

## US energy policies for a sustainable future

### Interview with Dr. Howard Geller



**Refocus U.S. Correspondent Don C. Smith met recently with Dr Howard Geller, author of a new book *Energy Revolution: Policies for a Sustainable Future*<sup>1</sup> and discussed the current state of play in American energy policy and how it may play a role in the 2004 presidential election.**

Despite the national benefits that he argues would accrue from an energy policy focusing on energy efficiency and renewable sources of energy, Howard Geller says that the barriers to further establishing these twin-objectives are formidable. Among the key barriers are: (1) insufficient training and information; (2) misplaced incentives; (3) pricing and taxation barriers; and (4) political obstacles.

### Training and incentives

Poor quality in building and construction, related to insufficient training, result in many inefficiencies including air conditioning units that are often simply too big for the space to be cooled as well as air ducts that have not been properly sealed thus resulting in a loss of hot or cool air. Moreover,

Dr. Geller, who is executive director of the Southwest Energy Efficiency Project (see sidebar story), suggests that when construction is being considered the builder is often chosen by lowest bid. This in turn is often based on a bid in which “corners related to energy efficiency” have been cut. “Energy is not a priority area in building,” he contends. On the other hand, misplaced incentives are “clearly a systematic barrier in this country,” he says. He cites the example of someone or a firm that occupies space but does not have to pay the energy bill associated with it. “Someone who doesn’t pay the energy costs doesn’t tend to watch things such as energy usage as closely,” Dr. Geller says.

### Taxation

The matter of pricing and taxation barriers is a particularly difficult issue, he says, because “Americans think they have a God-given right to cheap energy.” Consequently, the adoption of an energy tax that would encourage more fuel-efficient purchases is “a non-starter politically. Imagine a politician advocating a 25 cent, 50 cent or \$1 a gallon tax. They would effectively be risking re-election.” In addition, Dr. Geller contends that the true price of energy is not reflected in users’ bills. This is particularly the case, he says, with regard to environmental and health impacts and the costs associated with maintaining the U.S. military presence in areas where petroleum is produced. He estimates that the cost of oil would be increased “easily” by \$20 to \$30 per barrel if these costs

were accounted for. “Economists would say that you should price goods to reflect their true costs, but that’s not what is happening,” he says.

### Federal politics

Finally, Dr. Geller describes a “fundamental breakdown” in the American political system when it comes to the influence that money has on policy development. “Our conventional energy industries [i.e., coal, electric utilities, oil] as well as those associated with them [i.e., automotive, building] are very large, motivated, and powerful politically,” he maintains adding, “They are more organized and influential than the public at large.” As a result, environmental protection regulations are often opposed and incentives for energy efficiency resisted while, in the meantime, tax subsidies for these industries are supported. In *Energy Revolution*, Dr. Geller says that in the 2000 election cycle (1999-2000), \$65 million was contributed by energy and natural resources to presidential and congressional campaigns. Three of every four dollars in contributions went to Republicans with the final dollar going to Democrats. “Do you know who the single largest contributor was?” he asks. “It was Enron who gave nearly \$2.5 million.” The problem with these contributions is “a large part of why we aren’t getting from Washington the policies to advocate energy efficiency and renewables,” he says.

### State politics

Notwithstanding these barriers, Dr. Geller is “fairly optimistic” about what is going on in the country at large. “At the local and state levels, the discussion is about energy efficiency and renewable energy,” he says noting, “It’s not about fossil fuels or nuclear power.” He

#### Dr Howard Geller

Dr. Howard Geller has followed U.S. energy policy development for more than two decades, having served until 2001 as executive director of the American Council for an Energy-Efficient Economy. Additionally, in 1998 he was awarded the 1998 Leo Szilard Award for Physics



in the Public Interest by the American Physical Society in recognition of his contributions to national appliance efficiency standards and more efficient energy use in general.

1. Geller, Howard, *Energy Revolution: Policies for a Sustainable Future*, Island Press, 2003.



### The Southwest Energy Efficiency Project

A new public interest organization located in Boulder, Colorado, the Southwest Energy Efficiency Project (SWEET) promotes policies and programmes to advance energy efficiency in Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming. SWEET, founded by Howard Geller in 2001, began as a joint project of the American Council for an Energy-Efficient Economy (ACEEE) and the Land and Water Fund of the Rockies.

One of SWEET's major undertakings was publication of *The New Mother Lode: The Potential for More Efficient Electricity Use in the Southwest*, which examined the potential for and benefits from increasing the efficiency of electricity use in the American southwest. The study was of particular interest because this region is among the fastest growing in the country both in terms of population and energy demand. In this regard, most of the regional electricity produced and consumed is generated by coal-fired power plants. Most proposed new plants will be gas-fired, but some coal-fired plants have also been proposed. Notwithstanding the growth in demand, new power plants are often controversial due in large measure to environmental impacts and water consumption in an area currently experiencing a severe drought.

