGTST	COAL	0.	-0.052	0.	0.040	0.20	-30.	-31.	2.	-0.	19.	8.	0.15	-7.	0.	53.	-0.
33315	GTSOAR	RESIDU	-0.108	0.054	-0.108	0.151	0.21	-20.	-8.	2.	12.	45.	8.	0.35	7.	0.	36.	1.
33315	GTAC08	RESIDU	0.	-0.035	0.	0.040	0.20	-46.	-3.	-4.	-23.	35.	-3.	0.05	7.	0.	38.	1.
33315	GTAC12	RESIDU	0.	-0.045	0.	0.049	0.24	-52.	-7.	-5.	-22.	41.	-3.	0.09	8.	0.	34.	1.
33315	GTAC16	RESIDU	0.	-0.052	0.	0.055	0.27	-56.	-10.	-5.	-23.	45.	-3.	0.11	8.	0.	32.	1.
33315	GTWC16	RESIDU	0.	-0.059	0.	0.052	0.25	-61.	-13.	-6.	-26.	45.	-4.	0.08	8.	0.	33.	1.
33315	CC1626	RESIDU	0.	-0.081	0.	0.069	0.34	-72.	-22.	-7.	-25.	56.	-4.	0.15	10.	0.	27.	1.
33315	CC1626	RESIDU	0.	-0.091	0.	0.078	0.35	-80.	-26.	-8.	-27.	62.	-4.	0.16	12.	2.	26.	1.
33315	CC1622	RESIDU	0.	-0.078	0.	0.072	0.36	-72.	-20.	-7.	-24.	58.	-4.	0.16	10.	0.	25.	1.
33315	CC1622	RESIDU	0.	-0.079	0.	0.073	0.36	-72.	-21.	-7.	-24.	58.	-4.	0.17	11.	0.	25.	1.
33315	CC1222	RESIDU	0.	-0.077	0.	0.073	0.36	-71.	-20.	-7.	-24.	58.	-4.	0.17	11.	0.	24.	1.
33315	CC1222	RESIDU	0.	-0.077	0.	0.073	0.36	-71.	-20.	-7.	-24.	58.	-4.	0.17	11.	0.	24.	1.
33315	CC0822	RESIDU	0.	-0.057	0.	0.062	0.31	-59.	-12.	-6.	-22.	50.	-3.	0.14	9.	0.	30.	1.
33315	STIG15	RESIDU	0.	-0.124	0.	0.026	0.13	-87.	-39.	-4.	-40.	38.	-2.	-0.02	9.	0.	40.	-1.
33315	STIG15	RESIDU	0.	-3.463	0.	0.724	0.17	-2103.	-1374.	-103.	-782.	810.	4.	0.01	272.	379.	38.	-57.
33315	STIG10	RESIDU	0.	-0.113	0.	0.037	0.18	-85.	-34.	-3.	-38.	43.	-1.	0.02	10.	0.	35.	-0.
33315	STIG10	RESIDU	0.	-0.291	0.	0.096	0.22	-200.	-106.	-8.	-78.	96.	1.	0.05	26.	22.	34.	-3.
33315	STIG1S	RESIDU	0.	-0.108	0.	0.042	0.21	-85.	-32.	-3.	-38.	45.	-0.	0.04	10.	0.	33.	0.
33315	STIG1S	RESIDU	0.	-0.163	0.	0.064	0.23	-123.	-54.	-4.	-51.	63.	1.	0.05	16.	7.	32.	-1.
33315	DEADV3	RESIDU	0.	-0.098	0.	0.052	0.25	-124.	-29.	-8.	-77.	49.	-6.	-0.18	6.	0.	38.	-0.
33315	DEADV3	RESIDU	0.	-0.169	0.	0.089	0.29	-205.	-57.	-14.	-123.	78.	-8.	-0.19	9.	10.	38.	-1.
33315	DEHTPM	RESIDU	0.	-0.053	0.	0.056	0.27	-94.	-10.	-5.	-60.	46.	-3.	-0.09	5.	0.	37.	1.
33315	DESOA3	DISTIL	-0.160	0.054	-0.160	0.204	0.21	-247.	6.	3.	-199.	84.	5.	-0.61	3.	0.	51.	-2.
33315	DESOA3	DISTIL	-0.267	0.054	-0.267	0.355	0.25	-501.	-11.	3.	-406.	146.	10.	-0.78	4.	14.	51.	-5.
33315	DESOA3	RESIDU	-0.160	0.054	-0.160	0.204	0.21	-535.	-28.	1.	-487.	54.	10.	-2.33	3.	0.	45.	-1.
33315	DESOA3	RESIDU	-0.267	0.054	-0.267	0.355	0.25	-1076.	-68.	1.	-979.	97.	18.	-2.68	4.	14.	46.	-3.
33315	GTSOAD	DISTIL	-0.099	0.054	-0.099	0.144	0.22	-13.	16.	3.	16.	63.	4.	0.45	8.	0.	40.	0.
33315	GTRA06	DISTIL	0.	-0.081	0.	0.069	0.34	-47.	-6.	0.	2.	76.	9.	0.48	10.	0.	31.	-0.
33315	GTRA08	DISTIL	0.	-0.082	0.	0.070	0.34	-47.	-6.	0.	2.	77.	9.	0.48	10.	0.	30.	0.
33315	GTRA12	DISTIL	0.	-0.078	0.	0.069	0.34	-46.	-5.	0.	2.	76.	9.	0.48	10.	0.	31.	0.
33315	GTRA16	DISTIL	0.	-0.072	0.	0.065	0.32	-43.	-3.	1.	1.	72.	9.	0.45	9.	0.	34.	-0.
33315	GTR208	DISTIL	0.	-0.060	0.	0.054	0.26	-38.	0.	1.	-2.	62.	7.	0.38	8.	0.	37.	-0.
33315	GTR212	DISTIL	0.	-0.064	0.	0.057	0.28	-40.	-1.	1.	-1.	66.	8.	0.40	9.	0.	36.	-0.
33315	GTR216	DISTIL	0.	-0.065	0.	0.060	0.29	-40.	-1.	1.	-0.	67.	8.	0.41	8.	0.	35.	0.
33315	GTRW08	DISTIL	0.	-0.092	0.	0.058	0.28	-50.	-9.	0.	-1.	73.	9.	0.45	9.	0.	35.	-1.
33315	GTRW08	DISTIL	0.	-0.111	0.	0.070	0.30	-59.	-14.	-0.	-1.	85.	11.	0.45	12.	3.	34.	-1.
33315	GTRW12	DISTIL	0.	-0.088	0.	0.062	0.30	-48.	-8.	0.	1.	75.	9.	0.46	9.	0.	34.	-0.
33315	GTRW12	DISTIL	0.	-0.107	0.	0.076	0.32	-57.	-13.	-0.	2.	87.	11.	0.47	12.	3.	33.	-1.
33315	GTRW16	DISTIL	0.	-0.087	0.	0.063	0.31	-48.	-7.	0.	0.	75.	9.	0.46	9.	0.	34.	-0.
33315	GTRW16	DISTIL	0.	-0.098	0.	0.071	0.32	-54.	-11.	0.	1.	82.	10.	0.47	11.	2.	33.	-0.
33315	GTR308	DISTIL	0.	-0.069	0.	0.049	0.24	-50.	-8.	0.	-5.	68.	8.	0.39	10.	0.	36.	-1.
33315	GTR312	DISTIL	0.	-0.084	0.	0.063	0.31	-48.	-7.	0.	-0.	74.	9.	0.45	10.	0.	31.	-0.
33315	GTR316	DISTIL	0.	-0.083	0.	0.062	0.30	-48.	-6.	0.	-1.	73.	9.	0.45	10.	0.	33.	-0.
33315	FCPADS	DISTIL	0.	-0.101	0.	0.049	0.24	-24.	24.	2.	24.	106.	11.	0.78	7.	0.	52.	-3.
33315	FCPADS	DISTIL	0.	-0.215	0.	0.104	0.28	-45.	32.	3.	58.	207.	22.	0.85	13.	16.	53.	-7.
33315	FCMCDS	DISTIL	0.	-0.085	0.	0.066	0.32	-86.	26.	1.	-38.	108.	9.	0.44	6.	0.	47.	-2.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT ***** OIL+GAS	COAL	TOTAL OIL+GAS	COAL	FESR	EMISSIONS SAVINGS - - - DIRECT - - - NOX	SOX	PART	TOTAL NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
33315	FCMCDS	DISTIL	0.	-0.142	0.	0.110	0.36	-141.	32.	-0.	-60.	170.	15.	0.45	10.	10.	48.	-4.
33316	STM141	RESIDU	0.	-0.010	0.	0.016	0.09	-15.	7.	-0.	-7.	19.	-1.	0.06	4.	0.	48.	0.
33316	STM141	COAL-F	0.	-0.010	0.	0.016	0.09	-15.	-6.	-0.	-7.	8.	1.	0.02	-0.	0.	45.	0.
33316	STM141	COAL-A	0.	-0.010	0.	0.016	0.09	-1.	-6.	-0.	7.	8.	1.	0.10	1.	0.	41.	1.
33316	STM088	RESIDU	0.	-0.007	0.	0.011	0.06	-14.	8.	-0.	-9.	16.	-2.	0.04	4.	0.	50.	-0.
33316	STM088	COAL-F	0.	-0.007	0.	0.011	0.06	-14.	-4.	-0.	-8.	6.	1.	-0.01	-0.	0.	46.	0.
33316	STM088	COAL-A	0.	-0.007	0.	0.011	0.06	-1.	-4.	-0.	5.	6.	1.	0.07	1.	0.	43.	0.
33316	PFBSTM	COAL-P	0.	-0.017	0.	0.027	0.15	2.	-10.	2.	16.	14.	4.	0.21	-1.	0.	45.	0.
33316	TISTMT	RESIDU	0.	-0.023	0.	0.037	0.20	-20.	2.	-1.	-1.	32.	-1.	0.18	-12.	0.	72.	-2.
33316	TISTMT	COAL	0.	-0.023	0.	0.037	0.20	-20.	-14.	-1.	-0.	19.	2.	0.13	-18.	0.	76.	-2.
33316	TIHRSG	RESIDU	0.	-0.017	0.	0.014	0.08	-18.	4.	-1.	-8.	19.	-2.	0.06	-12.	0.	78.	-2.
33316	TIHRSG	COAL	0.	-0.017	0.	0.014	0.08	-18.	-10.	-1.	-8.	7.	1.	0.00	-18.	0.	78.	-2.
33316	STIRL	DISTIL	0.	-0.042	0.	0.033	0.18	-15.	5.	1.	9.	47.	6.	0.38	6.	0.	44.	-0.
33316	STIRL	RESIDU	0.	-0.042	0.	0.033	0.18	-26.	-6.	-5.	-3.	32.	-4.	0.16	6.	0.	39.	0.
33316	STIRL	COAL	0.	-0.042	0.	0.033	0.18	-26.	-25.	-2.	-2.	16.	2.	0.10	0.	0.	41.	1.
33316	HEGT85	COAL-A	0.	-0.112	0.	0.018	0.10	-21.	-67.	-6.	21.	4.	2.	0.17	-22.	0.	87.	-3.
33316	HEGT85	COAL-A	0.	-0.333	0.	0.055	0.12	-63.	-200.	-17.	62.	12.	6.	0.20	-33.	24.	65.	-7.
33316	HEGT60	COAL-A	0.	-0.104	0.	0.024	0.13	-21.	-62.	-5.	20.	8.	2.	0.18	-17.	0.	74.	-2.
33316	HEGT00	COAL-A	0.	-0.040	0.	0.012	0.06	-10.	-24.	-2.	7.	4.	1.	0.07	-8.	0.	59.	-1.
33316	FCMCCL	COAL	0.	-0.043	0.	0.049	0.27	7.	32.	2.	37.	82.	8.	0.78	-8.	0.	54.	-0.
33316	FCSTCL	COAL	0.	-0.058	0.	0.072	0.39	7.	31.	2.	49.	102.	10.	0.99	-8.	0.	53.	0.
33316	FCSTCL	COAL	0.	-0.060	0.	0.074	0.39	7.	32.	2.	50.	105.	10.	1.00	-8.	0.	51.	0.
33316	IGGTST	COAL	0.	-0.052	0.	0.040	0.22	-30.	-31.	2.	-0.	19.	8.	0.16	-7.	0.	54.	-0.
33316	GTSGAR	RESIDU	-0.108	0.054	-0.108	0.151	0.24	-20.	-8.	2.	12.	45.	8.	0.40	7.	0.	33.	1.
33316	GTAC08	RESIDU	0.	-0.035	0.	0.040	0.22	-46.	-3.	-4.	-23.	35.	-3.	0.06	7.	0.	34.	1.
33316	GTAC12	RESIDU	0.	-0.045	0.	0.049	0.27	-52.	-7.	-5.	-22.	41.	-3.	0.10	8.	0.	30.	1.
33316	GTAC16	RESIDU	0.	-0.052	0.	0.055	0.30	-56.	-10.	-5.	-23.	45.	-3.	0.12	8.	0.	28.	1.
33316	GTWC16	RESIDU	0.	-0.059	0.	0.052	0.28	-61.	-13.	-6.	-26.	45.	-4.	0.09	8.	0.	28.	1.
33316	CC1626	RESIDU	0.	-0.070	0.	0.060	0.32	-64.	-17.	-6.	-23.	50.	-4.	0.14	9.	0.	28.	1.
33316	CC1626	RESIDU	0.	-0.091	0.	0.078	0.35	-80.	-26.	-8.	-27.	62.	-4.	0.16	12.	4.	26.	1.
33316	CC1622	RESIDU	0.	-0.067	0.	0.063	0.34	-63.	-16.	-6.	-23.	51.	-4.	0.15	9.	0.	26.	1.
33316	CC1622	RESIDU	0.	-0.079	0.	0.073	0.36	-72.	-21.	-7.	-24.	58.	-4.	0.17	11.	2.	25.	1.
33316	CC1222	RESIDU	0.	-0.067	0.	0.063	0.34	-63.	-16.	-6.	-22.	52.	-3.	0.16	9.	0.	25.	1.
33316	CC1222	RESIDU	0.	-0.077	0.	0.073	0.36	-71.	-20.	-7.	-24.	58.	-4.	0.17	11.	2.	24.	1.
33316	CC0822	RESIDU	0.	-0.057	0.	0.062	0.34	-59.	-12.	-6.	-22.	50.	-3.	0.15	9.	0.	25.	1.
33316	STIG15	RESIDU	0.	-0.108	0.	0.022	0.12	-76.	-32.	-3.	-36.	34.	-2.	-0.02	8.	0.	40.	-1.
33316	STIG15	RESIDU	0.	-3.463	0.	0.724	0.17	-2103.	-1374.	-103.	-782.	810.	4.	0.01	272.	381.	38.	-57.
33316	STIG10	RESIDU	0.	-0.098	0.	0.032	0.18	-75.	-28.	-3.	-34.	38.	-1.	0.02	9.	0.	35.	-0.
33316	STIG10	RESIDU	0.	-0.291	0.	0.096	0.22	-200.	-106.	-8.	-78.	96.	1.	0.05	26.	24.	34.	-3.
33316	STIG1S	RESIDU	0.	-0.093	0.	0.037	0.20	-75.	-27.	-2.	-35.	40.	-0.	0.03	9.	0.	33.	-0.
33316	STIG1S	RESIDU	0.	-0.163	0.	0.064	0.23	-123.	-54.	-4.	-51.	63.	1.	0.05	16.	9.	32.	-1.
33316	DEADV3	RESIDU	0.	-0.085	0.	0.045	0.24	-109.	-23.	-7.	-68.	44.	-5.	-0.18	5.	0.	38.	-0.
33316	DEADV3	RESIDU	0.	-0.169	0.	0.089	0.29	-205.	-57.	-14.	-123.	78.	-8.	-0.19	9.	12.	38.	-2.
33316	DEHTPM	RESIDU	0.	-0.053	0.	0.056	0.31	-94.	-10.	-5.	-60.	46.	-3.	-0.10	5.	0.	34.	1.
33316	DESGA3	DISTIL	-0.146	0.054	-0.146	0.184	0.21	-212.	9.	3.	-172.	75.	5.	-0.56	3.	0.	50.	-2.
33316	DESGA3	DISTIL	-0.267	0.054	-0.267	0.355	0.25	-501.	-11.	3.	-406.	146.	10.	-0.78	4.	16.	51.	-6.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

COGENERATION REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LASC SAVED
33316	DESOA3	RESIDU	-0.146	0.054	-0.146	0.184	0.21	-463.	-23.	2.	-421.	48.	9.	-2.23	3.	0.	45.	-1.
33316	DESOA3	RESIDU	-0.267	0.054	-0.267	0.355	0.25	-1076.	-68.	1.	-979.	97.	18.	-2.68	4.	16.	55.	-3.
33316	GTSOAD	DISTIL	-0.099	0.054	-0.099	0.144	0.25	-13.	16.	3.	16.	63.	4.	0.51	8.	0.	36.	0.
33316	GTRA08	DISTIL	0.	-0.070	0.	0.060	0.32	-41.	-3.	1.	1.	68.	8.	0.48	8.	0.	32.	-0.
33316	GTRA08	DISTIL	0.	-0.082	0.	0.070	0.34	-47.	-6.	0.	2.	77.	9.	0.48	10.	2.	30.	-0.
33316	GTRA12	DISTIL	0.	-0.069	0.	0.061	0.33	-41.	-2.	1.	1.	69.	8.	0.48	8.	0.	31.	-0.
33316	GTRA12	DISTIL	0.	-0.078	0.	0.069	0.34	-46.	-5.	0.	2.	76.	9.	0.49	10.	2.	30.	-0.
33316	GTRA16	DISTIL	0.	-0.068	0.	0.062	0.34	-41.	-2.	1.	1.	69.	8.	0.48	8.	0.	31.	-0.
33316	GTRA16	DISTIL	0.	-0.072	0.	0.065	0.34	-43.	-3.	1.	1.	72.	9.	0.48	9.	1.	30.	-0.
33316	GTR208	DISTIL	0.	-0.060	0.	0.054	0.29	-38.	0.	1.	-2.	62.	7.	0.42	8.	0.	32.	-0.
33316	GTR212	DISTIL	0.	-0.064	0.	0.057	0.31	-40.	-1.	1.	-1.	66.	8.	0.45	9.	0.	31.	-0.
33316	GTR216	DISTIL	0.	-0.065	0.	0.060	0.33	-40.	-1.	1.	-0.	67.	8.	0.46	8.	0.	30.	0.
33316	GTRW08	DISTIL	0.	-0.080	0.	0.050	0.27	-44.	-5.	0.	-2.	66.	8.	0.44	8.	0.	36.	-1.
33316	GTRW08	DISTIL	0.	-0.111	0.	0.070	0.30	-59.	-14.	-0.	-1.	85.	11.	0.45	12.	5.	34.	-1.
33316	GTRW12	DISTIL	0.	-0.076	0.	0.054	0.29	-42.	-4.	0.	-0.	67.	8.	0.46	8.	0.	34.	-1.
33316	GTRW12	DISTIL	0.	-0.107	0.	0.076	0.32	-57.	-13.	-0.	2.	87.	11.	0.47	12.	5.	33.	-1.
33316	GTRW16	DISTIL	0.	-0.075	0.	0.055	0.30	-42.	-4.	0.	-0.	67.	8.	0.46	8.	0.	35.	-1.
33316	GTRW16	DISTIL	0.	-0.098	0.	0.071	0.32	-54.	-11.	0.	1.	82.	10.	0.47	11.	4.	33.	-1.
33316	GTR308	DISTIL	0.	-0.084	0.	0.046	0.25	-47.	-6.	0.	-5.	65.	8.	0.41	9.	0.	34.	-1.
33316	GTR308	DISTIL	0.	-0.089	0.	0.049	0.26	-50.	-8.	0.	-5.	68.	8.	0.42	10.	1.	33.	-1.
33316	GTR312	DISTIL	0.	-0.074	0.	0.056	0.30	-43.	-4.	1.	-1.	67.	8.	0.46	9.	0.	32.	-0.
33316	GTR312	DISTIL	0.	-0.084	0.	0.063	0.31	-48.	-7.	0.	-0.	74.	9.	0.46	10.	2.	31.	-0.
33316	GTR316	DISTIL	0.	-0.075	0.	0.055	0.30	-43.	-4.	1.	-1.	67.	8.	0.46	8.	0.	33.	-0.
33316	GTR316	DISTIL	0.	-0.083	0.	0.062	0.31	-48.	-6.	0.	-1.	73.	9.	0.46	10.	1.	31.	-0.
33316	FCPADS	DISTIL	0.	-0.088	0.	0.042	0.23	-21.	23.	2.	20.	94.	10.	0.77	6.	0.	52.	-3.
33316	FCPADS	DISTIL	0.	-0.215	0.	0.104	0.28	-45.	32.	3.	58.	207.	22.	0.85	13.	18.	53.	-8.
33316	FCMCDS	DISTIL	0.	-0.073	0.	0.057	0.31	-75.	25.	1.	-33.	96.	8.	0.44	6.	0.	47.	-2.
33316	FCMCDS	DISTIL	0.	-0.142	0.	0.110	0.36	-141.	32.	-0.	-60.	170.	15.	0.45	10.	12.	48.	-4.
33	FCMCDS	DISTIL	-16.228	-69.227	-16.228	58.776	1.27	-70798.	-17632.	-1693.	-29955.	51017.	4078.	0.13	6584.	1676.	17246.	-581.
ALL	FCMCDS	DISTIL	**********	**********	840.510		14.96	**********			-20251.	-43330.	849019.	53964.	0.33108182.	123090.	130893.	-22305.

