Appendix D

Public Benefits Funding

Implementation Status as of November 1998

Status

As of December 1998, Arizona, California, Connecticut, Illinois, Massachusetts, Montana, New Mexico, New York, Rhode Island and some Pennsylvania utilities have set specific funding levels for either renewables or for a range of purposes that include renewables (see table D-1). California and Rhode Island have begun disbursing funds to renewables developers. On the federal level, bills by Representative Edward Markey (D-Massachusetts), Senator James Jeffords (D-Vermont), and the Clinton Administration have included public benefits funding for renewables.

Implementation Issues

There are many methods of raising and spending public benefit funds. The funding variations reviewed here are those that had been proposed and adopted in various jurisdictions as of September 1998.

Level of the Fund. Thus far, in most states postrestructuring funding levels for public benefits programs have approximated the level of funding provided by regulated utilities prior to restructuring. Some states, such as Massachusetts and Rhode Island, have reduced funding for energy efficiency somewhat, but increased funding for renewables, on the assumption that the market would stimulate more efficiency investment, especially for commercial and industrial customers.[1] Illinois instituted modest funding for efficiency and for renewables in restructuring legislation, despite no previous utility spending in these areas.

Most states have implemented uniform, statewide public benefits funding in legislation and regulation. In New York, however, where the Public Service Commission approved individual utility restructuring settlements, public benefits funding levels have also been set company by company to approximate pre-restructuring levels.

Connecticut's restructuring legislation significantly increased public benefits funding from earlier levels. Energy efficiency funding was restored to peak historical levels of 0.3 cents per kWh (3 mills/kWh), reversing cuts that had been made over several years prior to restructuring. In addition, Connecticut adopted funding for renewable energy of 0.5 mills/kWh for the first two years of restructuring, followed by two years at 0.75 mills/kWh and 1 mill/kWh thereafter. The Union of Concerned Scientists had proposed a minimum level of funding of 1 mill/kWh in New England, based on analysis of a regional contribution to a national scenario for sustained orderly development of renewables.[2]

Arizona has established a system benefit charge to fund a solar hot water heater rebate program, with $200,000 in 1999, increasing by $200,000 annually to $1 million in 2003. The state's SBC also includes energy efficiency, nuclear fuel disposal, and public benefit R&D, in addition to the low income, environment, renewables, and nuclear power plant decommissioning.

New Mexico has established a charge equal to 0.5 percent of each customer's bill, approximately the same percentage of revenues as in Massachusetts and Connecticut. Funding would go half to solar and half to a bidding process for other renewables.

Duration of the Fund. States have varied greatly in the duration established for public benefits funding. California and Rhode Islands, the first two states to restructure, approved public benefits funding for four years. New York set funding levels for only three years. Massachusetts and Connecticut established efficiency funding levels for five years, but indefinite funding for renewables. Illinois approved a ten-year funding plan.

Structure of the Charge. Most of the public benefits funds adopted and proposed at the state level charge distribution company customers a fee for each kilowatt-hour of electricity consumed. Illinois structured its public benefit funding on a flat charge per class of customer. Residential electricity customers pay 2.5 cents per month; nonresidential customers using less than 10 MW pay 25 cents per month, and customers using over 10 MW pay $17.75. Because the Illinois charge is so small, the state's flat charge per residential customer approximates what a charge based on usage would cost. However, large commercial and industrial customers pay significantly less than they would if charged per kWh.

Administering Entity. States have generally chosen either state energy offices or economic development agencies to administer renewables funds. California and New York have designated state energy agencies—the California Energy Commission and the New York State Energy Research and Development Agency—to administer their renewables funding, because both of these agencies had significant renewable energy development programs prior to restructuring. The Connecticut, Illinois, and Massachusetts restructuring bills designated quasipublic economic development agencies to implement their funds, reflecting a desire to stimulate new renewables business development. Boards with stakeholder representation will provide input and oversight to fund managers. In Rhode Island, a collaborative stakeholder process, with oversight by the Public Utilities Commission, guides both renewables and energy-efficiency spending. In most other states, distribution companies—with oversight by the utility commission—retain responsibility for administering energy-efficiency spending.

