



The Present Energy Crisis: Is It Déjà-Vu, All Over Again?

Many of the members of our Society lived and worked through the energy crises of the 1970s. The two worst crises occurred in 1973 and 1979. The 1973 crisis resulted from the Arab Oil Embargo and the 1979 crisis was caused by the Iranian revolution. There were other issues—such as a reduction in oil production in the U.S. and other parts of the world, not so friendly sources of oil in the Middle East, and increasing oil prices—that contributed to this energy crisis period in history. Of more interest is the response of the United States to a situation in which the U.S. was almost powerless to independently effect a solution to the problems of decreasing oil production and increasing oil prices. However, this fairly long-term energy crisis did result in the establishment of the Department of Energy in 1977 and passage of the National Energy Act in 1978 by the United States Congress. The intention of this act was to empower the United States with greater control of its national energy destiny; or, in simpler terms, substantially reduce the U.S. dependence on foreign oil through a number of activities, one of which was the development of renewable energy sources. In response to this act, federal funds for renewable energy research and development more than tripled between 1976 and 1980, only to fall back below the 1976 level by 1984. Between 1984 and 2006, the level of funding for this activity remained essentially unchanged primarily because of the oil glut of the 1980s which resulted in steadily falling oil prices.

Since the energy crisis of the 1970s, we have witnessed the U.S. demand for oil increasing at an alarming rate, the price of oil steadily escalating, and an increasingly unstable world economy, prompted to some degree by the world's demand for oil, a product which will, at some point in time, cease to be available at any price. Thus, it is no wonder that the U.S. government is, once again, focusing resources on the development of renewable energy sources. In the inimitable logic of Yogi Berra, "It's like déjà-vu, all over again."

Renewable energy sources is a term that encompasses a range of technologies including conventional ones such as wind power, hydropower, solar energy, biomass, biofuel, and geothermal energy, along with new and emerging ones such as cellulosic ethanol, ocean energy, enhanced geothermal systems, and nanotechnology thin-film solar panels.

The Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) manages America's investment in research, development, and deployment (RD&D) in clean energy technologies. The mission of EERE is to strengthen America's energy security, environmental quality, and economic vitality through R&D and public-private partnerships that diversify this nation's sources of energy, increase efficiency and productivity of the existing energy infrastructure, bring clean, reliable, and affordable energy technologies to the marketplace, and make a difference in the everyday lives of Americans by productively enhancing their energy choices and quality of life. This sounds eerily similar to the goal of the legislation discussed in the 1970s. In response to this latest energy crisis, federal funding for the EERE has steadily increased over the past few years. The request to Congress for FY2011 was \$2.36 B.

It should be obvious to all members of ECS that the Society has an important role to play in this vitally important technology. Two symposia, "Electrochemical Energy Summit – An International Summit in Support of Societal Energy Needs" and "Grand Challenges in Energy Conversion and Storage," both scheduled for the ECS meeting in Boston (fall 2011), should provide ECS an opportunity to establish itself as *the* professional society for renewable energy technologies that involve electrochemistry and solid-state science. Because ECS is an organization of scientists and engineers with high technical and scientific standards and long standing expertise in all fields of electrochemical energy, the ultimate goal of ECS should be to take ownership of the areas of renewable energy research and development that fall within the purview of the Society. The Boston symposia should provide the springboard for ownership to become a reality.

A handwritten signature in black ink, appearing to read "Bill Brown".

Bill Brown
President