COAL-FIRED NOCOGENERATION PROCESS BOILER

6.1 - Fuel & Emissions Savings - Nationally

DATE 06/20/79 GENERAL ELECTRIC COMPANY PAGE 1

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	TOTAL COAL	TOTAL OIL+GAS	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
20	STM141	COAL-A	0.	-0.107	0.	0.177	0.43	39.	-88.	-5.	131.	71.	16.	0.41	-778.	9.	-1091.	-497.
22	STM141	COAL-A	0.	-0.004	0.	0.007	0.14	4.	-3.	-0.	8.	4.	0.	0.38	147.	0.	43.	26.
24	STM141	COAL-A	0.	-0.018	0.	0.250	0.82	-2.	-11.	-1.	84.	136.	15.	0.79	-2332.	2.	-665.	-265.
26	STM141	COAL-A	0.	-0.043	0.	0.071	0.13	26.	-26.	-2.	63.	37.	5.	0.39	1144.	1.	437.	304.
28	STM141	COAL-A	0.	-0.182	0.	0.302	0.51	214.	-115.	-9.	370.	150.	21.	0.32	4711.	16.	1841.	1091.
29	STM141	COAL-A	0.	-0.025	0.	0.041	0.10	30.	-15.	-1.	52.	21.	3.	0.35	671.	1.	258.	176.
33	STM141	COAL-A	0.	-0.006	0.	0.010	0.01	4.	-3.	-0.	9.	5.	1.	0.09	223.	0.	33.	47.
ALL	STM141	COAL-A	0.	-0.454	0.	1.010	0.19	370.	-307.	-23.	842.	498.	71.	0.34	4453.	36.	1006.	1037.
20	STM141	COAL-F	0.	-0.107	0.	0.177	0.43	-57.	-88.	-5.	35.	71.	16.	0.25	-2957.	9.	-1742.	-926.
22	STM141	COAL-F	0.	-0.004	0.	0.007	0.14	-2.	-3.	-0.	2.	4.	0.	0.21	73.	0.	25.	15.
24	STM141	COAL-F	0.	-0.018	0.	0.250	0.82	-7.	-11.	-1.	79.	136.	15.	0.77	-4768.	2.	-1366.	-718.
26	STM141	COAL-F	0.	-0.043	0.	0.071	0.13	-15.	-26.	-2.	22.	37.	5.	0.23	630.	1.	320.	239.
28	STM141	COAL-F	0.	-0.182	0.	0.302	0.51	-75.	-115.	-9.	81.	150.	21.	0.16	2186.	16.	1259.	766.
29	STM141	COAL-F	0.	-0.025	0.	0.041	0.10	-9.	-15.	-1.	13.	21.	3.	0.17	365.	1.	190.	139.
33	STM141	COAL-F	0.	-0.006	0.	0.010	0.01	-4.	-3.	-0.	1.	5.	1.	0.04	78.	0.	-1.	28.
ALL	STM141	COAL-F	0.	-0.454	0.	1.010	0.19	-198.	-307.	-23.	274.	498.	71.	0.18	-5170.	36.	-1547.	-536.
20	STM141	RESIDU	0.	-0.107	0.	0.177	0.43	-57.	1.	-5.	32.	147.	-2.	0.34	3899.	9.	59.	-343.
22	STM141	RESIDU	0.	-0.004	0.	0.007	0.14	-2.	2.	-0.	2.	8.	-1.	0.30	225.	0.	60.	2.
24	STM141	RESIDU	0.	-0.018	0.	0.250	0.82	-7.	-7.	-1.	79.	139.	14.	0.78	2703.	2.	673.	613.
26	STM141	RESIDU	0.	-0.043	0.	0.071	0.13	-15.	12.	-2.	20.	69.	-3.	0.32	1538.	1.	487.	101.
28	STM141	RESIDU	0.	-0.182	0.	0.302	0.51	-75.	154.	-9.	71.	379.	-33.	0.25	7331.	16.	1775.	-401.
29	STM141	RESIDU	0.	-0.025	0.	0.041	0.10	-9.	21.	-1.	11.	52.	-5.	0.27	924.	1.	307.	-43.
33	STM141	RESIDU	0.	-0.006	0.	0.010	0.01	-4.	4.	-0.	1.	11.	-1.	0.07	322.	0.	-138.	14.
ALL	STM141	RESIDU	0.	-0.454	0.	1.010	0.19	-198.	221.	-23.	254.	947.	-35.	0.27	19992.	36.	3793.	-66.
20	STM088	COAL-A	0.	-0.093	0.	0.155	0.38	45.	-81.	-5.	126.	58.	15.	0.38	-1155.	6.	-1187.	-469.
22	STM088	COAL-A	0.	-0.004	0.	0.006	0.11	4.	-2.	-0.	8.	3.	0.	0.35	136.	0.	38.	26.
24	STM088	COAL-A	0.	-0.005	0.	0.184	0.61	-1.	-3.	-0.	60.	101.	11.	0.58	-2989.	0.	-934.	-427.
26	STM088	COAL-A	0.	-0.032	0.	0.054	0.10	28.	-19.	-2.	56.	28.	3.	0.33	950.	0.	352.	252.
28	STM088	COAL-A	0.	-0.086	0.	0.142	0.24	148.	-55.	-4.	221.	70.	10.	0.28	2409.	6.	932.	568.
29	STM088	COAL-A	0.	-0.017	0.	0.029	0.07	33.	-10.	-1.	48.	15.	2.	0.30	568.	0.	205.	144.
33	STM088	COAL-A	0.	-0.004	0.	0.006	0.00	5.	-2.	-0.	8.	3.	0.	0.06	191.	0.	13.	36.
ALL	STM088	COAL-A	0.	-0.262	0.	0.626	0.12	286.	-189.	-13.	573.	301.	46.	0.30	121.	13.	-631.	141.
20	STM088	COAL-F	0.	-0.093	0.	0.155	0.38	-55.	-81.	-5.	26.	58.	15.	0.21	-2994.	6.	-1760.	-854.

ISE PEØ AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22	STM088	COAL-F	0.	-0.004	0.	0.006	0.11	-1.	-2.	-0.	2.	3.	0.	0.17	66.	0.	21.	16.
24	STM088	COAL-F	0.	-0.005	0.	0.184	0.61	-2.	-3.	-0.	59.	101.	11.	0.58	-4950.	0.	-1525.	-818.
26	STM088	COAL-F	0.	-0.032	0.	0.054	0.10	-11.	-19.	-2.	16.	28.	3.	0.18	489.	0.	249.	196.
28	STM088	COAL-F	0.	-0.086	0.	0.142	0.24	-39.	-55.	-4.	35.	70.	10.	0.12	998.	6.	614.	393.
29	STM088	COAL-F	0.	-0.017	0.	0.029	0.07	-6.	-10.	-1.	9.	15.	2.	0.12	286.	0.	145.	112.
33	STM088	COAL-F	0.	-0.004	0.	0.006	0.00	-3.	-2.	-0.	-0.	3.	0.	0.01	46.	0.	-21.	17.
ALL	STM088	COAL-F	0.	-0.262	0.	0.626	0.12	-128.	-189.	-13.	159.	301.	46.	0.14	-6592.	13.	-2476.	-1020.
20	STM088	RESIDU	0.	-0.093	0.	0.155	0.38	-55.	12.	-5.	22.	138.	-4.	0.31	4264.	6.	144.	-239.
22	STM088	RESIDU	0.	-0.004	0.	0.006	0.11	-1.	3.	-0.	2.	8.	-1.	0.27	227.	0.	60.	3.
24	STM088	RESIDU	0.	-0.005	0.	0.184	0.61	-2.	-1.	-0.	59.	102.	11.	0.58	2708.	0.	497.	564.
26	STM088	RESIDU	0.	-0.032	0.	0.054	0.10	-11.	17.	-2.	15.	59.	-4.	0.27	1419.	0.	411.	70.
28	STM088	RESIDU	0.	-0.086	0.	0.142	0.24	-39.	118.	-4.	28.	217.	-25.	0.21	4344.	6.	872.	-364.
29	STM088	RESIDU	0.	-0.017	0.	0.029	0.07	-6.	26.	-1.	7.	46.	-5.	0.22	831.	0.	250.	-74.
33	STM088	RESIDU	0.	-0.004	0.	0.006	0.00	-3.	6.	-0.	-0.	10.	-1.	0.04	319.	0.	-189.	4.
ALL	STM088	RESIDU	0.	-0.262	0.	0.626	0.12	-128.	196.	-13.	144.	629.	-31.	0.23	15352.	13.	2224.	-39.
20	PFBSTM	COAL-P	0.	-0.130	0.	0.211	0.52	51.	-99.	8.	162.	91.	32.	0.52	-4315.	17.	-2031.	-1178.
22	PFBSTM	COAL-P	0.	-0.006	0.	0.009	0.18	4.	-4.	1.	9.	5.	1.	0.49	71.	1.	24.	9.
24	PFBSTM	COAL-P	0.	-0.067	0.	0.227	0.75	-5.	-40.	-1.	90.	121.	16.	0.72	-4335.	11.	-1176.	-711.
26	PFBSTM	COAL-P	0.	-0.061	0.	0.095	0.17	30.	-36.	3.	80.	49.	13.	0.51	975.	6.	420.	235.
28	PFBSTM	COAL-P	0.	-0.501	0.	0.697	1.18	639.	-307.	80.	1025.	349.	152.	0.46	5325.	49.	2374.	1104.
29	PFBSTM	COAL-P	0.	-0.038	0.	0.058	0.14	32.	-23.	4.	63.	30.	10.	0.47	668.	5.	277.	137.
33	PFBSTM	COAL-P	0.	-0.012	0.	0.017	0.01	5.	-7.	1.	14.	9.	2.	0.17	207.	0.	39.	52.
ALL	PFBSTM	COAL-P	0.	-1.081	0.	1.744	0.33	1003.	-684.	127.	1914.	866.	301.	0.46	-1863.	118.	-95.	-466.
20	TISTMT	COAL	0.	-0.145	0.	0.231	0.56	-65.	-105.	-7.	57.	104.	19.	0.34	-24836.	22.	-6933.	-4042.
22	TISTMT	COAL	0.	-0.007	0.	0.011	0.20	-2.	-4.	-0.	3.	6.	1.	0.31	-397.	1.	-81.	-52.
24	TISTMT	COAL	0.	-0.086	0.	0.232	0.77	-31.	-52.	-4.	72.	122.	15.	0.65	-18718.	15.	-4508.	-2627.
26	TISTMT	COAL	0.	-0.071	0.	0.112	0.20	-25.	-42.	-4.	34.	58.	7.	0.35	-1823.	9.	-155.	-103.
28	TISTMT	COAL	0.	-0.366	0.	0.578	0.98	-137.	-226.	-18.	167.	292.	39.	0.27	-13905.	58.	-1867.	-1312.
29	TISTMT	COAL	0.	-0.044	0.	0.069	0.17	-15.	-26.	-2.	21.	36.	5.	0.29	-1010.	7.	-57.	-60.
33	TISTMT	COAL	0.	-0.015	0.	0.024	0.02	-7.	-9.	-1.	6.	12.	2.	0.13	-695.	0.	-148.	-44.
ALL	TISTMT	COAL	0.	-0.946	0.	1.621	0.30	-363.	-598.	-47.	464.	810.	111.	0.29	-79065.	145.	-17706.	-10614.
20	TISTMT	RESIDU	0.	-0.135	0.	0.216	0.53	-61.	-24.	-7.	50.	160.	3.	0.41	-15952.	20.	-4710.	-3125.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
22	TISTMT	RESIDU	0.	-0.007	0.	0.011	0.20	-2.	0.	-0.	3.	9.	-0.	0.39	-231.	1.	-47.	-59.
24	TISTMT	RESIDU	0.	-0.002	0.	0.003	0.01	-2.	0.	-0.	-0.	3.	-0.	0.02	216.	0.	-59.	39.
26	TISTMT	RESIDU	0.	-0.065	0.	0.103	0.19	-23.	2.	-3.	30.	88.	-2.	0.38	-875.	6.	-26.	-237.
28	TISTMT	RESIDU	0.	-0.350	0.	0.552	0.94	-131.	32.	-17.	150.	488.	-12.	0.34	-7592.	54.	-1345.	-2219.
29	TISTMT	RESIDU	0.	-0.044	0.	0.069	0.17	-15.	4.	-2.	20.	62.	-2.	0.37	-471.	7.	24.	-208.
33	TISTMT	RESIDU	0.	-0.014	0.	0.022	0.01	-7.	3.	-1.	4.	21.	-1.	0.12	-437.	0.	-363.	-90.
ALL	TISTMT	RESIDU	0.	-0.868	0.	1.374	0.26	-340.	24.	-43.	361.	1169.	-20.	0.36	-35654.	124.	-9182.	-8298.
20	TIHRSG	COAL	0.	-0.105	0.	0.123	0.30	-59.	-89.	-5.	15.	40.	13.	0.16	-34595.	5.	-8990.	-4823.
22	TIHRSG	COAL	0.	-0.006	0.	0.006	0.11	-2.	-4.	-0.	2.	3.	0.	0.15	-582.	0.	-131.	-74.
24	TIHRSG	COAL	0.	-0.089	0.	0.183	0.60	-32.	-53.	-4.	56.	95.	12.	0.52	-30459.	7.	-7286.	-4105.
26	TIHRSG	COAL	0.	-0.067	0.	0.056	0.10	-23.	-40.	-3.	16.	27.	4.	0.17	-2944.	1.	-543.	-264.
28	TIHRSG	COAL	0.	-1.355	0.	0.488	0.83	-490.	-820.	-68.	104.	189.	43.	0.16	-59962.	101.	-12652.	-8145.
29	TIHRSG	COAL	0.	-0.055	0.	0.030	0.07	-19.	-33.	-3.	8.	13.	2.	0.11	-1675.	3.	-302.	-187.
33	TIHRSG	COAL	0.	-0.016	0.	0.010	0.01	-7.	-10.	-1.	1.	4.	1.	0.04	-788.	0.	-196.	-86.
ALL	TIHRSG	COAL	0.	-2.242	0.	1.185	0.22	-838.	-1390.	-112.	266.	491.	100.	0.14	*******	155.	-39861.	-23417.
20	TIHRSG	RESIDU	0.	-0.093	0.	0.110	0.27	-54.	12.	-5.	9.	113.	-6.	0.26	-21856.	4.	-5800.	-3412.
22	TIHRSG	RESIDU	0.	-0.006	0.	0.006	0.11	-2.	2.	-0.	1.	7.	-1.	0.25	-368.	0.	-84.	-79.
24	TIHRSG	RESIDU	0.	-0.002	0.	0.001	0.00	-2.	0.	-0.	-1.	2.	-0.	0.01	235.	0.	-49.	52.
26	TIHRSG	RESIDU	0.	-0.056	0.	0.047	0.09	-20.	13.	-3.	12.	62.	-6.	0.22	-1527.	0.	-324.	-397.
28	TIHRSG	RESIDU	0.	-0.822	0.	0.292	0.50	-297.	9.	-41.	43.	543.	-76.	0.20	-23161.	60.	-5860.	-6568.
29	TIHRSG	RESIDU	0.	-0.055	0.	0.030	0.07	-19.	5.	-3.	6.	46.	-5.	0.22	-995.	3.	-199.	-366.
33	TIHRSG	RESIDU	0.	-0.015	0.	0.009	0.01	-7.	2.	-1.	-0.	13.	-1.	0.05	-516.	0.	-409.	-121.
ALL	TIHRSG	RESIDU	0.	-1.485	0.	0.699	0.13	-567.	62.	-74.	99.	1113.	-136.	0.21	-68188.	96.	-16005.	-15412.
20	STIRL	COAL	0.	-0.187	0.	0.183	0.45	-77.	-127.	-9.	43.	78.	16.	0.25	-558.	24.	-1148.	-791.
22	STIRL	COAL	0.	-0.011	0.	0.009	0.16	-4.	-6.	-1.	2.	4.	1.	0.23	14.	1.	11.	-4.
24	STIRL	COAL	0.	-0.159	0.	0.177	0.58	-56.	-95.	-8.	52.	88.	12.	0.47	-695.	18.	-298.	-260.
26	STIRL	COAL	0.	-0.112	0.	0.089	0.16	-39.	-67.	-6.	26.	43.	6.	0.25	-49.	11.	223.	65.
28	STIRL	COAL	0.	-0.633	0.	0.470	0.80	-231.	-386.	-32.	125.	218.	35.	0.20	-1280.	70.	933.	26.
29	STIRL	COAL	0.	-0.070	0.	0.051	0.12	-25.	-42.	-4.	14.	24.	4.	0.20	-150.	8.	111.	6.
33	STIRL	COAL	0.	-0.031	0.	0.023	0.01	-12.	-18.	-2.	5.	11.	2.	0.12	-79.	0.	-5.	37.
ALL	STIRL	COAL	0.	-1.556	0.	1.296	0.24	-574.	-961.	-78.	345.	603.	97.	0.21	-3618.	171.	-224.	-1181.
20	STIRL	DISTIL	0.	-0.176	0.	0.172	0.42	-27.	0.	4.	85.	192.	27.	0.60	5084.	22.	64.	-668.