Funding Strategies and Mechanisms. A number of different funding strategies have been proposed and implemented to date. California's strategy is the most developed, with different mechanisms created to support different states of renewables development. California's restructuring law (AB 1890) established $540 million in funding for existing, new, and emerging renewables in the state over a four-year period. Following the recommendations of the California Energy Commission, with stakeholder input, SB 90 adopted specific allocation and distribution mechanisms. Existing technologies are eligible for $243 million, with monthly generation payments. Based on their competitiveness, technologies are classified in three tiers, with different maximum support payments for each tier. New renewables projects are eligible for $162 million awarded by an auction for price supports. Awards have been made to a total of 600 MW of new wind, geothermal, biomass, landfill gas and small hydro, at an average level of 1.2 cents per kWh.

For emerging technologies (photovoltaics, small wind turbines, solar thermal and fuel cells), $54 million is being used to reduce the price of new installations. Decreasing incentives are provided each year over five years, in the maximum incentive per watt of system output and the maximum incentive as a percentage of the total system cost.

A customer credit account of $75.6 million pays an incentive of 1.5 cents per kWh to customers choosing to buy power from in-state renewables. Finally, $5.4 million was allocated to a consumer education account, for which expenditures are still in the planning stage.[3]

In Rhode Island, a $20 million annual energy efficiency and renewables fund is expected to spend about $2 million on renewables in 1998. A renewable energy collaborative first sponsored studies of the market potential of specific technologies in Rhode Island and Massachusetts. Rhode Island made initial project awards in June 1998. One helped a solar company to buy down the cost of installing photovoltaics at 500 homes, schools, and nonprofit organizations. The other enables a wind energy developer to investigate coastal wind sites. Money for permitting and project development has also been allocated, pending completion of the feasibility study.

The New York State Energy Research and Development Authority has published a notice announcing it will co-fund one or two wind developments of at least 4 MW for up to $6 million.[4]

The Massachusetts Renewable Energy Trust Fund was established to support renewable energy for electricity customers and the development of Massachusetts renewable energy businesses. The fund will collect approximately $200 million over five years, and $20–25 million each year thereafter. For the first five years, about $10 million each year is dedicated to

retiring waste-to-energy plants or installing pollution controls on them.

The restructuring law authorized a broad range of funding mechanisms to support renewables product and market development, pilot and demonstration activities, production incentives, training and public information, research and development, and investment to support renewables projects, enterprises and institutions. The Massachusetts law seeks to leverage private investment to create a larger pool of capital and to familiarize private investors with renewable energy.

A lawsuit challenging the constitutionality of the Massachusetts fund has been filed alleging that it is an unconstitutional discriminatory tax, since funding is provided by investor-owned utility customers but not by municipally-owned utilities, which are not subject to the electricity restructuring law. Until the lawsuit has been resolved, the fund is unlikely to support projects. Nevertheless, the Massachusetts Technology Collaborative, a quasipublic agency designated by the legislature to manage the fund, has assumed that the lawsuit will be resolved and has hired consultants, Bain & Co. and Arthur D. Little, to develop a business plan.[5]

At the national level, Richard Cowart, chair of the Vermont Public Service Board, proposed a National System Benefits Trust that would provide matching funds to states to support energy efficiency, low-income energy assistance, and research and development on renewables.[6] This approach is parallel to the Universal Service Support in the telecommunications industry and the Airport and Airway Trust Fund, which provides for public safety in air transit. Federal bills introduced by Representative Peter DeFazio, Representative Kucinich, Senator James Jeffords, and the Clinton Administration include such a provision.

REFERENCES

[1] Massachusetts previously allowed utility funding of renewables, but did not require it. The Department of Public Utilities had approved Massachusetts Electric recovery of incremental costs from a "Green RFP."

[2] Alan Nogee, "Renewable Energy Sustained Orderly Development: Determining a N.E. Regional Goal." Presentation to US Department of Energy Office of Utility Technologies Analysis Workshop, Washington, D.C., July 23, 1996.

[3] California Energy Commission, Renewable Technology Program, on line at www.energy.ca.gov/renewables.

[4] State Renewable Energy News, NARUC Subcommittee on Renewable Energy, Fall 1998. Notice is available on-line at: www.nyserda.org/437pon.html.

[5] "Bain & Company Named Strategic Consultants for the Massachusetts Renewable Energy Initiative," Massachusetts Technology Collaborative press release, May 27,1998, on line at www.mtpc.org/mtc/renew/management.htm.

[6] Hon. Richard H. Cowart, "Restructuring and the Public Good: Creating a National System Benefits Trust," *Electricity Journal*, April 1997, pp. 52–57.