The study modeled two scenarios: "business and usual" and "high efficiency" that gradually increases the efficiency of electricity use in homes and workplaces from 2003-2020. According to the report among the key benefits of pursuing the high efficiency scenario are:

- Reducing average electricity demand growth from 2.6 percent per year in the base scenario to 0.7 percent per year in the high efficiency scenario;
- Reducing total electricity consumption 18 percent by 2010 and 33 percent by 2020;
- Eliminating the need to construct 34 500-megawatt power plants or their equivalent by 2020;
- Saving consumers and businesses \$28 billion net between 2003 and 2020; and
- Increasing regional employment by 58,400 jobs and regional personal income by \$1.34 billion per year by 2020.

The high efficiency scenario, estimated to cost \$9 billion in investments between 2003 and 2020, was based on the accelerated adoption of cost-effective energy efficiency measures including more efficient appliances and air conditioning systems, more efficient lamps and other lighting devices, more efficient design and construction of new homes and commercial buildings, efficiency improvements in motor systems, and greater efficiency in other devices used by industry.

The full report can be found at: [http://www.swenergy.org/nml/New\\_Mother\\_Lode.pdf](http://www.swenergy.org/nml/New_Mother_Lode.pdf)

points out that 2002 funding for energy efficiency at state and local levels was \$1.45 billion, up from \$1.1 billion in 2000. Another reason for optimism relates to increased interest at state level in adoption of renewable portfolio standards (RPS), which require a utility to generate a certain amount of its total energy portfolio from renewable sources. Support for energy efficiency and renewables programs at the state

level is in many instances bi-partisan with both Democrats and Republicans seeing the value of the programs. He mentions California Governor Gray Davis, a Democrat, who has signed into law a number of stringent energy efficiency measures as well as legislation mandating an RPS of 20 percent by 2017. When he signed California's RPS legislation, Governor Davis called attention to California's "rich tradition of environmental stewardship, protecting the energy we use, [and] looking toward new energy resources." On the other hand, Dr Geller points to New York Governor George Pataki, a Republican, who said in his January state-of-the-state message, "We can...make New York a national leader in renewable energy usage. I am directing the Public Service Commission to implement a Renewable Energy Portfolio Standard—a program which will guarantee that within the next 10 years at least 25 percent of the electricity bought in New York will come from renewable energy resources like solar power, wind power, or fuel cells."

### Energy efficiency

Despite his optimism about policy developments at the state level, however, Dr. Geller says more action is needed at the federal level if the country is to fully benefit from renewable energy and energy efficiency. "The support for renewables and energy efficiency in the Bush-Cheney plan is virtually nil," he says. "There's nearly nothing." Nevertheless, federal leadership is important, he says, quickly adding, "We also really need to get corporate money out of politics." The recently enacted campaign finance reform legislation, sponsored by U.S. Senators John McCain, Arizona Republican, and Russ Feingold, Wisconsin Democrat, "probably will not get the job done" Dr. Geller says. (Editor's note: several key aspects of the legislation were struck down recently by the U.S. Federal Court of Appeals in Washington, D.C.) Moreover, he notes the widening gap between federal and state support for energy efficiency. "At the same time that states are expanding their energy efficiency programs, neither the Bush Administration nor Congress are proposing any effective action to improve energy efficiency," he said in a public statement in May. "Federal policymakers are ignoring America's

cleanest, cheapest, and most reliable energy resource—improving the efficiency of our homes, appliances, workplaces, and vehicles," he said.

The current federal ambivalence, or even opposition, in relation to renewables and energy efficiency may also manifest itself in potential vulnerability in terms of the American economy. On one hand, the current policies are likely to subject the economy to future energy "price shocks" and the resulting economic upheaval from time-to-time he says. On the other hand, U.S. clean energy industries are falling behind competitors in Denmark, Germany, and Japan, Dr. Geller says. Moreover, clean energy could play a major role in revitalizing rural America. He says that the development of bio-fuels, in particular, could provide a huge economic lift for these areas.

### Looking ahead

Looking ahead, Dr. Geller notes that a debate on the nation's energy and environmental policies are likely to be on the political agenda. "The environment and energy are issues that the Democrats will try to use to distinguish themselves," he says. Of the announced candidates, the ones Dr. Geller believes are most inclined to make the environment and energy topics of discussion are former Vermont Governor Howard Dean, U.S. Senator John Kerry of Massachusetts, and U.S. Senator Joe Lieberman of Connecticut. The records of two other candidates, U.S. Senator John Edwards of North Carolina and U.S. Congressman Richard Gephardt of Missouri, indicate less leadership on environmental issues, Dr. Geller says.

In closing, Dr. Geller comments that the continuation of current policies, especially at the federal level, amounts to nothing more than "putting our head in the sand," pausing for a moment before explaining "putting our heads in the sand and looking for oil."

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