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ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	TOTAL OIL+GAS	TOTAL COAL	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	********TOTAL******** NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22	STIRL	DISTIL	0.	-0.011	0.	0.009	0.16	-1.	1.	0.	5.	12.	1.	0.59	174.	1.	30.	-35.
24	STIRL	DISTIL	0.	-0.004	0.	0.003	0.01	-1.	1.	0.	1.	4.	0.	0.05	477.	0.	-70.	74.
26	STIRL	DISTIL	0.	-0.105	0.	0.083	0.15	-8.	13.	3.	52.	116.	14.	0.59	1254.	8.	316.	-262.
28	STIRL	DISTIL	0.	-0.608	0.	0.452	0.77	-46.	96.	18.	295.	676.	82.	0.55	6160.	67.	648.	-2264.
29	STIRL	DISTIL	0.	-0.070	0.	0.051	0.12	-4.	13.	2.	35.	79.	9.	0.58	635.	8.	165.	-280.
33	STIRL	DISTIL	0.	-0.028	0.	0.021	0.01	-4.	5.	1.	12.	31.	4.	0.24	401.	0.	-294.	-53.
ALL	STIRL	DISTIL	0.	-1.408	0.	1.111	0.21	-128.	180.	39.	683.	1562.	194.	0.55	19948.	149.	1207.	-4905.
20	STIRL	RESIDU	0.	-0.176	0.	0.172	0.42	-72.	-44.	-18.	37.	137.	-10.	0.32	5075.	22.	191.	-360.
22	STIRL	RESIDU	0.	-0.011	0.	0.009	0.16	-4.	-2.	-1.	2.	8.	-1.	0.31	174.	1.	38.	-16.
24	STIRL	RESIDU	0.	-0.004	0.	0.003	0.01	-2.	-0.	-0.	-0.	3.	-0.	0.02	477.	0.	9.	81.
26	STIRL	RESIDU	0.	-0.105	0.	0.083	0.15	-37.	-15.	-10.	22.	81.	-9.	0.30	1252.	8.	394.	-66.
28	STIRL	RESIDU	0.	-0.608	0.	0.452	0.77	-222.	-78.	-68.	108.	459.	-63.	0.26	6147.	67.	1404.	-1061.
29	STIRL	RESIDU	0.	-0.070	0.	0.051	0.12	-25.	-8.	-8.	13.	53.	-8.	0.27	633.	8.	216.	-138.
33	STIRL	RESIDU	0.	-0.028	0.	0.021	0.01	-12.	-3.	-2.	3.	21.	-2.	0.11	400.	0.	-157.	2.
ALL	STIRL	RESIDU	0.	-1.408	0.	1.111	0.21	-525.	-212.	-153.	261.	1071.	-130.	0.27	19913.	149.	2946.	-2192.
20	HEGT85	COAL-A	0.	-0.225	0.	0.158	0.39	-25.	-147.	-11.	98.	64.	14.	0.34	-14767.	27.	-4391.	-2656.
22	HEGT85	COAL-A	0.	-0.022	0.	0.005	0.10	-3.	-13.	-1.	6.	2.	1.	0.25	-155.	2.	-39.	-53.
24	HEGT85	COAL-A	0.	-0.062	0.	0.015	0.05	-11.	-37.	-3.	13.	5.	1.	0.28	-2111.	7.	-635.	-450.
26	HEGT85	COAL-A	0.	-0.251	0.	0.041	0.08	-41.	-151.	-13.	54.	9.	5.	0.22	-517.	25.	39.	-312.
28	HEGT85	COAL-A	0.	-0.363	0.	0.090	0.15	-55.	-220.	-18.	91.	28.	9.	0.25	-1890.	21.	-164.	-292.
33	HEGT85	COAL-A	0.	-0.051	0.	0.009	0.01	-10.	-31.	-3.	10.	2.	1.	0.20	-538.	4.	-107.	-105.
ALL	HEGT85	COAL-A	0.	-1.031	0.	0.335	0.06	-153.	-633.	-52.	287.	116.	32.	0.25	-21139.	91.	-5605.	-4092.
20	HEGT60	COAL-A	0.	-0.274	0.	0.127	0.31	-26.	-180.	-14.	103.	42.	13.	0.30	-16983.	26.	-5052.	-3025.
22	HEGT60	COAL-A	0.	-0.017	0.	0.005	0.09	-1.	-10.	-1.	6.	2.	0.	0.26	-187.	2.	-44.	-46.
24	HEGT60	COAL-A	0.	-0.239	0.	0.064	0.21	-43.	-143.	-12.	54.	22.	6.	0.27	-7892.	22.	-2079.	-1451.
26	HEGT60	COAL-A	0.	-0.196	0.	0.045	0.08	-23.	-118.	-10.	55.	14.	4.	0.25	-390.	17.	62.	-170.
28	HEGT60	COAL-A	0.	-0.512	0.	0.110	0.19	-60.	-313.	-26.	141.	28.	12.	0.22	-4111.	33.	-561.	-680.
29	HEGT60	COAL-A	0.	-0.174	0.	0.003	0.01	-24.	-105.	-9.	33.	-7.	2.	0.13	-114.	15.	41.	-201.
33	HEGT60	COAL-A	0.	-0.191	0.	0.012	0.01	-31.	-115.	-10.	34.	-3.	2.	0.15	-733.	3.	-205.	-139.
ALL	HEGT60	COAL-A	0.	-1.770	0.	0.405	0.08	-230.	-1086.	-89.	470.	108.	45.	0.23	-33566.	130.	-8651.	-6305.
20	HEGT00	COAL-A	0.	-0.215	0.	0.088	0.22	-4.	-152.	-11.	95.	17.	12.	0.25	-15415.	12.	-4458.	-2428.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR NOX	EMISSIONS SAVINGS DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22	HEGTOO	COAL-A	0.	-0.012	0.	0.004	0.07	1.	-7.	-1.	6.	1.	0.	0.24	-155.	1.	-35.	-29.
24	HEGTOO	COAL-A	0.	-0.194	0.	0.105	0.34	-35.	-116.	-10.	61.	47.	8.	0.38	-10559.	13.	-2623.	-1579.
26	HEGTOO	COAL-A	0.	-0.128	0.	0.037	0.07	-2.	-77.	-6.	51.	14.	3.	0.24	-330.	7.	42.	-37.
28	HEGTOO	COAL-A	0.	-2.040	0.	0.397	0.68	12.	-1232.	-102.	796.	102.	44.	0.29	-12208.	162.	-1498.	-2832.
29	HEGTOO	COAL-A	0.	-0.091	0.	0.020	0.05	2.	-55.	-5.	38.	6.	2.	0.21	28.	7.	84.	-32.
33	HEGTOO	COAL-A	0.	-0.034	0.	0.008	0.01	-4.	-21.	-2.	10.	3.	1.	0.09	-112.	0.	-41.	-1.
ALL	HEGTOO	COAL-A	0.	-3.714	0.	0.902	0.17	-41.	-2270.	-186.	1446.	261.	96.	0.25	-53020.	275.	-11669.	-9493.
20	FCMCCL	COAL	0.	-0.168	0.	0.174	0.42	56.	101.	9.	166.	289.	32.	1.00	-9746.	21.	-3165.	-1946.
22	FCMCCL	COAL	0.	-0.010	0.	0.011	0.20	4.	7.	1.	11.	18.	2.	1.00	-77.	2.	-9.	-19.
26	FCMCCL	COAL	0.	-0.160	0.	0.096	0.18	38.	66.	5.	121.	206.	20.	1.00	163.	16.	253.	-16.
28	FCMCCL	COAL	0.	-0.699	0.	0.751	1.28	284.	492.	38.	751.	1285.	124.	0.97	-1778.	106.	1106.	-333.
29	FCMCCL	COAL	0.	-0.066	0.	0.075	0.18	29.	49.	4.	74.	126.	12.	1.00	414.	10.	268.	61.
33	FCMCCL	COAL	0.	-0.080	0.	0.033	0.02	11.	23.	2.	47.	84.	8.	0.64	97.	0.	20.	49.
ALL	FCMCCL	COAL	0.	-1.764	0.	1.700	0.32	630.	1101.	85.	1745.	2999.	295.	0.97	-16300.	232.	-2278.	-3287.
20	FCSTCL	COAL	0.	-0.195	0.	0.232	0.57	39.	71.	6.	177.	306.	33.	1.00	-7126.	33.	-2797.	-1900.
22	FCSTCL	COAL	0.	-0.010	0.	0.013	0.24	3.	5.	0.	11.	18.	2.	1.00	-33.	2.	3.	-16.
24	FCSTCL	COAL	0.	-0.267	0.	0.048	0.16	0.	1.	-1.	108.	184.	19.	1.00	-4638.	24.	-1473.	-1222.
26	FCSTCL	COAL	0.	-0.147	0.	0.121	0.22	27.	46.	3.	113.	193.	19.	1.00	469.	19.	383.	33.
28	FCSTCL	COAL	0.	-0.622	0.	0.726	1.23	185.	322.	24.	619.	1061.	105.	0.97	1164.	91.	1799.	312.
29	FCSTCL	COAL	0.	-0.070	0.	0.067	0.21	23.	39.	3.	73.	125.	12.	1.00	546.	13.	330.	78.
33	FCSTCL	COAL	0.	-0.083	0.	0.047	0.03	10.	21.	1.	52.	92.	9.	0.80	224.	0.	79.	92.
ALL	FCSTCL	COAL	0.	-2.014	0.	1.812	0.34	409.	719.	54.	1641.	2815.	285.	0.93	-13366.	257.	-2370.	-3730.
20	IGGTST	COAL	0.	-0.210	0.	0.162	0.39	-83.	-138.	6.	37.	67.	31.	0.30	-8622.	26.	-3143.	-2077.
22	IGGTST	COAL	0.	-0.012	0.	0.009	0.17	-4.	-7.	0.	3.	4.	2.	0.28	-44.	2.	-1.	-15.
26	IGGTST	COAL	0.	-0.189	0.	0.078	0.14	-66.	-113.	4.	20.	33.	20.	0.22	411.	17.	351.	37.
28	IGGTST	COAL	0.	-0.639	0.	0.439	0.75	-230.	-389.	26.	117.	202.	91.	0.23	93.	71.	1255.	126.
29	IGGTST	COAL	0.	-0.079	0.	0.059	0.14	-28.	-47.	3.	17.	28.	12.	0.27	361.	10.	267.	67.
33	IGGTST	COAL	0.	-0.154	0.	0.023	0.01	-58.	-93.	2.	-1.	4.	13.	0.09	148.	0.	10.	64.
ALL	IGGTST	COAL	0.	-1.839	0.	1.104	0.21	-673.	-1129.	61.	275.	485.	240.	0.25	-10975.	179.	-1807.	-2579.
20	GTSOAR	RESIDU	-0.329	0.140	-0.329	0.509	0.44	-55.	-40.	4.	64.	162.	26.	0.53	4646.	23.	79.	-427.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****DIRECT FUEL SAVINGS**** OIL+GAS	COAL	----TOTAL FUEL SAVINGS---- OIL+GAS	COAL	FESR	DIRECT EMISSIONS SAVINGS NOX	SOX	PART	********TOTAL EMISSIONS SAVINGS******** NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER--- TOTAL EXPORT MWH	COST	LAEC SAVED
22	GTSOAR	RESIDU	-0.023	0.012	-0.023	0.032	0.18	-2.	-2.	0.	5.	10.	2.	0.53	226.	2.	51.	-9.
24	GTSOAR	RESIDU	-0.010	0.005	-0.010	0.014	0.01	-0.	-1.	0.	2.	4.	1.	0.07	448.	0.	8.	80.
26	GTSOAR	RESIDU	-0.233.	0.116	-0.233	0.327	0.17	-11.	-18.	4.	57.	97.	16.	0.54	1829.	11.	545.	-1.
28	GTSOAR	RESIDU	-1.857	0.789	-1.857	2.490	1.08	-193.	-226.	25.	354.	704.	125.	0.49	13277.	129.	3210.	-1159.
29	GTSOAR	RESIDU	-0.163	0.075	-0.163	0.223	0.15	-15.	-17.	2.	33.	64.	11.	0.51	1096.	11.	328.	-91.
33	GTSOAR	RESIDU	-0.078	0.036	-0.078	0.107	0.02	-5.	-7.	1.	17.	31.	5.	0.28	717.	0.	-28.	47.
ALL	GTSOAR	RESIDU	-3.901	1.699	-3.901	5.362	0.27	-406.	-449.	54.	773.	1554.	271.	0.50	32218.	255.	6074.	-2260.
20	GTAC08	RESIDU	0.	-0.164	0.	0.180	0.44	-169.	-34.	-19.	-61.	144.	-11.	0.16	5559.	19.	420.	-179.
22	GTAC08	RESIDU	0.	-0.009	0.	0.010	0.19	-9.	-1.	-1.	-3.	9.	-1.	0.17	240.	1.	60.	-0.
24	GTAC08	RESIDU	0.	-0.003	0.	0.004	0.01	-2.	-0.	-0.	-0.	3.	-0.	0.03	486.	0.	17.	88.
26	GTAC08	RESIDU	0.	-0.088	0.	0.100	0.18	-72.	-8.	-9.	-14.	88.	-7.	0.21	1892.	8.	602.	83.
28	GTAC08	RESIDU	0.	-0.641	0.	0.726	1.23	-629.	-64.	-74.	-201.	635.	-57.	0.17	13026.	97.	3831.	-157.
29	GTAC08	RESIDU	0.	-0.060	0.	0.069	0.17	-60.	-6.	-7.	-19.	61.	-6.	0.17	1133.	9.	386.	-20.
33	GTAC08	RESIDU	0.	-0.023	0.	0.027	0.02	-19.	-2.	-2.	-3.	24.	-1.	0.08	602.	0.	-61.	54.
ALL	GTAC08	RESIDU	0.	-1.452	0.	1.639	0.31	-1410.	-170.	-165.	-442.	1416.	-122.	0.17	33711.	196.	7722.	-192.
20	GTAC12	RESIDU	0.	-0.173	0.	0.198	0.48	-167.	-41.	-19.	-50.	152.	-9.	0.19	5762.	23.	397.	-218.
22	GTAC12	RESIDU	0.	-0.010	0.	0.011	0.20	-9.	-2.	-1.	-2.	9.	-1.	0.19	238.	2.	58.	-2.
24	GTAC12	RESIDU	0.	-0.004	0.	0.004	0.01	-2.	-1.	-0.	0.	4.	-0.	0.04	494.	0.	22.	89.
26	GTAC12	RESIDU	0.	-0.099	0.	0.109	0.20	-77.	-16.	-9.	-12.	91.	-6.	0.23	1900.	10.	613.	69.
28	GTAC12	RESIDU	0.	-0.708	0.	0.790	1.34	-640.	-114.	-77.	-170.	659.	-50.	0.19	13067.	110.	3919.	-126.
29	GTAC12	RESIDU	0.	-0.068	0.	0.074	0.18	-61.	-11.	-7.	-16.	62.	-5.	0.19	1141.	11.	392.	-22.
33	GTAC12	RESIDU	0.	-0.030	0.	0.033	0.02	-23.	-5.	-3.	-3.	28.	-2.	0.10	689.	0.	-20.	69.
ALL	GTAC12	RESIDU	0.	-1.601	0.	1.789	0.34	-1436.	-278.	-170.	-371.	1474.	-106.	0.19	34168.	228.	7895.	-206.
20	GTAC16	RESIDU	0.	-0.180	0.	0.205	0.50	-167.	-46.	-19.	-45.	155.	-8.	0.21	5531.	25.	297.	-292.
22	GTAC16	RESIDU	0.	-0.010	0.	0.011	0.21	-9.	-2.	-1.	-2.	9.	-1.	0.20	231.	2.	56.	-4.
24	GTAC16	RESIDU	0.	-0.005	0.	0.005	0.02	-3.	-1.	-0.	0.	4.	-0.	0.04	491.	0.	22.	89.
26	GTAC16	RESIDU	0.	-0.106	0.	0.112	0.20	-80.	-20.	-10.	-11.	92.	-6.	0.23	1859.	12.	602.	50.
28	GTAC16	RESIDU	0.	-0.808	0.	0.805	1.37	-682.	-169.	-82.	-175.	666.	-50.	0.19	12935.	121.	3815.	-306.
29	GTAC16	RESIDU	0.	-0.074	0.	0.075	0.18	-63.	-15.	-8.	-16.	62.	-5.	0.19	1120.	12.	382.	-35.
33	GTAC16	RESIDU	0.	-0.036	0.	0.037	0.02	-27.	-7.	-3.	-4.	30.	-2.	0.12	741.	0.	5.	74.
ALL	GTAC16	RESIDU	0.	-1.786	0.	1.830	0.34	-1508.	-382.	-180.	-370.	1492.	-104.	0.20	33553.	251.	7586.	-619.
20	GTWC16	RESIDU	0.	-0.212	0.	0.185	0.45	-183.	-60.	-21.	-58.	147.	-11.	0.16	5282.	27.	114.	-458.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****DIRECT**** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22	GTWC16	RESIDU	0.	-0.012	0.	0.010	0.19	-10.	-3.	-1.	-3.	9.	-1.	0.17	235.	2.	53.	-7.
24	GTWC16	RESIDU	0.	-0.005	0.	0.005	0.02	-3.	-1.	-0.	0.	4.	-0.	0.04	462.	0.	14.	83.
26	GTWC16	RESIDU	0.	-0.117	0.	0.103	0.19	-86.	-26.	-11.	-17.	88.	-7.	0.20	1926.	13.	587.	20.
28	GTWC16	RESIDU	0.	-0.856	0.	0.755	1.28	-708.	-190.	-86.	-202.	643.	-55.	0.17	13310.	120.	3750.	-420.
29	GTWC16	RESIDU	0.	-0.080	0.	0.070	0.17	-66.	-17.	-8.	-19.	60.	-5.	0.17	1196.	12.	384.	-42.
33	GTWC16	RESIDU	0.	-0.040	0.	0.035	0.02	-29.	-9.	-3.	-5.	30.	-2.	0.10	774.	0.	7.	70.
ALL	GTWC16	RESIDU	0.	-1.943	0.	1.711	0.32	-1594.	-440.	-191.	-446.	1442.	-118.	0.17	34098.	255.	7219.	-1108.
20	CC1626	RESIDU	0.	-0.245	0.	0.218	0.53	-183.	-82.	-22.	-37.	162.	-7.	0.23	5883.	37.	-45.	-689.
22	CC1626	RESIDU	0.	-0.013	0.	0.012	0.22	-10.	-4.	-1.	-2.	9.	-1.	0.21	241.	2.	52.	-10.
24	CC1626	RESIDU	0.	-0.008	0.	0.007	0.02	-4.	-2.	-0.	1.	5.	-0.	0.06	473.	0.	8.	69.
26	CC1626	RESIDU	0.	-0.134	0.	0.115	0.21	-92.	-38.	-11.	-13.	92.	-5.	0.23	1957.	18.	598.	-7.
28	CC1626	RESIDU	0.	-0.391	0.	0.330	0.56	-293.	-112.	-36.	-66.	264.	-18.	0.20	5392.	47.	1484.	-34.
29	CC1626	RESIDU	0.	-0.091	0.	0.077	0.19	-68.	-25.	-8.	-16.	62.	-4.	0.20	1237.	14.	396.	-47.
33	CC1626	RESIDU	0.	-0.054	0.	0.045	0.03	-37.	-15.	-4.	-6.	37.	-2.	0.14	963.	0.	87.	88.
ALL	CC1626	RESIDU	0.	-1.255	0.	1.075	0.20	-921.	-373.	-112.	-186.	844.	-50.	0.20	21628.	157.	3456.	-843.
20	CC1622	RESIDU	0.	-0.229	0.	0.223	0.55	-177.	-75.	-21.	-34.	164.	-7.	0.24	5935.	35.	28.	-618.
22	CC1622	RESIDU	0.	-0.012	0.	0.012	0.22	-10.	-3.	-1.	-2.	9.	-1.	0.22	235.	2.	53.	-8.
24	CC1622	RESIDU	0.	-0.007	0.	0.006	0.02	-3.	-2.	-0.	1.	5.	-0.	0.05	496.	0.	13.	73.
26	CC1622	RESIDU	0.	-0.125	0.	0.118	0.22	-87.	-33.	-11.	-11.	93.	-5.	0.24	1872.	17.	594.	7.
28	CC1622	RESIDU	0.	-0.357	0.	0.330	0.56	-277.	-96.	-34.	-60.	262.	-17.	0.20	5063.	45.	1427.	-22.
29	CC1622	RESIDU	0.	-0.085	0.	0.078	0.19	-66.	-22.	-8.	-14.	63.	-4.	0.21	1168.	13.	390.	-41.
33	CC1622	RESIDU	0.	-0.049	0.	0.044	0.03	-34.	-12.	-4.	-5.	36.	-2.	0.14	890.	0.	55.	85.
ALL	CC1622	RESIDU	0.	-1.155	0.	1.084	0.20	-874.	-324.	-106.	-167.	845.	-47.	0.21	20923.	149.	3421.	-702.
20	CC1222	RESIDU	0.	-0.227	0.	0.225	0.55	-176.	-74.	-21.	-32.	165.	-7.	0.24	6255.	35.	110.	-568.
22	CC1222	RESIDU	0.	-0.012	0.	0.012	0.22	-9.	-3.	-1.	-2.	9.	-1.	0.23	242.	2.	55.	-7.
24	CC1222	RESIDU	0.	-0.007	0.	0.006	0.02	-3.	-2.	-0.	1.	5.	-0.	0.05	510.	0.	17.	75.
26	CC1222	RESIDU	0.	-0.124	0.	0.119	0.22	-87.	-33.	-11.	-10.	93.	-5.	0.25	1922.	16.	608.	17.
28	CC1222	RESIDU	0.	-0.353	0.	0.332	0.57	-274.	-94.	-33.	-58.	263.	-16.	0.21	5213.	45.	1470.	7.
29	CC1222	RESIDU	0.	-0.084	0.	0.079	0.19	-65.	-22.	-8.	-14.	63.	-4.	0.21	1202.	13.	400.	-35.
33	CC1222	RESIDU	0.	-0.048	0.	0.044	0.03	-34.	-12.	-4.	-5.	36.	-2.	0.14	914.	0.	60.	89.
ALL	CC1222	RESIDU	0.	-1.142	0.	1.092	0.21	-866.	-319.	-105.	-161.	848.	-46.	0.21	21718.	149.	3633.	-562.
20	CC0822	RESIDU	0.	-0.201	0.	0.228	0.56	-167.	-60.	-19.	-31.	166.	-6.	0.25	5813.	32.	115.	-516.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22	CC0822	RESIDU	0.	-0.011	0.	0.012	0.22	-9.	-2.	-1.	-2.	9.	-1.	0.23	241.	2.	58.	-3.
24	CC0822	RESIDU	0.	-0.005	0.	0.005	0.02	-3.	-1.	-0.	0.	4.	-0.	0.04	485.	0.	9.	74.
26	CC0822	RESIDU	0.	-0.108	0.	0.119	0.22	-79.	-24.	-10.	-8.	94.	-5.	0.26	1947.	14.	632.	59.
28	CC0822	RESIDU	0.	-0.295	0.	0.320	0.54	-249.	-64.	-30.	-55.	256.	-16.	0.21	4965.	40.	1414.	39.
29	CC0822	RESIDU	0.	-0.073	0.	0.079	0.19	-61.	-15.	-7.	-14.	64.	-4.	0.22	1208.	12.	412.	-15.
33	CC0822	RESIDU	0.	-0.037	0.	0.039	0.02	-27.	-7.	-3.	-3.	32.	-2.	0.12	827.	0.	5.	81.
ALL	CC0822	RESIDU	0.	-0.968	0.	1.065	0.20	-790.	-229.	-94.	-149.	830.	-44.	0.22	20546.	132.	3509.	-373.
20	STIG15	RESIDU	0.	-0.480	0.	0.100	0.25	-290.	-191.	-14.	-107.	112.	1.	0.01	8826.	54.	-203.	-1185.
22	STIG15	RESIDU	0.	-0.026	0.	0.006	0.10	-16.	-10.	-1.	-6.	6.	0.	0.01	267.	3.	23.	-46.
24	STIG15	RESIDU	0.	-0.094	0.	0.020	0.06	-51.	-37.	-3.	-15.	22.	-0.	0.06	597.	8.	65.	-128.
26	STIG15	RESIDU	0.	-0.267	0.	0.056	0.10	-161.	-106.	-8.	-59.	62.	0.	0.01	2032.	30.	316.	-416.
28	STIG15	RESIDU	0.	-0.557	0.	0.116	0.20	-336.	-221.	-17.	-124.	130.	1.	0.01	4215.	61.	622.	-861.
33	STIG15	RESIDU	0.	-0.056	0.	0.012	0.01	-34.	-22.	-2.	-13.	13.	0.	0.01	435.	6.	54.	-91.
ALL	STIG15	RESIDU	0.	-1.757	0.	0.367	0.07	-1054.	-698.	-53.	-384.	410.	2.	0.01	19440.	192.	1041.	-3237.
20	STIG10	RESIDU	0.	-0.388	0.	0.128	0.31	-254.	-146.	-10.	-91.	123.	3.	0.07	7203.	45.	-221.	-1020.
22	STIG10	RESIDU	0.	-0.021	0.	0.007	0.13	-14.	-8.	-1.	-5.	7.	0.	0.07	252.	3.	32.	-34.
24	STIG10	RESIDU	0.	-0.026	0.	0.009	0.03	-10.	-10.	-1.	1.	9.	-0.	0.08	511.	0.	31.	62.
26	STIG10	RESIDU	0.	-0.216	0.	0.071	0.13	-135.	-78.	-6.	-45.	71.	1.	0.08	1968.	24.	400.	-272.
28	STIG10	RESIDU	0.	-0.440	0.	0.145	0.25	-285.	-162.	-12.	-100.	143.	3.	0.08	3777.	36.	712.	-388.
33	STIG10	RESIDU	0.	-0.045	0.	0.015	0.01	-31.	-16.	-1.	-12.	15.	0.	0.05	406.	4.	70.	-42.
ALL	STIG10	RESIDU	0.	-1.364	0.	0.449	0.08	-874.	-504.	-37.	-303.	441.	7.	0.08	16939.	133.	1228.	-2032.
20	STIG1S	RESIDU	0.	-0.341	0.	0.134	0.33	-237.	-122.	-8.	-88.	125.	3.	0.09	6585.	38.	-161.	-891.
22	STIG1S	RESIDU	0.	-0.019	0.	0.007	0.14	-13.	-6.	-0.	-5.	7.	0.	0.09	258.	2.	39.	-26.
24	STIG1S	RESIDU	0.	-0.015	0.	0.006	0.02	-6.	-5.	-1.	0.	6.	-0.	0.05	491.	0.	20.	72.
26	STIG1S	RESIDU	0.	-0.190	0.	0.075	0.14	-123.	-63.	-5.	-40.	74.	1.	0.11	1986.	20.	440.	-201.
28	STIG1S	RESIDU	0.	-0.376	0.	0.148	0.25	-257.	-129.	-9.	-92.	144.	3.	0.09	3623.	24.	732.	-184.
33	STIG1S	RESIDU	0.	-0.039	0.	0.016	0.01	-30.	-13.	-1.	-12.	15.	0.	0.05	392.	2.	76.	-16.
ALL	STIG1S	RESIDU	0.	-1.175	0.	0.462	0.09	-798.	-405.	-29.	-283.	444.	8.	0.10	15979.	104.	1374.	-1496.
20	DEADV3	RESIDU	0.	-0.227	0.	0.190	0.46	-300.	-74.	-21.	-168.	144.	-8.	-0.09	1911.	32.	-806.	-1010.
22	DEADV3	RESIDU	0.	-0.017	0.	0.009	0.18	-20.	-6.	-1.	-11.	8.	-1.	-0.13	120.	2.	14.	-36.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
24	DEADV3	RESIDU	0.	-0.017	0.	0.008	0.03	-7.	-6.	-1.	1.	7.	-0.	0.08	209.	0.	-42.	34.
26	DEADV3	RESIDU	0.	-0.177	0.	0.093	0.17	-188.	-60.	-14.	-103.	81.	-8.	-0.10	900.	21.	256.	-273.
28	DEADV3	RESIDU	0.	-0.520	0.	0.277	0.47	-589.	-179.	-44.	-338.	237.	-23.	-0.12	2373.	37.	515.	-450.
33	DEADV3	RESIDU	0.	-0.102	0.	0.046	0.03	-103.	-36.	-8.	-56.	42.	-4.	-0.14	561.	1.	61.	-33.
ALL	DEADV3	RESIDU	0.	-1.343	0.	0.791	0.15	-1528.	-456.	-113.	-854.	658.	-57.	-0.11	7688.	118.	-1.	-2240.
20	DEHTPM	RESIDU	0.	-0.171	0.	0.233	0.57	-277.	-45.	-18.	-149.	167.	-5.	0.04	1884.	28.	-658.	-857.
22	DEHTPM	RESIDU	0.	-0.010	0.	0.012	0.22	-16.	-2.	-1.	-9.	9.	-1.	-0.02	132.	2.	32.	-17.
24	DEHTPM	RESIDU	0.	-0.005	0.	0.005	0.02	-3.	-1.	-0.	0.	4.	-0.	0.04	458.	0.	6.	76.
26	DEHTPM	RESIDU	0.	-0.106	0.	0.113	0.21	-139.	-21.	-10.	-70.	92.	-5.	0.03	935.	12.	381.	-76.
28	DEHTPM	RESIDU	0.	-0.677	0.	0.580	0.99	-1050.	-138.	-69.	-655.	510.	-49.	-0.10	3532.	83.	1054.	-1221.
29	DEHTPM	RESIDU	0.	-0.079	0.	0.062	0.15	-124.	-16.	-8.	-80.	57.	-6.	-0.14	359.	11.	167.	-169.
33	DEHTPM	RESIDU	0.	-0.040	0.	0.034	0.02	-48.	-8.	-3.	-24.	30.	-2.	-0.02	326.	0.	-143.	-1.
ALL	DEHTPM	RESIDU	0.	-1.520	0.	1.448	0.27	-2311.	-321.	-153.	-1378.	1214.	-96.	-0.08	10641.	189.	1171.	-3159.
20	DESOA3	DISTIL	-0.314	0.076	-0.314	0.485	0.42	-654.	5.	4.	-525.	218.	14.	-0.62	1642.	31.	-1071.	-1273.
22	DESOA3	DISTIL	-0.024	0.005	-0.024	0.032	0.15	-44.	-1.	0.	-35.	13.	1.	-0.70	50.	2.	-21.	-71.
24	DESOA3	DISTIL	-0.027	0.005	-0.027	0.035	0.03	-0.	-1.	0.	10.	14.	1.	0.23	468.	0.	-57.	37.
26	DESOA3	DISTIL	-0.246	0.049	-0.246	0.327	0.15	-412.	-10.	2.	-324.	134.	9.	-0.62	378.	22.	-59.	-605.
28	DESOA3	DISTIL	-0.744	0.133	-0.744	0.999	0.43	-1387.	-36.	7.	-1114.	415.	27.	-0.65	936.	44.	-484.	-1529.
33	DESOA3	DISTIL	-0.137	0.022	-0.137	0.176	0.02	-223.	-9.	1.	-174.	71.	5.	-0.65	206.	3.	-137.	-256.
ALL	DESOA3	DISTIL	-1.891	0.368	-1.891	2.604	0.13	-3448.	-67.	19.	-2743.	1097.	72.	-0.64	4667.	131.	-2319.	-4813.
20	DESOA3	RESIDU	-0.314	0.076	-0.314	0.485	0.42	-1422.	-72.	1.	-1290.	151.	26.	-2.36	1642.	31.	-896.	-1075.
22	DESOA3	RESIDU	-0.024	0.005	-0.024	0.032	0.15	-96.	-6.	0.	-87.	9.	2.	-2.52	50.	2.	-7.	-51.
24	DESOA3	RESIDU	-0.027	0.005	-0.027	0.035	0.03	-2.	-7.	0.	7.	9.	2.	0.18	468.	0.	18.	59.
26	DESOA3	RESIDU	-0.246	0.049	-0.246	0.327	0.15	-898.	-63.	1.	-809.	89.	17.	-2.35	378.	22.	85.	-403.
28	DESOA3	RESIDU	-0.744	0.133	-0.744	0.999	0.43	-3010.	-201.	1.	-2731.	273.	52.	-2.41	936.	44.	40.	-898.
33	DESOA3	RESIDU	-0.137	0.022	-0.137	0.176	0.02	-483.	-38.	0.	-434.	46.	9.	-2.41	206.	3.	-53.	-144.
ALL	DESOA3	RESIDU	-1.891	0.368	-1.891	2.604	0.13	-7493.	-491.	3.	-6774.	732.	136.	-2.38	4667.	131.	-1030.	-3185.
20	GTSOAD	DISTIL	-0.319	0.143	-0.319	0.507	0.46	-38.	34.	7.	77.	224.	16.	0.68	6152.	22.	360.	-497.
22	GTSOAD	DISTIL	-0.022	0.012	-0.022	0.032	0.19	-0.	4.	1.	6.	14.	1.	0.68	251.	1.	52.	-20.
24	GTSOAD	DISTIL	-0.009	0.005	-0.009	0.013	0.01	0.	1.	0.	3.	6.	0.	0.09	497.	0.	-57.	81.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

