

Figure 1: Swiss CO₂ emissions in Mt CO₂
170x104mm (300 x 300 DPI)

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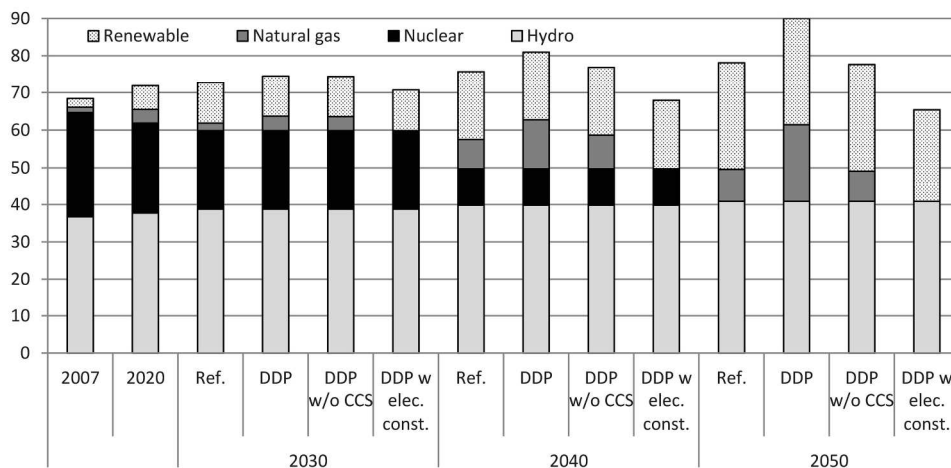


Figure 2: Swiss electricity generation in TWh
209x148mm (300 x 300 DPI)

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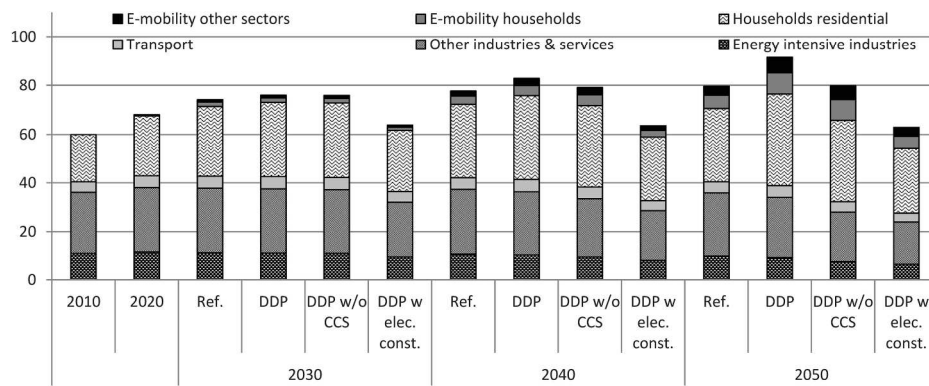


Figure 3: Swiss electricity consumption in TWh
209x148mm (300 x 300 DPI)

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Table 1: Industrial classifications

Sectors/goods
1 Coal
2 Crude oil
3 Natural gas
4 Petroleum products
5 Electricity
6 Agriculture
7 Energy intensive industries
8 Other goods and services
9 Land transport
10 Sea transport
11 Air transport

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Table 2: Swiss population (in thousands)

	2010	2030	2040	2050	2060
Swiss population	7'864	9'225	9'568	9'820	9'999

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Table 3: Annual GDP growth rate

	2010-2020	2020-2030	2030-2040	2040-2050	2050-2060
CHE	1.3%	0.7%	0.8%	0.7%	0.6%
EUR	1.3%	1.8%	1.7%	1.4%	1.2%
USA	2.8%	2.2%	2.1%	2.0%	1.8%
BIC	7.6%	4.5%	4.3%	3.7%	3.3%
ROW	5.4%	4.5%	4.4%	4.4%	4.3%
World	4.0%	3.4%	3.4%	3.4%	3.3%

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Table 4: Fossil fuel import prices (USD₂₀₁₂ per unit) - Source: WEO 2013 (International Energy Agency, 2013) (*Current policies scenario*)

	2012	2020	2030	2040	2050
IEA crude oil imports (per barrel)	109.0	120.0	136.0	150.9	161.8
Natural gas EU imports (per MBtu)	11.7	12.4	13.4	14.6	15.1

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Table 5: 2050 potential of new renewables in GWh - Source: Swiss Federal Office of Energy, (2012)

Solar P.V.	14000
Wind	4012
Geothermal	4378
Biomass and Biogas	4000
Other	2163
New Hydro	3160
Sum	26714

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Table 6: Electricity generation cost in Swiss cents per kWh - Source: Prognos (2012)

	2010	2020	2030	2040	2050
Hydro	8.9	10.8	11.5	10.9	11.1
Solar P.V.	31.7	16.4	13.0	11.1	9.9
Wind	24.1	20.1	15.7	13.9	12.0
Geothermal	12.3	10.5	9.8	9.2	8.6

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Table 7: Forecasted CO₂ savings resulting from the buildings refurbishment program

	Subsidies (MCHF)	Total expected CO ₂ savings (Mt of CO ₂)	Efficiency ratio (t CO ₂ /CHF)	Cumulative effective CO ₂ savings (Mt of CO ₂)
2015	200	2.57	0.0128	0.83
2020	200	2.38	0.0119	3.30
2025	200	2.19	0.0110	7.35
2030	200	2.00	0.0100	12.85
2035	200	1.81	0.0091	19.68
2040	200	1.63	0.0081	27.72
2045	200	1.44	0.0072	36.82
2050	200	1.25	0.0063	46.71

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Table 8: CO₂ prices and other levies in CHF₂₀₁₃ - reference scenario

	2020	2030	2040	2050
CO ₂ tax	60	60	60	60
CO ₂ ETS price	40	40	40	40
Levy on fuel transport	0.02	0.02	0.02	0.02

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Table 9: CO₂ prices and other levies in CHF₂₀₁₃ and welfare cost - DDP scenario

	2020	2030	2040	2050
CO ₂ tax	60			
CO ₂ ETS price	40			
Levy on fuel transport	0.02			
Uniform CO ₂ tax		257	654	1556
Welfare cost in % of household consumption	0.00%	0.39%	0.89%	1.66%

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Table 10: CO₂ prices and other levies in CHF₂₀₁₃ and welfare cost - DDP scenario without CCS

	2020	2030	2040	2050
CO ₂ tax	60			
CO ₂ ETS price	40			
Levy on fuel transport	0.02			
Uniform CO ₂ tax		324	1040	2652
Welfare cost in % of household consumption	0.00%	0.41%	1.01%	1.93%

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Table 11: CO₂ prices and other levies in CHF₂₀₁₃ and welfare cost - DDP scenario with a constraint on electricity consumption

	2020	2030	2040	2050
CO ₂ tax	60			
CO ₂ ETS price	40			
Levy on fuel transport	0.02			
Uniform CO ₂ tax		299	787	1963
Electricity tax		18%	41%	88%
Welfare cost in % of household consumption	0.00%	0.44%	0.64%	1.45%

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