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SB 2092
RELATING TO INCOME TAX LAW

Senate Committee on Economic Development

Public Hearing - February 2, 1998
1:00P.M., Room 212 State Capitol

By
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SB 2092 would extend the duration of energy conservation income tax credits for an additional 5 years.

Our statement on this measure is compiled from voluntarily submitted opinions of the listed academic reviewers, and as such, does not constitute an institutional position of the University of Hawaii.

We strongly support this measure.

Neoclassical economists frequently argue for letting the "free" market, comprised of the integrated buying and selling decisions of "perfectly rational agents", operate unfettered by such interferences. Tax credits, they opine, are impediments to "market equilibrium". In response, I would make the following observations:

1. The "free" market is not free, but rather is locally and globally manipulated, particularly in the area of the petrochemical industry, by corporate and government policies.

2. Economic decisions are <u>not</u> made by "perfectly rational agents", but rather by imperfect humans acting under the influence of powerful social modifiers, including in particular the commercial advertising industry.

3. "Market equilibrium" is an artificial, theoretical construct necessary as an input assumption for mathematical models, and it does not exist in the real world.

Therefore, energy tax credits, like itemized income tax deductions, corporate subsidies, and international trade agreements, are instruments of public policy that may be judiciously implemented as tools to promote societal stability. As with all public policy decisions, they must be considered in the light of probable future conditions.

With respect to energy, the future is eminently predictable. I have attached two figures taken from a recent article in the journal, Issues in Science and Technology. The

first depicts 40 years of estimates by oil companies, governments, and private corporations of the total amount of crude oil that can be pumped from the Earth. These studies suggest a range of ultimately recoverable global oil reserves of 1,800 to 2,200 billion barrels.

The second figure shows predicted production curves for different values of estimated ultimately recoverable (EUR) oil, using assumed world-wide demand growth of 2% as suggested by the U.S. Energy Information Administration (EIA). It is evident that peak production will occur sometime between 2007 and 2013. As global production approaches a peak, the law of supply and demand will inevitably engender marked and permanent price increases.

Being 90% dependent upon imported fossil fuel for our energy, Hawaii's economy is critically sensitive to increases in the cost of petroleum. Recognition of this vulnerability has led the Department of Business and Economic Development and Tourism to explore alternative, renewable energy sources. The general public similarly is concerned: weaning Hawaii from fossil fuel dependence was one of the top ten recommendations emerging from last fall's Honolulu Advertiser Hawaii Tomorrow Conference.

James MacKenzie, senior researcher with the World Resources Institute in Washington D.C., and author of the article from which the attached figures were drawn, notes three ways to speed the movement away from dependence on oil:

1. Increase fuel prices by raising oil taxes.
2. Regulate the relevant technologies (for example, through government-set mileage standards or the mandated production of electric vehicles.)
3. Provide subsidies for the use of alternative energy (such as tax deductions or tax credits.)

We do not face a question of whether or not we will shift from fossil to renewable energy, but rather the issue is when, and how painlessly can the transition be made. Early planning efforts, such as the tax credits extended by this measure, represent our best hope for mitigating inflation, recession, and supply shortages.