COGENERATION REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR NOX	EMISSIONS SAVINGS DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
26	GTSOAD	DISTIL	-0.225	0.122	-0.225	0.327	0.19	6.	37.	6.	71.	142.	9.	0.71	1989.	10.	540.	-122.
28	GTSOAD	DISTIL	-1.616	0.858	-1.616	2.349	1.25	-27.	252.	43.	440.	1019.	67.	0.66	13716.	109.	3161.	-1592.
29	GTSOAD	DISTIL	-0.154	0.082	-0.154	0.223	0.17	-2.	24.	4.	42.	97.	6.	0.68	1190.	10.	334.	-159.
33	GTSOAD	DISTIL	-0.068	0.036	-0.068	0.098	0.02	1.	11.	2.	21.	42.	3.	0.35	712.	0.	-142.	8.
ALL	GTSOAD	DISTIL	-3.530	1.841	-3.530	5.194	0.31	-86.	531.	92.	966.	2259.	149.	0.66	35864.	224.	6217.	-3367.
20	GTRA08	DISTIL	0.	-0.210	0.	0.211	0.51	-100.	-18.	2.	36.	214.	29.	0.53	4735.	30.	-195.	-856.
22	GTRA08	DISTIL	0.	-0.013	0.	0.011	0.21	-5.	-1.	0.	2.	12.	1.	0.52	226.	2.	41.	-27.
24	GTRA08	DISTIL	0.	-0.008	0.	0.006	0.02	-2.	-1.	0.	2.	7.	1.	0.10	428.	0.	-66.	67.
26	GTRA08	DISTIL	0.	-0.131	0.	0.111	0.20	-51.	-10.	1.	27.	122.	15.	0.53	1790.	16.	460.	-199.
28	GTRA08	DISTIL	0.	-1.317	0.	0.759	1.29	-555.	-201.	-4.	113.	935.	119.	0.48	14142.	165.	2352.	-2786.
29	GTRA08	DISTIL	0.	-0.102	0.	0.069	0.17	-43.	-12.	-0.	12.	81.	10.	0.49	1117.	14.	266.	-219.
33	GTRA08	DISTIL	0.	-0.063	0.	0.045	0.03	-25.	-7.	0.	10.	52.	6.	0.37	922.	0.	-5.	-2.
ALL	GTRA08	DISTIL	0.	-2.678	0.	1.761	0.33	-1135.	-362.	-3.	294.	2069.	265.	0.49	33935.	331.	4144.	-5841.
20	GTRA12	DISTIL	0.	-0.207	0.	0.213	0.52	-99.	-17.	2.	36.	214.	29.	0.53	4874.	30.	-149.	-824.
22	GTRA12	DISTIL	0.	-0.012	0.	0.011	0.21	-5.	-1.	0.	2.	12.	1.	0.52	222.	2.	41.	-26.
24	GTRA12	DISTIL	0.	-0.008	0.	0.006	0.02	-2.	-1.	0.	2.	7.	1.	0.10	448.	0.	-61.	71.
26	GTRA12	DISTIL	0.	-0.127	0.	0.113	0.21	-49.	-8.	1.	28.	123.	15.	0.53	1786.	16.	470.	-186.
28	GTRA12	DISTIL	0.	-1.208	0.	0.787	1.34	-513.	-160.	-2.	129.	931.	117.	0.49	13683.	157.	2507.	-2499.
29	GTRA12	DISTIL	0.	-0.097	0.	0.072	0.18	-42.	-10.	0.	13.	82.	10.	0.50	1117.	14.	281.	-203.
33	GTRA12	DISTIL	0.	-0.059	0.	0.045	0.03	-23.	-6.	0.	10.	51.	6.	0.37	891.	0.	-16.	4.
ALL	GTRA12	DISTIL	0.	-2.501	0.	1.816	0.34	-1067.	-294.	2.	322.	2070.	262.	0.49	33531.	320.	4476.	-5335.
20	GTRA16	DISTIL	0.	-0.203	0.	0.209	0.51	-98.	-14.	2.	35.	213.	29.	0.52	4361.	29.	-245.	-872.
22	GTRA16	DISTIL	0.	-0.012	0.	0.011	0.21	-5.	-0.	0.	2.	12.	1.	0.52	213.	2.	40.	-27.
24	GTRA16	DISTIL	0.	-0.007	0.	0.006	0.02	-2.	-0.	0.	2.	7.	1.	0.09	435.	0.	-66.	70.
26	GTRA16	DISTIL	0.	-0.124	0.	0.111	0.20	-48.	-6.	1.	28.	123.	15.	0.53	1721.	15.	458.	-189.
28	GTRA16	DISTIL	0.	-1.131	0.	0.780	1.33	-485.	-124.	1.	131.	922.	115.	0.49	12904.	150.	2438.	-2438.
29	GTRA16	DISTIL	0.	-0.093	0.	0.072	0.17	-40.	-8.	0.	13.	82.	10.	0.50	1070.	14.	276.	-203.
33	GTRA16	DISTIL	0.	-0.054	0.	0.043	0.03	-21.	-4.	0.	10.	49.	6.	0.35	813.	0.	-52.	-1.
ALL	GTRA16	DISTIL	0.	-2.368	0.	1.797	0.34	-1019.	-228.	8.	322.	2054.	259.	0.49	31363.	305.	4154.	-5336.
20	GTR208	DISTIL	0.	-0.194	0.	0.197	0.48	-96.	-6.	3.	30.	210.	29.	0.51	5118.	26.	3.	-724.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	TOTAL OIL+GAS	FESR COAL	---EMISSIONS SAVINGS--- DIRECT NOX	SOX	PART	TOTAL NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
22	GTR208	DISTIL	0.	-0.011	0.011	0.20	-5.	0.	0.	2.	12.	1.	0.50	231.	2.	45.	-25.
24	GTR208	DISTIL	0.	-0.006	0.005	0.02	-2.	-0.	0.	2.	6.	1.	0.08	458.	0.	-64.	74.
26	GTR208	DISTIL	0.	-0.117	0.105	0.19	-45.	1.	1.	27.	122.	15.	0.52	1857.	13.	489.	-168.
28	GTR208	DISTIL	0.	-1.003	0.735	1.25	-439.	-52.	7.	120.	899.	111.	0.48	13382.	133.	2655.	-2205.
29	GTR208	DISTIL	0.	-0.086	0.068	0.17	-38.	-3.	1.	12.	82.	10.	0.49	1124.	12.	293.	-194.
33	GTR208	DISTIL	0.	-0.044	0.036	0.02	-17.	-1.	0.	9.	43.	5.	0.30	797.	0.	-96.	2.
ALL	GTR208	DISTIL	0.	-2.130	1.685	0.32	-936.	-89.	19.	292.	2002.	250.	0.48	33479.	271.	4845.	-4722.
20	GTR212	DISTIL	0.	-0.200	0.200	0.49	-98.	-10.	3.	31.	211.	29.	0.51	4941.	27.	-79.	-780.
22	GTR212	DISTIL	0.	-0.012	0.011	0.20	-5.	-0.	0.	2.	12.	1.	0.51	226.	2.	43.	-26.
24	GTR212	DISTIL	0.	-0.006	0.005	0.02	-2.	-0.	0.	2.	6.	1.	0.08	452.	0.	-64.	73.
26	GTR212	DISTIL	0.	-0.120	0.107	0.20	-46.	-2.	1.	27.	122.	15.	0.52	1835.	14.	462.	-174.
28	GTR212	DISTIL	0.	-1.027	0.754	1.28	-447.	-70.	6.	126.	904.	112.	0.48	13254.	137.	2635.	-2214.
29	GTR212	DISTIL	0.	-0.088	0.070	0.17	-39.	-4.	1.	12.	82.	10.	0.49	1118.	13.	291.	-194.
33	GTR212	DISTIL	0.	-0.047	0.039	0.02	-19.	-2.	0.	9.	45.	5.	0.32	825.	0.	-78.	4.
ALL	GTR212	DISTIL	0.	-2.190	1.729	0.32	-956.	-129.	16.	306.	2018.	253.	0.48	33057.	281.	4715.	-4832.
20	GTR216	DISTIL	0.	-0.198	0.205	0.50	-97.	-10.	3.	33.	212.	29.	0.52	4724.	28.	-122.	-797.
22	GTR216	DISTIL	0.	-0.012	0.011	0.21	-5.	-0.	0.	2.	12.	1.	0.51	219.	2.	42.	-26.
24	GTR216	DISTIL	0.	-0.006	0.005	0.02	-2.	-0.	0.	2.	6.	1.	0.08	450.	0.	-64.	73.
26	GTR216	DISTIL	0.	-0.119	0.110	0.20	-46.	-2.	1.	28.	123.	15.	0.53	1784.	14.	479.	-172.
28	GTR216	DISTIL	0.	-1.027	0.775	1.32	-446.	-75.	5.	134.	911.	113.	0.49	12878.	139.	2598.	-2210.
29	GTR216	DISTIL	0.	-0.088	0.072	0.17	-38.	-4.	1.	13.	83.	10.	0.50	1088.	13.	269.	-192.
33	GTR216	DISTIL	0.	-0.048	0.040	0.03	-19.	-2.	0.	10.	46.	6.	0.33	815.	0.	-72.	5.
ALL	GTR216	DISTIL	0.	-2.184	1.779	0.33	-952.	-137.	15.	324.	2034.	254.	0.49	32051.	285.	4598.	-4842.
20	GTRW08	DISTIL	0.	-0.257	0.185	0.45	-117.	-36.	0.	26.	207.	29.	0.49	5095.	34.	-338.	-1033.
22	GTRW08	DISTIL	0.	-0.015	0.010	0.18	-6.	-2.	-0.	2.	12.	1.	0.48	235.	2.	35.	-34.
24	GTRW08	DISTIL	0.	-0.011	0.006	0.02	-3.	-1.	-0.	3.	8.	1.	0.11	419.	0.	-69.	59.
26	GTRW08	DISTIL	0.	-0.155	0.097	0.18	-60.	-20.	-0.	21.	118.	15.	0.49	1902.	18.	413.	-270.
28	GTRW08	DISTIL	0.	-1.462	0.663	1.16	-610.	-258.	-9.	80.	916.	119.	0.45	15153.	170.	2221.	-3099.
29	GTRW08	DISTIL	0.	-0.116	0.061	0.15	-49.	-18.	-0.	8.	79.	10.	0.45	1222.	15.	249.	-251.
33	GTRW08	DISTIL	0.	-0.077	0.042	0.03	-30.	-11.	-0.	8.	54.	7.	0.39	1041.	0.	36.	-21.
ALL	GTRW08	DISTIL	0.	-3.046	1.579	0.30	-1275.	-505.	-13.	214.	2028.	265.	0.46	36502.	347.	3708.	-6771.
20	GTRW12	DISTIL	0.	-0.249	0.196	0.48	-113.	-35.	0.	30.	210.	29.	0.51	5167.	34.	-292.	-987.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	---EMISSIONS SAVINGS--- FESR	DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22	GTRW12	DISTIL	0.	-0.014	0.	0.010	0.20	-6.	-2.	0.	2.	12.	1.	0.50	236.	2.	38.	-31.
24	GTRW12	DISTIL	0.	-0.010	0.	0.007	0.02	-3.	-1.	-0.	3.	8.	1.	0.11	419.	0.	-66.	62.
26	GTRW12	DISTIL	0.	-0.148	0.	0.105	0.19	-58.	-18.	-0.	24.	120.	15.	0.51	1908.	18.	442.	-238.
28	GTRW12	DISTIL	0.	-1.331	0.	0.755	1.28	-558.	-218.	-6.	113.	923.	118.	0.48	14889.	164.	2569.	-2620.
29	GTRW12	DISTIL	0.	-0.109	0.	0.068	0.16	-46.	-16.	-0.	11.	81.	10.	0.48	1243.	15.	280.	-219.
33	GTRW12	DISTIL	0.	-0.072	0.	0.046	0.03	-28.	-10.	-0.	10.	54.	7.	0.40	1030.	0.	50.	-3.
ALL	GTRW12	DISTIL	0.	-2.826	0.	1.735	0.33	-1188.	-439.	-9.	280.	2059.	265.	0.48	36390.	341.	4415.	-5802.
20	GTRW16	DISTIL	0.	-0.244	0.	0.195	0.48	-112.	-32.	1.	30.	210.	29.	0.50	4730.	33.	-363.	-1018.
22	GTRW16	DISTIL	0.	-0.014	0.	0.010	0.20	-6.	-1.	0.	2.	12.	1.	0.50	228.	2.	37.	-31.
24	GTRW16	DISTIL	0.	-0.009	0.	0.007	0.02	-3.	-1.	0.	2.	8.	1.	0.10	406.	0.	-71.	61.
26	GTRW16	DISTIL	0.	-0.144	0.	0.104	0.19	-56.	-15.	0.	24.	120.	15.	0.51	1894.	17.	446.	-230.
28	GTRW16	DISTIL	0.	-1.240	0.	0.756	1.28	-524.	-178.	-3.	118.	914.	116.	0.48	14066.	156.	2523.	-2514.
29	GTRW16	DISTIL	0.	-0.105	0.	0.068	0.17	-44.	-13.	-0.	11.	81.	10.	0.49	1207.	14.	280.	-215.
33	GTRW16	DISTIL	0.	-0.066	0.	0.044	0.03	-26.	-8.	-0.	9.	52.	6.	0.38	1000.	0.	23.	1.
ALL	GTRW16	DISTIL	0.	-2.665	0.	1.732	0.33	-1128.	-364.	-3.	287.	2044.	261.	0.48	34434.	326.	4207.	-5774.
20	GTR308	DISTIL	0.	-0.243	0.	0.166	0.41	-114.	-24.	2.	18.	201.	29.	0.47	5227.	29.	-202.	-943.
22	GTR308	DISTIL	0.	-0.015	0.	0.009	0.16	-6.	-1.	0.	1.	11.	1.	0.46	235.	2.	34.	-36.
24	GTR308	DISTIL	0.	-0.009	0.	0.004	0.01	-2.	-1.	0.	2.	6.	1.	0.08	460.	0.	-67.	65.
26	GTR308	DISTIL	0.	-0.151	0.	0.084	0.15	-59.	-13.	0.	17.	115.	14.	0.47	1935.	15.	398.	-284.
28	GTR308	DISTIL	0.	-1.375	0.	0.569	0.97	-583.	-189.	-3.	43.	875.	113.	0.42	14638.	152.	1933.	-3288.
29	GTR308	DISTIL	0.	-0.114	0.	0.052	0.13	-48.	-14.	-0.	5.	77.	10.	0.43	1219.	14.	231.	-273.
33	GTR308	DISTIL	0.	-0.067	0.	0.032	0.02	-27.	-8.	0.	6.	47.	6.	0.31	960.	0.	-65.	-38.
ALL	GTR308	DISTIL	0.	-2.851	0.	1.325	0.25	-1213.	-362.	-0.	132.	1926.	252.	0.43	35662.	305.	3269.	-6932.
20	GTR312	DISTIL	0.	-0.235	0.	0.190	0.46	-110.	-26.	1.	27.	208.	29.	0.50	5325.	31.	-171.	-900.
22	GTR312	DISTIL	0.	-0.013	0.	0.010	0.19	-6.	-1.	0.	2.	12.	1.	0.50	236.	2.	41.	-29.
24	GTR312	DISTIL	0.	-0.008	0.	0.006	0.02	-2.	-1.	0.	2.	7.	1.	0.09	439.	0.	-66.	68.
26	GTR312	DISTIL	0.	-0.137	0.	0.103	0.19	-53.	-11.	1.	24.	120.	15.	0.51	1939.	16.	457.	-210.
28	GTR312	DISTIL	0.	-1.091	0.	0.750	1.28	-469.	-109.	2.	124.	898.	112.	0.48	14045.	142.	2749.	-2182.
29	GTR312	DISTIL	0.	-0.097	0.	0.068	0.17	-42.	-9.	0.	12.	81.	10.	0.49	1208.	14.	295.	-200.
33	GTR312	DISTIL	0.	-0.057	0.	0.041	0.03	-22.	-5.	0.	9.	49.	6.	0.35	950.	0.	-24.	5.
ALL	GTR312	DISTIL	0.	-2.401	0.	1.712	0.32	-1032.	-237.	7.	293.	2016.	255.	0.48	35398.	300.	4824.	-5055.
20	GTR316	DISTIL	0.	-0.236	0.	0.188	0.46	-110.	-26.	1.	27.	208.	29.	0.50	4928.	31.	-263.	-952.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT G.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=HEAT

PROCS	ECS	ECS FUEL	****DIRECT**** FUEL SAVINGS OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR	DIRECT NOX	DIRECT SOX	DIRECT PART	********TOTAL******** NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
22	GTR316	DISTIL	0.	-0.013	0.	0.010	0.19	-6.	-1.	0.	2.	12.	1.	0.49	231.	2.	39.	-30.
24	GTR316	DISTIL	0.	-0.008	0.	0.006	0.02	-2.	-1.	0.	2.	7.	1.	0.09	426.	0.	-69.	66.
26	GTR316	DISTIL	0.	-0.137	0.	0.102	0.19	-53.	-10.	1.	24.	120.	15.	0.51	1900.	16.	455.	-217.
28	GTR316	DISTIL	0.	-1.086	0.	0.742	1.26	-467.	-105.	3.	121.	895.	112.	0.48	13645.	141.	2642.	-2243.
29	GTR316	DISTIL	0.	-0.097	0.	0.068	0.17	-42.	-9.	0.	11.	81.	10.	0.49	1183.	13.	268.	-205.
33	GTR316	DISTIL	0.	-0.057	0.	0.040	0.03	-22.	-5.	0.	9.	48.	6.	0.34	920.	0.	-35.	0.
ALL	GTR316	DISTIL	0.	-2.394	0.	1.694	0.32	-1029.	-230.	8.	287.	2009.	254.	0.48	34060.	297.	4481.	-5250.
20	FCPADS	DISTIL	0.	-0.241	0.	0.173	0.42	-38.	55.	5.	95.	283.	32.	0.85	4084.	32.	-608.	-1347.
22	FCPADS	DISTIL	0.	-0.019	0.	0.009	0.17	-3.	3.	0.	6.	18.	2.	0.85	141.	2.	-26.	-84.
24	FCPADS	DISTIL	0.	-0.019	0.	0.009	0.03	-5.	-4.	-0.	4.	12.	2.	0.17	524.	0.	-52.	40.
26	FCPADS	DISTIL	0.	-0.188	0.	0.091	0.17	-30.	23.	2.	60.	176.	19.	0.83	1084.	23.	-142.	-758.
28	FCPADS	DISTIL	0.	-1.518	0.	0.735	1.25	-239.	222.	19.	486.	1455.	153.	0.84	8885.	182.	-1414.	-6154.
29	FCPADS	DISTIL	0.	-0.128	0.	0.062	0.15	-20.	19.	2.	41.	124.	13.	0.85	735.	17.	-82.	-530.
33	FCPADS	DISTIL	0.	-0.098	0.	0.047	0.03	-17.	10.	1.	29.	89.	9.	0.82	690.	1.	-117.	-256.
ALL	FCPADS	DISTIL	0.	-3.259	0.	1.662	0.31	-520.	483.	42.	1064.	3177.	337.	0.84	23795.	381.	-3892.	-13397.
20	FCMCDS	DISTIL	0.	-0.273	0.	0.211	0.52	-251.	52.	-0.	-95.	318.	30.	0.47	3685.	40.	-1163.	-1659.
22	FCMCDS	DISTIL	0.	-0.015	0.	0.012	0.22	-14.	3.	-0.	-5.	18.	2.	0.47	130.	2.	-12.	-69.
24	FCMCDS	DISTIL	0.	-0.013	0.	0.010	0.03	-3.	-2.	-0.	4.	10.	1.	0.15	501.	0.	-46.	62.
26	FCMCDS	DISTIL	0.	-0.152	0.	0.118	0.22	-126.	28.	-0.	-39.	175.	16.	0.49	992.	21.	-6.	-595.
28	FCMCDS	DISTIL	0.	-1.192	0.	0.922	1.57	-1079.	262.	-2.	-399.	1418.	124.	0.47	7772.	166.	-362.	-4752.
29	FCMCDS	DISTIL	0.	-0.104	0.	0.080	0.20	-94.	23.	-0.	-35.	124.	11.	0.47	655.	16.	5.	-427.
33	FCMCDS	DISTIL	0.	-0.074	0.	0.057	0.04	-58.	11.	-0.	-16.	82.	8.	0.45	591.	0.	-92.	-159.
ALL	FCMCDS	DISTIL	0.	-2.694	0.	2.084	0.39	-2402.	557.	-5.	-864.	3173.	281.	0.47	21181.	363.	-2480.	-11249.
													BEGINNING OF POWERMATCH					
20	STM141	COAL-A	0.	-0.029	0.	0.047	0.12	22.	-25.	-1.	46.	18.	5.	0.33	-1126.	0.	-558.	-287.
22	STM141	COAL-A	0.	-0.004	0.	0.006	0.12	6.	-2.	-0.	9.	3.	0.	0.33	43.	0.	10.	10.
24	STM141	COAL-A	0.	-0.002	0.	0.204	0.67	-0.	-1.	-0.	66.	111.	12.	0.99	-4464.	0.	-1470.	-849.
26	STM141	COAL-A	0.	-0.012	0.	0.020	0.04	9.	-7.	-1.	19.	10.	1.	0.39	255.	0.	102.	78.
28	STM141	COAL-A	0.	-0.021	0.	0.035	0.06	49.	-13.	-1.	68.	18.	2.	0.30	361.	0.	145.	110.
29	STM141	COAL-A	0.	-0.021	0.	0.035	0.08	30.	-13.	-1.	48.	18.	2.	0.33	510.	0.	198.	147.
ALL	STM141	COAL-A	0.	-0.134	0.	0.523	0.10	174.	-91.	-7.	385.	270.	34.	0.34	-6622.	0.	-2368.	-1191.
20	STM141	COAL-F	0.	-0.029	0.	0.047	0.12	-19.	-25.	-1.	6.	18.	5.	0.15	-1709.	0.	-733.	-402.

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
22	STM141	COAL-F	0.	-0.004	0.	0.006	0.12	-1.	-2.	-0.	2.	3.	0.	0.15	-22.	0.	-6.	-0.
24	STM141	COAL-F	0.	-0.002	0.	0.204	0.67	-1.	-1.	-0.	65.	111.	12.	0.99	-6326.	0.	-2019.	-1208.
26	STM141	COAL-F	0.	-0.012	0.	0.020	0.04	-4.	-7.	-1.	6.	10.	1.	0.23	190.	0.	88.	70.
28	STM141	COAL-F	0.	-0.021	0.	0.035	0.06	-10.	-13.	-1.	8.	18.	2.	0.11	47.	0.	67.	67.
29	STM141	COAL-F	0.	-0.021	0.	0.035	0.08	-7.	-13.	-1.	11.	18.	2.	0.15	265.	0.	144.	118.
ALL	STM141	COAL-F	0.	-0.134	0.	0.523	0.10	-64.	-91.	-7.	147.	270.	34.	0.15	-11369.	0.	-3700.	-2039.
20	STM141	RESIDU	0.	-0.029	0.	0.047	0.12	-19.	13.	-1.	4.	50.	-3.	0.25	1302.	0.	81.	-145.
22	STM141	RESIDU	0.	-0.004	0.	0.006	0.12	-1.	4.	-0.	2.	9.	-1.	0.25	227.	0.	57.	-6.
24	STM141	RESIDU	0.	-0.002	0.	0.204	0.67	-1.	-1.	-0.	65.	112.	12.	0.99	1207.	0.	173.	216.
26	STM141	RESIDU	0.	-0.012	0.	0.020	0.04	-4.	5.	-1.	6.	21.	-1.	0.32	495.	0.	155.	31.
28	STM141	RESIDU	0.	-0.021	0.	0.035	0.06	-10.	42.	-1.	6.	65.	-9.	0.22	1228.	0.	361.	-151.
29	STM141	RESIDU	0.	-0.021	0.	0.035	0.08	-7.	23.	-1.	9.	48.	-5.	0.25	825.	0.	268.	-55.
ALL	STM141	RESIDU	0.	-0.134	0.	0.523	0.10	-64.	130.	-7.	139.	458.	-10.	0.26	7951.	0.	1648.	-167.
20	STM088	COAL-A	0.	-0.009	0.	0.015	0.04	27.	-5.	-0.	34.	7.	1.	0.28	-107.	0.	-142.	-88.
22	STM088	COAL-A	0.	-0.004	0.	0.006	0.12	6.	-2.	-0.	9.	3.	0.	0.33	85.	0.	21.	16.
28	STM088	COAL-A	0.	-0.012	0.	0.020	0.03	31.	-7.	-1.	41.	11.	1.	0.26	-4.	0.	18.	21.
ALL	STM088	COAL-A	0.	-0.048	0.	0.080	0.01	122.	-29.	-2.	160.	41.	5.	0.28	-50.	0.	-200.	-99.
20	STM088	COAL-F	0.	-0.009	0.	0.015	0.04	-3.	-5.	-0.	4.	7.	1.	0.09	-370.	0.	-214.	-133.
22	STM088	COAL-F	0.	-0.004	0.	0.006	0.12	-1.	-2.	-0.	2.	3.	0.	0.15	11.	0.	3.	5.
28	STM088	COAL-F	0.	-0.012	0.	0.020	0.03	-9.	-7.	-1.	2.	11.	1.	0.06	-210.	0.	-33.	-9.
ALL	STM088	COAL-F	0.	-0.048	0.	0.080	0.01	-26.	-29.	-2.	15.	41.	5.	0.08	-1100.	0.	-473.	-264.
20	STM088	RESIDU	0.	-0.009	0.	0.015	0.04	-3.	22.	-0.	3.	31.	-5.	0.20	2127.	0.	429.	58.
22	STM088	RESIDU	0.	-0.004	0.	0.006	0.12	-1.	4.	-0.	2.	9.	-1.	0.25	244.	0.	61.	-4.
28	STM088	RESIDU	0.	-0.012	0.	0.020	0.03	-9.	30.	-1.	0.	42.	-6.	0.18	822.	0.	235.	-112.
ALL	STM088	RESIDU	0.	-0.048	0.	0.080	0.01	-26.	108.	-2.	10.	158.	-22.	0.19	6170.	0.	1403.	-111.
20	PFBSTM	COAL-P	0.	-0.036	0.	0.058	0.14	30.	-32.	2.	61.	21.	10.	0.36	-4152.	0.	-1507.	-857.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS TOTAL COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS FESR COAL	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	CAPITL EMSR SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST SAVED	ELECTRIC POWER LAEC SAVED
22	PFBSTM	COAL-P	0.	-0.004	0.	0.006	0.12	6.	-2.	0.	10.	3.	1. 0.37	-53.	0.	-15.	-6.
24	PFBSTM	COAL-P	0.	-0.005	0.	0.200	0.66	-1.	-3.	-0.	65.	109.	12. 0.98	-10008.	0.	-2941.	-1756.
26	PFBSTM	COAL-P	0.	-0.044	0.	0.068	0.12	33.	-26.	1.	69.	35.	8. 0.44	479.	0.	232.	188.
28	PFBSTM	COAL-P	0.	-0.068	0.	0.101	0.17	201.	-41.	8.	256.	52.	17. 0.34	502.	0.	223.	184.
29	PFBSTM	COAL-P	0.	-0.022	0.	0.034	0.08	36.	-13.	2.	54.	17.	6. 0.37	295.	0.	132.	103.
ALL	PFBSTM	COAL-P	0.	-0.243	0.	0.638	0.12	419.	-160.	18.	703.	324.	73. 0.39	-17679.	0.	-5297.	-2929.
20	TISTMT	COAL	0.	-0.036	0.	0.058	0.14	-22.	-32.	-2.	9.	21.	6. 0.14	-11395.	0.	-3273.	-1864.
22	TISTMT	COAL	0.	-0.004	0.	0.006	0.12	-1.	-2.	-0.	2.	3.	0. 0.14	-401.	0.	-95.	-51.
24	TISTMT	COAL	0.	-0.004	0.	0.201	0.66	-1.	-2.	-0.	65.	110.	12. 0.98	-22681.	0.	-5961.	-3485.
26	TISTMT	COAL	0.	-0.043	0.	0.069	0.13	-15.	-26.	-2.	21.	35.	4. 0.24	-1635.	0.	-236.	-65.
28	TISTMT	COAL	0.	-0.022	0.	0.035	0.06	-10.	-13.	-1.	8.	18.	2. 0.11	-1262.	0.	-239.	-106.
29	TISTMT	COAL	0.	-0.022	0.	0.034	0.08	-8.	-13.	-1.	10.	17.	2. 0.15	-688.	0.	-81.	-10.
ALL	TISTMT	COAL	0.	-0.190	0.	0.583	0.11	-83.	-129.	-9.	166.	296.	39. 0.17	-55180.	0.	-14332.	-8121.
20	TISTMT	RESIDU	0.	-0.036	0.	0.058	0.14	-22.	10.	-2.	7.	57.	-3. 0.25	-6364.	0.	-1906.	-1306.
22	TISTMT	RESIDU	0.	-0.004	0.	0.006	0.12	-1.	4.	-0.	2.	9.	-1. 0.25	-117.	0.	-24.	-53.
26	TISTMT	RESIDU	0.	-0.043	0.	0.069	0.13	-15.	14.	-2.	19.	69.	-3. 0.33	-557.	0.	-5.	-185.
28	TISTMT	RESIDU	0.	-0.022	0.	0.035	0.06	-10.	42.	-1.	6.	65.	-9. 0.22	-43.	0.	61.	-322.
29	TISTMT	RESIDU	0.	-0.022	0.	0.034	0.08	-8.	22.	-1.	9.	47.	-5. 0.25	-80.	0.	53.	-178.
ALL	TISTMT	RESIDU	0.	-0.192	0.	0.304	0.06	-85.	140.	-10.	65.	373.	-31. 0.26	-10842.	0.	-2757.	-3096.
20	TIHRSG	COAL	0.	-0.011	0.	0.013	0.03	-4.	-6.	-1.	4.	6.	1. 0.07	-3653.	0.	-974.	-559.
22	TIHRSG	COAL	0.	-0.005	0.	0.005	0.09	-2.	-3.	-0.	1.	2.	0. 0.11	-640.	0.	-152.	-83.
24	TIHRSG	COAL	0.	-0.039	0.	0.166	0.55	-13.	-23.	-2.	52.	89.	10. 0.78	-29733.	0.	-7467.	-4281.
26	TIHRSG	COAL	0.	-0.031	0.	0.026	0.05	-11.	-19.	-2.	7.	12.	2. 0.15	-1603.	0.	-317.	-153.
28	TIHRSG	COAL	0.	-0.268	0.	0.088	0.15	-100.	-161.	-13.	14.	34.	8. 0.08	-16332.	0.	-3775.	-2107.
29	TIHRSG	COAL	0.	-0.036	0.	0.019	0.05	-13.	-22.	-2.	5.	8.	1. 0.08	-1282.	0.	-248.	-120.
ALL	TIHRSG	COAL	0.	-0.530	0.	0.430	0.08	-194.	-318.	-27.	115.	207.	30. 0.10	-72463.	0.	-17602.	-9940.
20	TIHRSG	RESIDU	0.	-0.011	0.	0.013	0.03	-4.	22.	-1.	3.	30.	-5. 0.19	-866.	0.	-267.	-321.
22	TIHRSG	RESIDU	0.	-0.005	0.	0.005	0.09	-2.	4.	-0.	1.	8.	-1. 0.22	-331.	0.	-77.	-82.
26	TIHRSG	RESIDU	0.	-0.046	0.	0.018	0.03	-16.	2.	-2.	3.	32.	-4. 0.21	-976.	0.	-222.	-278.
28	TIHRSG	RESIDU	0.	-0.074	0.	0.024	0.04	-28.	49.	-4.	1.	89.	-17. 0.16	-1890.	0.	-440.	-840.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
29	TIHRSG	RESIDU	0.	-0.036	0.	0.019	0.05	-13.	16.	-2.	4.	41.	-6.	0.19	-593.	0.	-114.	-294.
ALL	TIHRSG	RESIDU	0.	-0.299	0.	0.136	0.03	-108.	159.	-15.	20.	346.	-57.	0.18	-8068.	0.	-1940.	-3146.
20	STIRL	COAL	0.	-0.045	0.	0.046	0.11	-25.	-38.	-2.	5.	14.	5.	0.10	-2715.	0.	-1172.	-653.
22	STIRL	COAL	0.	-0.006	0.	0.005	0.08	-2.	-3.	-0.	1.	2.	0.	0.10	-35.	0.	-11.	-3.
24	STIRL	COAL	0.	-0.069	0.	0.188	0.62	-25.	-41.	-3.	58.	99.	12.	0.59	-7258.	0.	-2238.	-1292.
26	STIRL	COAL	0.	-0.062	0.	0.050	0.09	-22.	-37.	-3.	14.	24.	4.	0.16	-102.	0.	87.	106.
28	STIRL	COAL	0.	-0.034	0.	0.024	0.04	-14.	-20.	-2.	4.	12.	2.	0.06	-318.	0.	-34.	7.
29	STIRL	COAL	0.	-0.032	0.	0.023	0.06	-11.	-19.	-2.	7.	11.	2.	0.10	-157.	0.	23.	41.
ALL	STIRL	COAL	0.	-0.357	0.	0.483	0.09	-142.	-229.	-18.	128.	233.	35.	0.12	-15219.	0.	-4809.	-2580.
20	STIRL	DISTIL	0.	-0.045	0.	0.046	0.11	1.	32.	5.	31.	84.	12.	0.52	1583.	0.	-47.	-395.
22	STIRL	DISTIL	0.	-0.006	0.	0.005	0.08	2.	7.	1.	5.	13.	1.	0.52	206.	0.	43.	-42.
26	STIRL	DISTIL	0.	-0.062	0.	0.050	0.09	4.	32.	4.	40.	93.	11.	0.56	991.	0.	252.	-221.
28	STIRL	DISTIL	0.	-0.034	0.	0.024	0.04	21.	73.	8.	40.	105.	11.	0.51	901.	0.	227.	-477.
29	STIRL	DISTIL	0.	-0.032	0.	0.023	0.06	11.	40.	5.	29.	71.	8.	0.52	497.	0.	130.	-291.
ALL	STIRL	DISTIL	0.	-0.269	0.	0.222	0.04	60.	278.	34.	218.	549.	66.	0.53	6285.	0.	912.	-2145.
20	STIRL	RESIDU	0.	-0.045	0.	0.046	0.11	-25.	6.	-5.	3.	51.	-6.	0.20	1581.	0.	-14.	-215.
22	STIRL	RESIDU	0.	-0.006	0.	0.005	0.08	-2.	3.	-1.	1.	8.	-1.	0.20	206.	0.	47.	-14.
26	STIRL	RESIDU	0.	-0.062	0.	0.050	0.09	-22.	6.	-5.	13.	61.	-7.	0.26	990.	0.	298.	-43.
28	STIRL	RESIDU	0.	-0.034	0.	0.024	0.04	-14.	39.	-4.	2.	61.	-12.	0.17	900.	0.	252.	-236.
29	STIRL	RESIDU	0.	-0.032	0.	0.023	0.06	-11.	18.	-4.	5.	43.	-8.	0.20	496.	0.	154.	-138.
ALL	STIRL	RESIDU	0.	-0.269	0.	0.222	0.04	-112.	108.	-27.	36.	337.	-52.	0.21	6277.	0.	1109.	-973.
20	HEGT85	COAL-A	0.	-0.049	0.	0.038	0.09	17.	-39.	-2.	45.	10.	5.	0.25	-8761.	0.	-2487.	-1386.
22	HEGT85	COAL-A	0.	-0.008	0.	0.002	0.04	5.	-5.	-0.	8.	1.	0.	0.23	-278.	0.	-71.	-40.
24	HEGT85	COAL-A	0.	-0.045	0.	0.051	0.17	-6.	-27.	-2.	25.	26.	3.	0.60	-11461.	0.	-3121.	-1862.
26	HEGT85	COAL-A	0.	-0.118	0.	0.020	0.04	19.	-71.	-6.	64.	4.	2.	0.23	-1206.	0.	-223.	-108.
28	HEGT85	COAL-A	0.	-0.047	0.	0.011	0.02	-2.	-29.	-2.	17.	3.	1.	0.25	-469.	0.	-79.	-31.
33	HEGT85	COAL-A	0.	-0.042	0.	0.007	0.00	-8.	-25.	-2.	8.	2.	1.	0.17	-828.	0.	-186.	-99.
ALL	HEGT85	COAL-A	0.	-0.414	0.	0.172	0.03	33.	-262.	-21.	222.	61.	17.	0.24	-30814.	0.	-8261.	-4724.
20	HEGT60	COAL-A	0.	-0.064	0.	0.030	0.07	15.	-49.	-3.	46.	4.	4.	0.24	-9185.	0.	-2645.	-1487.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

REPORT 6.1 FUEL AND EMISSIONS LEVEL SAVINGS (SAVINGS ARE POSITIVE)

TIME 1990 ALL

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	****DIRECT***** OIL+GAS	COAL	----TOTAL---- OIL+GAS	COAL	FESR NOX	FUEL SAVINGS ------DIRECT------ SOX	PART	EMISSIONS SAVINGS ********TOTAL******** NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER--- TOTAL EXPORT MWH	COST	LAEC SAVED
22	HEGT60	COAL-A	0.	-0.008	0.	0.002	0.04	4.	-5.	-0.	8.	1.	0.	0.23	-258.	0.	-66.	-36.
24	HEGT60	COAL-A	0.	-0.139	0.	0.116	0.38	-20.	-83.	-7.	62.	56.	8.	0.49	-18415.	0.	-4639.	-2820.
26	HEGT60	COAL-A	0.	-0.112	0.	0.026	0.05	19.	-67.	-6.	63.	8.	3.	0.24	-1032.	0.	-171.	-72.
28	HEGT60	COAL-A	0.	-0.042	0.	0.010	0.02	30.	-26.	-2.	46.	2.	1.	0.20	-1240.	0.	-285.	-151.
29	HEGT60	COAL-A	0.	-0.055	0.	0.001	0.00	23.	-33.	-3.	41.	-2.	1.	0.19	-310.	0.	-57.	-32.
33	HEGT60	COAL-A	0	-0.063	0.	0.004	0.00	-9.	-38.	-3.	12.	-1.	1.	0.16	-14.	0.	-15.	-3.
ALL	HEGT60	COAL-A	0.	-0.661	0.	0.258	0.05	85.	-413.	-33.	381.	92.	25.	0.22	-41787.	0.	-11083.	-6314.
20	HEGT00	COAL-A	0.	-0.054	0.	0.022	0.05	12.	-40.	-3.	37.	3.	3.	0.22	-5178.	0.	-1500.	-821.
22	HEGT00	COAL-A	0.	-0.008	0.	0.002	0.05	4.	-5.	-0.	7.	1.	0.	0.23	-227.	0.	-58.	-32.
24	HEGT00	COAL-A	0.	-0.084	0.	0.121	0.40	-11.	-50.	-4.	54.	61.	8.	0.65	-15655.	0.	-4161.	-2418.
26	HEGT00	COAL-A	0.	-0.087	0.	0.025	0.05	15.	-52.	-4.	51.	9.	2.	0.24	-564.	0.	-67.	-14.
28	HEGT00	COAL-A	0.	-0.417	0.	0.077	0.13	317.	-250.	-21.	476.	20.	8.	0.26	-7479.	0.	-1700.	-941.
29	HEGT00	COAL-A	0.	-0.046	0.	0.010	0.02	22.	-27.	-2.	40.	3.	1.	0.21	-155.	0.	-4.	8.
ALL	HEGT00	COAL-A	0.	-0.894	0.	0.331	0.06	463.	-546.	-45.	857.	125.	30.	0.24	-37641.	0.	-9634.	-5426.
20	FCMCCL	COAL	0.	-0.033	0.	0.030	0.09	7.	16.	2.	30.	56.	8.	0.46	-5788.	0.	-1729.	-990.
22	FCMCCL	COAL	0.	-0.005	0.	0.005	0.10	2.	4.	0.	5.	9.	1.	0.40	-209.	0.	-50.	-27.
26	FCMCCL	COAL	0.	-0.034	0.	0.039	0.07	15.	26.	2.	39.	66.	6.	0.75	-492.	0.	-42.	5.
28	FCMCCL	COAL	0.	-0.022	0.	0.025	0.04	9.	16.	1.	24.	42.	4.	0.32	-690.	0.	-131.	-64.
29	FCMCCL	COAL	0.	-0.026	0.	0.029	0.07	11.	19.	1.	29.	50.	5.	0.41	-181.	0.	19.	33.
ALL	FCMCCL	COAL	0.	-0.194	0.	0.222	0.04	71.	132.	11.	206.	361.	39.	0.45	-11936.	0.	-3134.	-1691.
20	FCSTCL	COAL	0.	-0.031	0.	0.039	0.10	1.	5.	1.	23.	45.	7.	0.38	-5572.	0.	-1742.	-1024.
22	FCSTCL	COAL	0.	-0.004	0.	0.006	0.10	1.	2.	0.	5.	8.	1.	0.35	-191.	0.	-47.	-25.
26	FCSTCL	COAL	0.	-0.033	0.	0.041	0.07	10.	18.	1.	34.	58.	6.	0.66	-463.	0.	-34.	11.
28	FCSTCL	COAL	0.	-0.023	0.	0.028	0.05	5.	13.	1.	22.	41.	4.	0.35	-501.	0.	-77.	-26.
29	FCSTCL	COAL	0.	-0.025	0.	0.031	0.07	8.	14.	1.	26.	44.	4.	0.37	-156.	0.	29.	40.
33	FCSTCL	COAL	0.	-0.013	0.	0.017	0.01	1.	7.	1.	11.	24.	2.	0.98	-219.	0.	-26.	-2.
ALL	FCSTCL	COAL	0.	-0.204	0.	0.253	0.05	42.	93.	8.	190.	345.	38.	0.44	-11150.	0.	-2977.	-1610.
20	IGGTST	COAL	0.	-0.038	0.	0.032	0.08	-21.	-32.	1.	2.	8.	7.	0.11	-6010.	0.	-1903.	-1143.
22	IGGTST	COAL	0.	-0.006	0.	0.004	0.08	-2.	-3.	0.	1.	2.	1.	0.11	-192.	0.	-49.	-27.
26	IGGTST	COAL	0.	-0.042	0.	0.032	0.06	-15.	-25.	2.	9.	15.	6.	0.21	-409.	0.	-22.	16.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

COGENERATION REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	FUEL SAVINGS DIRECT OIL+GAS	FUEL SAVINGS DIRECT COAL	FUEL SAVINGS TOTAL OIL+GAS	FUEL SAVINGS TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	EMISSIONS SAVINGS DIRECT SOX	EMISSIONS SAVINGS DIRECT PART	EMISSIONS SAVINGS TOTAL NOX	EMISSIONS SAVINGS TOTAL SOX	EMISSIONS SAVINGS TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
28	IGGTST	COAL	0.	-0.025	0.	0.018	0.03	-11.	-15.	1.	3.	8.	4.	0.09	-359.	0.	-53.	-17.
29	IGGTST	COAL	0.	-0.032	0.	0.024	0.06	-11.	-19.	1.	7.	11.	5.	0.11	-90.	0.	44.	46.
ALL	IGGTST	COAL	0.	-0.232	0.	0.181	0.03	-97.	-154.	9.	37.	74.	37.	0.12	-11512.	0.	-3232.	-1834.
20	GTSOAR	RESIDU	-0.172	0.124	-0.172	0.218	0.11	2.	10.	5.	32.	61.	10.	0.51	878.	0.	-161.	-291.
22	GTSOAR	RESIDU	-0.034	0.028	-0.034	0.038	0.09	5.	4.	1.	8.	10.	2.	0.52	212.	0.	50.	-12.
26	GTSOAR	RESIDU	-0.255	0.178	-0.255	0.316	0.11	23.	11.	7.	68.	87.	15.	0.55	1527.	0.	443.	8.
28	GTSOAR	RESIDU	-0.355	0.306	-0.355	0.382	0.05	55.	50.	12.	80.	92.	17.	0.50	1439.	0.	373.	-241.
29	GTSOAR	RESIDU	-0.188	0.155	-0.188	0.210	0.05	25.	22.	6.	43.	52.	10.	0.51	649.	0.	188.	-120.
ALL	GTSOAR	RESIDU	-1.463	1.154	-1.463	1.700	0.04	161.	142.	46.	336.	440.	78.	0.52	6864.	0.	1302.	-955.
20	GTAC08	RESIDU	0.	-0.045	0.	0.049	0.12	-50.	7.	-5.	-21.	53.	-6.	0.12	1428.	0.	-14.	-199.
22	GTAC08	RESIDU	0.	-0.005	0.	0.005	0.10	-5.	4.	-1.	-2.	8.	-1.	0.14	229.	0.	56.	-7.
26	GTAC08	RESIDU	0.	-0.052	0.	0.060	0.11	-35.	10.	-4.	-0.	65.	-6.	0.22	1366.	0.	422.	45.
28	GTAC08	RESIDU	0.	-0.032	0.	0.036	0.06	-32.	42.	-4.	-12.	70.	-12.	0.14	1374.	0.	392.	-161.
29	GTAC08	RESIDU	0.	-0.026	0.	0.030	0.07	-26.	21.	-3.	-9.	46.	-7.	0.14	729.	0.	231.	-83.
ALL	GTAC08	RESIDU	0.	-0.238	0.	0.269	0.05	-220.	124.	-25.	-67.	361.	-48.	0.16	7651.	0.	1623.	-605.
20	GTAC12	RESIDU	0.	-0.044	0.	0.050	0.12	-47.	7.	-5.	-18.	54.	-6.	0.14	1396.	0.	-23.	-205.
22	GTAC12	RESIDU	0.	-0.005	0.	0.005	0.10	-4.	4.	-1.	-1.	8.	-1.	0.15	228.	0.	56.	-7.
26	GTAC12	RESIDU	0.	-0.066	0.	0.072	0.13	-41.	9.	-5.	2.	77.	-7.	0.22	1589.	0.	493.	56.
28	GTAC12	RESIDU	0.	-0.032	0.	0.036	0.06	-30.	41.	-3.	-10.	70.	-12.	0.14	1357.	0.	387.	-161.
29	GTAC12	RESIDU	0.	-0.027	0.	0.029	0.07	-24.	20.	-3.	-7.	45.	-7.	0.15	686.	0.	218.	-91.
ALL	GTAC12	RESIDU	0.	-0.253	0.	0.281	0.05	-213.	120.	-24.	-52.	372.	-47.	0.17	7690.	0.	1656.	-597.
20	GTAC16	RESIDU	0.	-0.044	0.	0.050	0.12	-46.	7.	-4.	-17.	54.	-6.	0.14	1266.	0.	-55.	-224.
22	GTAC16	RESIDU	0.	-0.005	0.	0.005	0.10	-4.	4.	-1.	-1.	8.	-1.	0.15	224.	0.	55.	-8.
24	GTAC16	RESIDU	0.	-0.250	0.	0.005	0.02	-97.	-99.	-13.	-17.	32.	-8.	-0.08	1714.	0.	-295.	-372.
26	GTAC16	RESIDU	0.	-0.067	0.	0.071	0.13	-39.	9.	-5.	3.	77.	-7.	0.23	1543.	0.	477.	44.
28	GTAC16	RESIDU	0.	-0.044	0.	0.044	0.07	-38.	49.	-4.	-13.	86.	-14.	0.14	1664.	0.	469.	-209.
29	GTAC16	RESIDU	0.	-0.028	0.	0.028	0.07	-23.	20.	-3.	-7.	45.	-7.	0.15	663.	0.	209.	-98.
ALL	GTAC16	RESIDU	0.	-0.627	0.	0.290	0.05	-355.	-15.	-44.	-74.	432.	-62.	0.17	10136.	0.	1231.	-1242.
20	GTWC16	RESIDU	0.	-0.050	0.	0.044	0.11	-48.	5.	-5.	-20.	51.	-6.	0.12	962.	0.	-152.	-291.

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	---EMISSIONS SAVINGS--- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
22	GTWC16	RESIDU	0.	-0.005	0.	0.005	0.09	-4.	4.	-1.	-1.	8.	-1.	0.14	216.	0.	51.	-11.
24	GTWC16	RESIDU	0.	-0.050	0.	0.001	0.00	-27.	-20.	-3.	-11.	7.	-2.	-0.12	374.	0.	41.	-9.
26	GTWC16	RESIDU	0.	-0.073	0.	0.064	0.12	-43.	6.	-5.	-0.	74.	-7.	0.21	1552.	0.	459.	22.
28	GTWC16	RESIDU	0.	-0.045	0.	0.040	0.07	-38.	47.	-4.	-14.	82.	-14.	0.13	1566.	0.	435.	-216.
29	GTWC16	RESIDU	0.	-0.030	0.	0.026	0.06	-24.	19.	-3.	-8.	44.	-7.	0.14	673.	0.	206.	-103.
ALL	GTWC16	RESIDU	0.	-0.364	0.	0.259	0.05	-266.	88.	-31.	-77.	383.	-56.	0.16	7687.	0.	1496.	-873.
20	CC1626	RESIDU	0.	-0.049	0.	0.044	0.11	-43.	5.	-4.	-15.	51.	-6.	0.14	792.	0.	-277.	-412.
22	CC1626	RESIDU	0.	-0.005	0.	0.005	0.09	-4.	4.	-0.	-1.	8.	-1.	0.15	214.	0.	49.	-14.
24	CC1626	RESIDU	0.	-0.217	0.	0.035	0.12	-82.	-86.	-11.	-2.	45.	-5.	0.11	1067.	0.	-495.	-517.
26	CC1626	RESIDU	0.	-0.074	0.	0.064	0.12	-37.	6.	-5.	6.	74.	-7.	0.23	1499.	0.	438.	3.
28	CC1626	RESIDU	0.	-0.033	0.	0.028	0.05	-27.	32.	-3.	-9.	57.	-10.	0.14	973.	0.	269.	-174.
29	CC1626	RESIDU	0.	-0.030	0.	0.025	0.06	-23.	19.	-3.	-6.	44.	-7.	0.15	670.	0.	201.	-110.
33	CC1626	RESIDU	0.	-0.073	0.	0.028	0.02	-49.	-25.	-6.	-17.	27.	-4.	0.08	956.	0.	167.	50.
ALL	CC1626	RESIDU	0.	-0.691	0.	0.328	0.06	-379.	-67.	-47.	-64.	438.	-56.	0.14	8848.	0.	505.	-1682.
20	CC1622	RESIDU	0.	-0.047	0.	0.046	0.11	-43.	6.	-4.	-14.	52.	-6.	0.15	1034.	0.	-212.	-371.
22	CC1622	RESIDU	0.	-0.005	0.	0.005	0.09	-4.	4.	-0.	-1.	8.	-1.	0.16	221.	0.	51.	-12.
24	CC1622	RESIDU	0.	-0.220	0.	0.032	0.10	-83.	-87.	-12.	-4.	43.	-6.	0.08	1459.	0.	-410.	-474.
26	CC1622	RESIDU	0.	-0.071	0.	0.067	0.12	-36.	7.	-5.	6.	75.	-7.	0.23	1498.	0.	448.	15.
28	CC1622	RESIDU	0.	-0.032	0.	0.029	0.05	-27.	32.	-3.	-9.	58.	-10.	0.14	982.	0.	276.	-168.
29	CC1622	RESIDU	0.	-0.029	0.	0.027	0.07	-22.	19.	-3.	-6.	44.	-7.	0.15	664.	0.	204.	-106.
33	CC1622	RESIDU	0.	-0.025	0.	0.023	0.01	-23.	-6.	-2.	-8.	19.	-1.	0.16	336.	0.	97.	35.
ALL	CC1622	RESIDU	0.	-0.617	0.	0.329	0.06	-344.	-37.	-42.	-52.	431.	-53.	0.17	8918.	0.	653.	-1555.
20	CC1222	RESIDU	0.	-0.047	0.	0.047	0.11	-43.	6.	-4.	-14.	52.	-5.	0.15	1148.	0.	-184.	-354.
22	CC1222	RESIDU	0.	-0.005	0.	0.005	0.09	-4.	4.	-0.	-1.	8.	-1.	0.16	226.	0.	52.	-11.
24	CC1222	RESIDU	0.	-0.219	0.	0.032	0.11	-83.	-87.	-12.	-4.	44.	-6.	0.09	1688.	0.	-354.	-442.
26	CC1222	RESIDU	0.	-0.070	0.	0.067	0.12	-36.	8.	-5.	7.	75.	-6.	0.24	1532.	0.	456.	21.
28	CC1222	RESIDU	0.	-0.031	0.	0.029	0.05	-26.	32.	-3.	-9.	58.	-10.	0.14	1000.	0.	281.	-164.
29	CC1222	RESIDU	0.	-0.029	0.	0.027	0.07	-22.	19.	-3.	-6.	44.	-7.	0.15	676.	0.	207.	-103.
33	CC1222	RESIDU	0.	-0.025	0.	0.024	0.01	-23.	-6.	-2.	-8.	19.	-1.	0.16	352.	0.	101.	38.
ALL	CC1222	RESIDU	0.	-0.614	0.	0.332	0.06	-342.	-35.	-42.	-50.	432.	-52.	0.17	9534.	0.	809.	-1461.
20	CC0822	RESIDU	0.	-0.044	0.	0.050	0.12	-42.	7.	-4.	-14.	53.	-5.	0.15	988.	0.	-210.	-362.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS***** DIRECT OIL+GAS	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
22	CC0822	RESIDU	0.	-0.005	0.	0.005	0.10	-4.	4.	-0.	-1.	8.	-1.	0.16	221.	0.	53.	-11.
24	CC0822	RESIDU	0.	-0.226	0.	0.016	0.05	-88.	-90.	-12.	-11.	35.	-7.	-0.02	1327.	0.	-462.	-522.
26	CC0822	RESIDU	0.	-0.066	0.	0.072	0.13	-36.	9.	-5.	6.	77.	-6.	0.24	1579.	0.	485.	45.
28	CC0822	RESIDU	0.	-0.029	0.	0.031	0.05	-27.	33.	-3.	-9.	58.	-9.	0.15	996.	0.	287.	-157.
29	CC0822	RESIDU	0.	-0.027	0.	0.029	0.07	-23.	20.	-3.	-6.	45.	-7.	0.16	684.	0.	216.	-95.
ALL	CC0822	RESIDU	0.	-0.582	0.	0.299	0.06	-322.	-24.	-40.	-51.	409.	-53.	0.18	8517.	0.	540.	-1618.
20	STIG15	RESIDU	0.	-0.077	0.	0.016	0.04	-54.	-6.	-2.	-26.	39.	-5.	0.07	487.	0.	-379.	-480.
22	STIG15	RESIDU	0.	-0.008	0.	0.002	0.03	-5.	2.	-0.	-2.	7.	-1.	0.09	216.	0.	41.	-23.
24	STIG15	RESIDU	0.	-0.215	0.	0.042	0.14	-77.	-86.	-11.	4.	48.	-4.	0.20	937.	0.	-406.	-387.
26	STIG15	RESIDU	0.	-0.114	0.	0.024	0.04	-51.	-10.	-5.	-9.	57.	-8.	0.11	1410.	0.	279.	-158.
28	STIG15	RESIDU	0.	-0.104	0.	0.022	0.04	-65.	-20.	-3.	-26.	42.	-4.	0.03	994.	0.	172.	-113.
33	STIG15	RESIDU	0.	-0.040	0.	0.006	0.01	-28.	-12.	-1.	-13.	13.	-1.	-0.02	287.	0.	31.	-30.
ALL	STIG15	RESIDU	0.	-0.719	0.	0.146	0.03	-360.	-169.	-29.	-92.	265.	-30.	0.06	5570.	0.	-338.	-1531.
20	STIG10	RESIDU	0.	-0.070	0.	0.023	0.06	-53.	-3.	-2.	-24.	42.	-4.	0.08	902.	0.	-253.	-393.
22	STIG10	RESIDU	0.	-0.008	0.	0.002	0.05	-5.	3.	-0.	-2.	7.	-1.	0.11	223.	0.	45.	-19.
24	STIG10	RESIDU	0.	-0.226	0.	0.030	0.10	-83.	-90.	-11.	-2.	43.	-5.	0.14	1311.	0.	-345.	-369.
26	STIG10	RESIDU	0.	-0.104	0.	0.034	0.06	-49.	-6.	-4.	-7.	61.	-7.	0.14	1531.	0.	345.	-100.
28	STIG10	RESIDU	0.	-0.062	0.	0.020	0.03	-42.	-8.	-2.	-16.	33.	-3.	0.07	741.	0.	162.	-55.
33	STIG10	RESIDU	0.	-0.037	0.	0.012	0.01	-28.	-11.	-1.	-12.	14.	-0.	0.02	318.	0.	53.	-11.
ALL	STIG10	RESIDU	0.	-0.658	0.	0.159	0.03	-336.	-149.	-26.	-82.	261.	-27.	0.10	6530.	0.	9.	-1230.
20	STIG1S	RESIDU	0.	-0.067	0.	0.026	0.06	-53.	-2.	-2.	-24.	43.	-4.	0.09	1019.	0.	-213.	-365.
22	STIG1S	RESIDU	0.	-0.007	0.	0.003	0.05	-5.	3.	-0.	-2.	7.	-1.	0.11	226.	0.	47.	-17.
24	STIG1S	RESIDU	0.	-0.242	0.	0.014	0.05	-90.	-96.	-12.	-10.	36.	-6.	0.05	1447.	0.	-366.	-411.
26	STIG1S	RESIDU	0.	-0.099	0.	0.039	0.07	-49.	-4.	-4.	-7.	63.	-7.	0.15	1555.	0.	366.	-81.
28	STIG1S	RESIDU	0.	-0.045	0.	0.018	0.03	-32.	-4.	-1.	-13.	27.	-2.	0.09	604.	0.	140.	-34.
33	STIG1S	RESIDU	0.	-0.035	0.	0.014	0.01	-28.	-10.	-1.	-13.	15.	-0.	0.03	337.	0.	63.	-2.
ALL	STIG1S	RESIDU	0.	-0.646	0.	0.148	0.03	-336.	-149.	-25.	-89.	250.	-26.	0.11	6766.	0.	48.	-1186.
20	DEADV3	RESIDU	0.	-0.047	0.	0.042	0.10	-67.	5.	-4.	-40.	49.	-6.	0.03	-597.	0.	-528.	-503.
22	DEADV3	RESIDU	0.	-0.006	0.	0.004	0.07	-7.	3.	-1.	-5.	8.	-1.	0.04	155.	0.	32.	-24.
24	DEADV3	RESIDU	0.	-0.219	0.	0.038	0.12	-85.	-87.	-11.	-4.	47.	-5.	0.10	-1827.	0.	-1086.	-780.

ISE PEG AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	****DIRECT FUEL SAVINGS**** OIL+GAS	COAL	----TOTAL FUEL SAVINGS---- OIL+GAS	COAL	FESR	DIRECT EMISSIONS SAVINGS NOX	SOX	PART	********TOTAL EMISSIONS SAVINGS******** NOX	SOX	PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
26	DEADV3	RESIDU	0.	-0.090	0.	0.046	0.09	-59.	-0.	-6.	-17.	67.	-8.	0.09	978.	0.	265.	-117.
28	DEADV3	RESIDU	0.	-0.041	0.	0.022	0.04	-47.	-2.	-3.	-28.	29.	-4.	-0.11	313.	0.	90.	-53.
33	DEADV3	RESIDU	0.	-0.069	0.	0.031	0.02	-68.	-24.	-5.	-36.	29.	-3.	-0.11	392.	0.	44.	-13.
ALL	DEADV3	RESIDU	0.	-0.619	0.	0.242	0.05	-437.	-138.	-40.	-169.	297.	-36.	-0.05	-767.	0.	-1549.	-1951.
20	DEHTPM	RESIDU	0.	-0.040	0.	0.054	0.13	-68.	9.	-4.	-39.	55.	-5.	0.07	-538.	0.	-524.	-502.
22	DEHTPM	RESIDU	0.	-0.005	0.	0.005	0.10	-7.	4.	-0.	-4.	8.	-1.	0.07	153.	0.	37.	-18.
24	DEHTPM	RESIDU	0.	-0.139	0.	0.004	0.01	-69.	-55.	-8.	-24.	19.	-5.	-0.28	-2199.	0.	-1083.	-783.
26	DEHTPM	RESIDU	0.	-0.067	0.	0.071	0.13	-61.	9.	-5.	-18.	77.	-7.	0.13	992.	0.	342.	-33.
28	DEHTPM	RESIDU	0.	-0.043	0.	0.036	0.06	-69.	46.	-4.	-46.	79.	-14.	0.03	820.	0.	247.	-320.
29	DEHTPM	RESIDU	0.	-0.031	0.	0.024	0.06	-49.	18.	-3.	-32.	43.	-7.	0.02	357.	0.	124.	-153.
ALL	DEHTPM	RESIDU	0.	-0.468	0.	0.280	0.05	-464.	45.	-36.	-236.	405.	-57.	0.06	-598.	0.	-1233.	-2606.
20	DESOA3	DISTIL	-0.166	0.117	-0.166	0.205	0.09	-101.	54.	6.	-74.	96.	3.	0.21	691.	0.	-267.	-518.
22	DESOA3	DISTIL	-0.035	0.028	-0.035	0.038	0.06	-8.	11.	1.	-5.	16.	1.	0.31	166.	0.	28.	-53.
24	DESOA3	DISTIL	-0.227	0.002	-0.227	0.259	0.10	-28.	-36.	0.	53.	98.	6.	0.44	647.	0.	-696.	-671.
26	DESOA3	DISTIL	-0.276	0.178	-0.276	0.316	0.07	-37.	62.	9.	5.	129.	6.	0.30	765.	0.	119.	-399.
28	DESOA3	DISTIL	-0.145	0.087	-0.145	0.171	0.04	-110.	29.	4.	-84.	71.	3.	-0.53	332.	0.	41.	-213.
33	DESOA3	DISTIL	-0.130	0.027	-0.130	0.166	0.02	-192.	-5.	1.	-148.	67.	4.	-0.52	214.	0.	-119.	-197.
ALL	DESOA3	DISTIL	-1.264	0.567	-1.264	1.490	0.04	-614.	149.	29.	-327.	614.	30.	-0.29	3629.	0.	-1150.	-2643.
20	DESOA3	RESIDU	-0.166	0.117	-0.166	0.205	0.09	-265.	8.	5.	-237.	56.	10.	-0.60	691.	0.	-231.	-340.
22	DESOA3	RESIDU	-0.035	0.028	-0.035	0.038	0.06	-29.	4.	1.	-26.	9.	2.	-0.40	166.	0.	33.	-24.
24	DESOA3	RESIDU	-0.227	0.002	-0.227	0.259	0.10	-73.	-84.	-2.	10.	56.	13.	-0.12	647.	0.	-530.	-484.
26	DESOA3	RESIDU	-0.276	0.178	-0.276	0.316	0.07	-163.	3.	7.	-119.	78.	15.	-0.41	765.	0.	191.	-172.
28	DESOA3	RESIDU	-0.145	0.087	-0.145	0.171	0.04	-271.	-3.	3.	-244.	43.	8.	-2.17	332.	0.	84.	-91.
33	DESOA3	RESIDU	-0.130	0.027	-0.130	0.166	0.02	-420.	-33.	0.	-375.	43.	9.	-2.14	214.	0.	-42.	-90.
ALL	DESOA3	RESIDU	-1.264	0.567	-1.264	1.490	0.04	-1574.	-136.	18.	-1277.	369.	73.	-1.66	3629.	0.	-637.	-1548.
20	GTSOAD	DISTIL	-0.169	0.124	-0.169	0.218	0.12	14.	47.	6.	43.	93.	5.	0.70	1530.	0.	-29.	-375.
22	GTSOAD	DISTIL	-0.033	0.028	-0.033	0.038	0.09	7.	12.	1.	10.	16.	1.	0.71	235.	0.	53.	-35.
26	GTSOAD	DISTIL	-0.248	0.178	-0.248	0.316	0.13	43.	67.	9.	85.	135.	7.	0.73	1656.	0.	446.	-152.
28	GTSOAD	DISTIL	-0.309	0.274	-0.309	0.343	0.06	74.	114.	14.	94.	143.	5.	0.72	1407.	0.	365.	-422.
29	GTSOAD	DISTIL	-0.183	0.155	-0.183	0.210	0.07	39.	63.	8.	55.	86.	4.	0.71	705.	0.	196.	-246.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT ØIL+GAS	DIRECT COAL	TOTAL ØIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NØX	DIRECT SØX	DIRECT PART	********TOTAL******** NØX	TOTAL SØX	TOTAL PART	EMSR	CAPITL SAVING	ELECTR. POWER TOTAL EXPORT MWH	COST	LAEC SAVED
ALL	GTSØAD	DISTIL	-1.378	1.111	-1.378	1.645	0.05	258.	443.	56.	420.	694.	32.	0.72	8087.	0.	15[illegible]7.	-1797.
20	GTRAØ8	DISTIL	0.	-0.047	0.	0.047	0.11	-12.	33.	5.	19.	85.	13.	0.48	635.	0.	-25[illegible]	-505.
22	GTRAØ8	DISTIL	0.	-0.005	0.	0.005	0.09	1.	8.	1.	4.	13.	1.	0.49	207.	0.	45.	-40.
24	GTRAØ8	DISTIL	0.	-0.228	0.	0.029	0.10	-56.	-63.	-4.	26.	77.	11.	0.45	699.	0.	-630.	-612.
26	GTRAØ8	DISTIL	0.	-0.075	0.	0.063	0.12	-4.	36.	5.	40.	111.	13.	0.53	1442.	0.	374.	-205.
28	GTRAØ8	DISTIL	0.	-0.076	0.	0.042	0.07	17.	123.	14.	55.	188.	21.	0.47	2086.	0.	484.	-799.
29	GTRAØ8	DISTIL	0.	-0.033	0.	0.022	0.05	2.	40.	5.	20.	70.	8.	0.48	631.	0.	160.	-276.
33	GTRAØ8	DISTIL	0.	-0.070	0.	0.028	0.02	-28.	-14.	-1.	3.	40.	5.	0.45	823.	0.	91.	32.
ALL	GTRAØ8	DISTIL	0.	-0.740	0.	0.329	0.06	-111.	224.	34.	233.	811.	100.	0.48	9051.	0.	377.	-3426.
20	GTRA12	DISTIL	0.	-0.046	0.	0.047	0.12	-11.	33.	5.	19.	86.	13.	0.48	754.	0.	-221.	-487.
22	GTRA12	DISTIL	0.	-0.005	0.	0.005	0.09	1.	8.	1.	4.	13.	1.	0.49	208.	0.	46.	-39.
24	GTRA12	DISTIL	0.	-0.227	0.	0.030	0.10	-56.	-63.	-4.	26.	77.	11.	0.45	898.	0.	-580.	-582.
26	GTRA12	DISTIL	0.	-0.073	0.	0.065	0.12	-4.	36.	5.	40.	112.	13.	0.53	1430.	0.	377.	-199.
28	GTRA12	DISTIL	0.	-0.070	0.	0.044	0.07	17.	119.	13.	54.	181.	20.	0.48	2030.	0.	485.	-749.
29	GTRA12	DISTIL	0.	-0.032	0.	0.024	0.06	3.	40.	5.	21.	71.	8.	0.48	637.	0.	166.	-270.
33	GTRA12	DISTIL	0.	-0.050	0.	0.020	0.01	-20.	-10.	-0.	2.	28.	4.	0.45	587.	0.	65.	-22.
ALL	GTRA12	DISTIL	0.	-0.701	0.	0.327	0.06	-99.	227.	34.	232.	792.	98.	0.48	9122.	0.	471.	-3274.
20	GTRA16	DISTIL	0.	-0.046	0.	0.047	0.12	-12.	33.	5.	19.	86.	13.	0.48	605.	0.	-255.	-506.
22	GTRA16	DISTIL	0.	-0.005	0.	0.005	0.09	1.	8.	1.	4.	13.	1.	0.49	202.	0.	45.	-40.
24	GTRA16	DISTIL	0.	-0.233	0.	0.024	0.08	-58.	-65.	-4.	24.	75.	11.	0.43	627.	0.	-667.	-644.
26	GTRA16	DISTIL	0.	-0.072	0.	0.065	0.12	-4.	36.	5.	40.	112.	13.	0.53	1390.	0.	370.	-202.
28	GTRA16	DISTIL	0.	-0.064	0.	0.043	0.07	16.	113.	13.	51.	172.	19.	0.48	1868.	0.	453.	-708.
29	GTRA16	DISTIL	0.	-0.031	0.	0.024	0.06	3.	40.	5.	21.	71.	8.	0.48	623.	0.	165.	-270.
33	GTRA16	DISTIL	0.	-0.016	0.	0.014	0.01	-9.	-0.	0.	0.	16.	2.	0.48	177.	0.	43.	-5.
ALL	GTRA16	DISTIL	0.	-0.657	0.	0.313	0.06	-90.	232.	34.	223.	764.	94.	0.49	7702.	0.	213.	-3330.
20	GTR2Ø8	DISTIL	0.	-0.046	0.	0.047	0.12	-13.	33.	5.	17.	86.	13.	0.48	969.	0.	-170.	-458.
22	GTR2Ø8	DISTIL	0.	-0.005	0.	0.005	0.09	0.	8.	1.	4.	13.	1.	0.48	216.	0.	48.	-38.
24	GTR2Ø8	DISTIL	0.	-0.162	0.	0.002	0.01	-43.	-45.	-3.	10.	45.	7.	0.34	-199.	0.	-745.	-660.
26	GTR2Ø8	DISTIL	0.	-0.073	0.	0.065	0.12	-6.	36.	5.	38.	112.	13.	0.52	1533.	0.	403.	-184.
28	GTR2Ø8	DISTIL	0.	-0.053	0.	0.038	0.07	13.	97.	11.	43.	147.	16.	0.47	1690.	0.	415.	-586.

ISE PEØ AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS = REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)

EMISSION UNITS= TIME 1990 LEVEL ALL

COST =$*10**9 TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	ELECTRIC POWER COST	ELECTRIC POWER LAEC SAVED
29	GTR208	DISTIL	0.	-0.031	0.	0.025	0.06	2.	41.	5.	20.	71.	8.	0.48	652.	0.	173.	-264.
ALL	GTR208	DISTIL	0.	-0.532	0.	0.252	0.05	-68.	243.	33.	188.	679.	83.	0.49	6964.	0.	177.	-3139.
20	GTR212	DISTIL	0.	-0.047	0.	0.047	0.11	-13.	33.	5.	18.	85.	13.	0.48	857.	0.	-199.	-476.
22	GTR212	DISTIL	0.	-0.005	0.	0.005	0.09	1.	8.	1.	4.	13.	1.	0.48	212.	0.	47.	-39.
24	GTR212	DISTIL	0.	-0.246	0.	0.010	0.03	-62.	-68.	-4.	20.	71.	11.	0.38	1034.	0.	-625.	-651.
26	GTR212	DISTIL	0.	-0.073	0.	0.065	0.12	-6.	36.	5.	39.	112.	13.	0.53	1503.	0.	395.	-189.
28	GTR212	DISTIL	0.	-0.056	0.	0.040	0.07	14.	101.	11.	45.	154.	17.	0.48	1741.	0.	428.	-617.
29	GTR212	DISTIL	0.	-0.031	0.	0.025	0.06	2.	41.	5.	20.	71.	8.	0.48	651.	0.	173.	-264.
ALL	GTR212	DISTIL	0.	-0.653	0.	0.273	0.05	-90.	214.	32.	208.	723.	90.	0.49	8553.	0.	312.	-3187.
20	GTR216	DISTIL	0.	-0.046	0.	0.048	0.12	-12.	33.	5.	18.	86.	13.	0.48	801.	0.	-208.	-479.
22	GTR216	DISTIL	0.	-0.005	0.	0.005	0.09	1.	8.	1.	4.	13.	1.	0.49	209.	0.	47.	-39.
24	GTR216	DISTIL	0.	-0.241	0.	0.015	0.05	-61.	-67.	-4.	22.	73.	11.	0.40	949.	0.	-625.	-639.
26	GTR216	DISTIL	0.	-0.072	0.	0.066	0.12	-5.	37.	5.	39.	112.	13.	0.53	1468.	0.	392.	-187.
28	GTR216	DISTIL	0.	-0.057	0.	0.042	0.07	15.	105.	12.	47.	159.	18.	0.48	1773.	0.	439.	-637.
29	GTR216	DISTIL	0.	-0.031	0.	0.025	0.06	3.	41.	5.	20.	71.	8.	0.48	637.	0.	171.	-264.
33	GTR216	DISTIL	0.	-0.007	0.	0.007	0.00	-5.	-0.	0.	-0.	8.	1.	0.48	94.	0.	24.	-1.
ALL	GTR216	DISTIL	0.	-0.649	0.	0.295	0.06	-91.	220.	32.	214.	739.	91.	0.49	8396.	0.	339.	-3179.
20	GTRW08	DISTIL	0.	-0.054	0.	0.039	0.10	-14.	31.	5.	17.	83.	13.	0.47	538.	0.	-310.	-558.
22	GTRW08	DISTIL	0.	-0.006	0.	0.004	0.07	0.	7.	1.	4.	13.	1.	0.48	204.	0.	42.	-43.
24	GTRW08	DISTIL	0.	-0.232	0.	0.025	0.08	-57.	-64.	-4.	26.	76.	11.	0.45	539.	0.	-689.	-656.
26	GTRW08	DISTIL	0.	-0.085	0.	0.053	0.10	-7.	33.	4.	37.	108.	13.	0.51	1449.	0.	335.	-249.
28	GTRW08	DISTIL	0.	-0.080	0.	0.036	0.06	15.	119.	13.	53.	182.	20.	0.46	2022.	0.	447.	-808.
29	GTRW08	DISTIL	0.	-0.036	0.	0.019	0.05	2.	39.	4.	19.	69.	8.	0.47	633.	0.	147.	-291.
33	GTRW08	DISTIL	0.	-0.065	0.	0.025	0.02	-26.	-13.	-1.	3.	36.	5.	0.44	813.	0.	90.	-29.
ALL	GTRW08	DISTIL	0.	-0.775	0.	0.279	0.05	-119.	210.	33.	220.	788.	98.	0.47	8599.	0.	86.	-3654.
20	GTRW12	DISTIL	0.	-0.052	0.	0.041	0.10	-13.	31.	5.	18.	84.	13.	0.47	541.	0.	-300.	-546.
22	GTRW12	DISTIL	0.	-0.006	0.	0.004	0.08	1.	7.	1.	4.	13.	1.	0.48	205.	0.	43.	-42.
24	GTRW12	DISTIL	0.	-0.223	0.	0.033	0.11	-55.	-62.	-4.	28.	78.	11.	0.47	545.	0.	-651.	-615.
26	GTRW12	DISTIL	0.	-0.081	0.	0.057	0.10	-5.	34.	5.	39.	109.	13.	0.52	1450.	0.	351.	-231.
28	GTRW12	DISTIL	0.	-0.074	0.	0.041	0.07	17.	119.	13.	54.	183.	20.	0.47	2010.	0.	466.	-781.

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	EMISSIONS SAVINGS DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
29	GTRW12	DISTIL	0.	-0.034	0.	0.021	0.05	2.	40.	5.	20.	70.	8.	0.48	633.	0.	155.	-281.
33	GTRW12	DISTIL	0.	-0.060	0.	0.027	0.02	-24.	-12.	-0.	4.	36.	5.	0.46	789.	0.	99.	-15.
ALL	GTRW12	DISTIL	0.	-0.736	0.	0.311	0.06	-106.	218.	33.	231.	793.	98.	0.48	8548.	0.	226.	-3478.
20	GTRW16	DISTIL	0.	-0.052	0.	0.042	0.10	-13.	31.	5.	18.	84.	13.	0.47	416.	0.	-328.	-561.
22	GTRW16	DISTIL	0.	-0.006	0.	0.004	0.08	1.	7.	1.	4.	13.	1.	0.48	199.	0.	42.	-42.
24	GTRW16	DISTIL	0.	-0.228	0.	0.029	0.10	-56.	-63.	-4.	26.	77.	11.	0.45	315.	0.	-723.	-665.
26	GTRW16	DISTIL	0.	-0.080	0.	0.058	0.11	-6.	34.	5.	39.	110.	13.	0.52	1422.	0.	348.	-231.
28	GTRW16	DISTIL	0.	-0.068	0.	0.041	0.07	16.	114.	13.	51.	174.	19.	0.47	1863.	0.	439.	-737.
29	GTRW16	DISTIL	0.	-0.034	0.	0.022	0.05	2.	40.	5.	20.	70.	8.	0.48	633.	0.	158.	-278.
33	GTRW16	DISTIL	0.	-0.065	0.	0.027	0.02	-26.	-13.	-1.	3.	37.	5.	0.45	821.	0.	96.	-24.
ALL	GTRW16	DISTIL	0.	-0.740	0.	0.308	0.06	-113.	209.	32.	224.	784.	97.	0.48	7871.	0.	45.	-3524.
20	GTR308	DISTIL	0.	-0.056	0.	0.038	0.09	-16.	30.	5.	15.	83.	13.	0.46	894.	0.	-231.	-516.
22	GTR308	DISTIL	0.	-0.006	0.	0.004	0.07	0.	7.	1.	3.	13.	1.	0.47	214.	0.	43.	-43.
24	GTR308	DISTIL	0.	-0.051	0.	0.001	0.00	-17.	-14.	-1.	-1.	15.	2.	0.33	354.	0.	-5.	-60.
26	GTR308	DISTIL	0.	-0.089	0.	0.049	0.09	-11.	32.	4.	34.	107.	13.	0.49	1493.	0.	330.	-261.
28	GTR308	DISTIL	0.	-0.070	0.	0.028	0.05	10.	100.	11.	42.	154.	17.	0.46	1801.	0.	390.	-684.
29	GTR308	DISTIL	0.	-0.038	0.	0.017	0.04	0.	39.	4.	18.	69.	8.	0.46	667.	0.	148.	-294.
33	GTR308	DISTIL	0.	-0.077	0.	0.014	0.01	-32.	-16.	-1.	-2.	34.	5.	0.36	857.	0.	55.	-74.
ALL	GTR308	DISTIL	0.	-0.547	0.	0.213	0.04	-91.	251.	34.	154.	669.	82.	0.45	8866.	0.	1029.	-2727.
20	GTR312	DISTIL	0.	-0.052	0.	0.042	0.10	-13.	31.	5.	17.	84.	13.	0.47	759.	0.	-246.	-515.
22	GTR312	DISTIL	0.	-0.006	0.	0.004	0.08	0.	7.	1.	4.	13.	1.	0.48	212.	0.	45.	-41.
24	GTR312	DISTIL	0.	-0.238	0.	0.019	0.06	-59.	-66.	-4.	23.	74.	11.	0.42	891.	0.	-628.	-635.
26	GTR312	DISTIL	0.	-0.079	0.	0.059	0.11	-6.	35.	5.	38.	110.	13.	0.52	1494.	0.	370.	-216.
28	GTR312	DISTIL	0.	-0.058	0.	0.040	0.07	15.	103.	11.	46.	157.	17.	0.47	1778.	0.	431.	-635.
29	GTR312	DISTIL	0.	-0.033	0.	0.023	0.06	2.	40.	5.	20.	71.	8.	0.48	664.	0.	170.	-270.
33	GTR312	DISTIL	0.	-0.055	0.	0.018	0.01	-23.	-11.	-0.	1.	29.	4.	0.42	687.	0.	73.	-27.
ALL	GTR312	DISTIL	0.	-0.729	0.	0.288	0.05	-118.	196.	31.	210.	754.	94.	0.47	9095.	0.	301.	-3279.
20	GTR316	DISTIL	0.	-0.052	0.	0.041	0.10	-14.	31.	5.	17.	84.	13.	0.47	610.	0.	-282.	-536.
22	GTR316	DISTIL	0.	-0.006	0.	0.004	0.08	0.	7.	1.	4.	13.	1.	0.48	206.	0.	44.	-41.
24	GTR316	DISTIL	0.	-0.240	0.	0.017	0.06	-60.	-67.	-4.	23.	73.	11.	0.41	628.	0.	-698.	-679.

ISE PEO AES COGENERATION TECHNOLOGY ALTERNATIVES STUDY

FUEL UNITS =
EMISSION UNITS=
COST =$*10**9

REPORT 6.1 FUEL AND EMISSIONS SAVINGS (SAVINGS ARE POSITIVE)
TIME 1990 LEVEL ALL
TYPE MATCH=POWR

PROCS	ECS	ECS FUEL	*****FUEL SAVINGS**** DIRECT OIL+GAS	DIRECT COAL	TOTAL OIL+GAS	TOTAL COAL	FESR	----EMISSIONS SAVINGS---- DIRECT NOX	DIRECT SOX	DIRECT PART	TOTAL NOX	TOTAL SOX	TOTAL PART	EMSR	CAPITL SAVING	ELECTRIC POWER TOTAL EXPORT MWH	COST	LAEC SAVED
26	GTR316	DISTIL	0.	-0.079	0.	0.059	0.11	-7.	35.	5.	38.	110.	13.	0.52	1462.	0.	361.	-222.
28	GTR316	DISTIL	0.	-0.058	0.	0.039	0.07	14.	102.	11.	45.	155.	17.	0.47	1713.	0.	415.	-632.
29	GTR316	DISTIL	0.	-0.033	0.	0.023	0.06	2.	40.	5.	20.	70.	8.	0.48	653.	0.	167.	-271.
33	GTR316	DISTIL	0.	-0.056	0.	0.018	0.01	-23.	-12.	-1.	1.	29.	4.	0.41	691.	0.	70.	-31.
ALL	GTR316	DISTIL	0.	-0.735	0.	0.283	0.05	-121.	192.	30.	207.	751.	94.	0.47	8374.	0.	107.	-3387.
20	FCPADS	DISTIL	0.	-0.048	0.	0.039	0.09	2.	48.	6.	31.	97.	13.	0.60	1104.	0.	-158.	-449.
22	FCPADS	DISTIL	0.	-0.007	0.	0.003	0.06	2.	10.	1.	5.	15.	2.	0.58	198.	0.	29.	-56.
24	FCPADS	DISTIL	0.	-0.214	0.	0.043	0.14	-49.	-57.	-3.	34.	84.	12.	0.58	1481.	0.	-539.	-596.
26	FCPADS	DISTIL	0.	-0.093	0.	0.045	0.08	2.	43.	5.	46.	118.	13.	0.61	1115.	0.	88.	-465.
28	FCPADS	DISTIL	0.	-0.104	0.	0.050	0.09	28.	139.	14.	78.	223.	23.	0.70	1868.	0.	257.	-921.
29	FCPADS	DISTIL	0.	-0.037	0.	0.018	0.04	12.	52.	5.	29.	82.	9.	0.59	461.	0.	47.	-373.
33	FCPADS	DISTIL	0.	-0.090	0.	0.043	0.03	-16.	9.	1.	27.	82.	9.	0.60	647.	0.	-105.	-221.
ALL	FCPADS	DISTIL	0.	-0.792	0.	0.323	0.06	-25.	325.	38.	334.	936.	107.	0.69	9175.	0.	-509.	-4115.
20	FCMCDS	DISTIL	0.	-0.053	0.	0.041	0.10	-35.	50.	5.	-4.	102.	13.	0.46	927.	0.	-231.	-518.
22	FCMCDS	DISTIL	0.	-0.006	0.	0.004	0.08	-2.	10.	1.	1.	15.	1.	0.47	192.	0.	33.	-51.
24	FCMCDS	DISTIL	0.	-0.197	0.	0.060	0.20	-50.	-52.	-3.	32.	88.	12.	0.54	1324.	0.	-481.	-514.
26	FCMCDS	DISTIL	0.	-0.078	0.	0.060	0.11	-16.	45.	5.	28.	121.	13.	0.52	1054.	0.	145.	-394.
28	FCMCDS	DISTIL	0.	-0.088	0.	0.068	0.12	-34.	142.	13.	16.	228.	22.	0.47	1822.	0.	327.	-850.
29	FCMCDS	DISTIL	0.	-0.031	0.	0.024	0.06	-11.	53.	5.	7.	83.	8.	0.47	438.	0.	70.	-345.
33	FCMCDS	DISTIL	0.	-0.059	0.	0.041	0.03	-46.	8.	-0.	-14.	62.	6.	0.48	442.	0.	-48.	-128.
ALL	FCMCDS	DISTIL	0.	-0.687	0.	0.400	0.08	-261.	341.	33.	89.	938.	100.	0.48	8315.	0.	-248.	-3754.