

The Role of the System Benefit Charges in Supporting Public Benefit Programs in Electric Utility Restructuring

More than half the nation's population is now living in states where electric markets are in the process of being opened to varying degrees of market competition. Legislatures in 19 states have passed comprehensive restructuring legislation. In addition, state utility commissions have issued comprehensive restructuring orders in five states to open their markets to competition.

Many of these states have used their electric restructuring plans to make improvements and or continue existing utility-funded public benefit programs. These programs include fuel assistance and weatherization for low-income households, and energy efficiency and renewable energy programs to offset the environmental effects of electricity production.

The restructuring programs now being introduced are setting in motion complicated, multifaceted reorderings of regulatory policy. System benefit charges (SBC) are one way to accomplish the two goals of making energy affordable for low-income consumers and promoting energy efficiency. Those negotiating over system benefit charges in a state proceeding must consider the overall context of any restructuring proposal. For that reason we do not argue that the system benefits charge is a panacea. Still, properly done, they can be an essential component of the emerging systems regulating the new world of competition and choice in electricity.

This Issue Brief presents a rationale for those charges. It also describes the various ways these charges have been used in states that have adopted some form of electric market restructuring. It addresses the following questions:

- How do systems benefit charges work?
- What states have implemented systems benefits charges to date and at what level?
- How do the systems charges enacted to date compare with existing programs?
- How does the Administration's proposed system benefit charge program complement emerging state programs?

The Energy Programs Consortium (EPC) is a joint venture of the National Energy Assistance Directors Association (NEADA); the National Association of State Energy Officials (NASEO); and the National Association for State Community Services Programs

(NASCSP). The purpose of the EPC is to foster coordination and cooperation among state and federal agencies in the energy area. EPC provides technical assistance to state and local officials, community groups, and others who are interested in seeking out new opportunities for all Americans to benefit from changes in the utility industry.

Background

Electric utility restructuring can certainly benefit consumers. It can lower prices, expand consumer choice and open new business opportunities. Restructuring, though, can also have some negative consequences, notably what we call "stranded assets" and "stranded public benefits."

What are they?

"Stranded assets" refers to utility assets, such as generation units and power purchase contracts which are uneconomic in a fully competitive generation market. That is, the costs of production have risen higher than market clearing prices, thus, the value of a power plant is less than the cost of its construction -- the plant is a little like a sailor marooned on a desert island, left high and dry by a falling tide. Hence, the imaginative use of the term "stranded."

"Stranded public benefits" on the other hand, refers to various public benefit programs that society has historically chosen to have provided by the regulated utility. These programs include low-income energy assistance, such as the weatherization of homes, various energy efficiency/demand-side management (DSM) programs, renewable energy procurement and research and development focused on efficiency and diversity of resources.

Funding has diminished for these public benefits programs on a nationwide basis during the past few years. Direct federal funding for low-income weatherization was slashed from \$226 million to \$113 million between FY 1995 and FY 1996. Similarly, direct federal funding for state energy programs and efficiency programs for schools and hospitals was slashed from \$53 million to \$28 million during the same time period. Federal funding for LIHEAP dropped from \$2.1 billion in FY 1985 to \$1.0 billion in FY 1998. Finally, oil overcharge refunds -- \$2.25 billion went to weatherization and LIHEAP supplements to states since FY 1981 -- have been virtually spent. In short, funding of public benefits programs through a systems benefits charge is critical when all these cuts are taken as a whole.

Direct spending by investor-owned utilities on public benefit programs has also declined. Utility spending on energy efficiency programs declined from \$1.6 billion in 1993 to \$1.1 billion in 1996 and for research and development declined from \$708 million in 1993 to \$470 million in 1996. At the same time, funding for low-income assistance and weatherization programs has remained fairly constant at about \$335 million annually.

Stranded public benefits also resemble the marooned sailor. In this case the tide is regulatory reform. In general, the states implementing restructuring programs can use a similar financial mechanism when it comes either to recovering stranded assets or preserving stranded benefits: a so-called "wires charge" placed on the state-regulated distribution system. Since stranded assets and stranded benefits are being addressed in a common forum -- usually the

state legislature or the state PUC -- advocates searching for consensus often link the two.

For that reason, it is important that negotiators clearly understand two questions:

1. How do systems benefits charges work?
2. Why are they good policy?

Systems Benefit Charges -- How Do They Work?

System benefit charges are generally expressed in terms of mills per kilowatt hour generated. One mill is equal to 1/10 (\$0.001) cent. In other words, for every one million kilowatt hours generated, a one mill charge would raise \$1,000 (1,000,000 kilowatt hours times \$0.001). For example, if the one mill charge shown in Table 1 applied nationally, across all consumer end-uses of electricity -- residential, commercial and industrial -- it would raise about \$3 billion.

Usually, states levy systems benefit charges on the distribution of all electricity collected by the regulated distribution company and included in the bills distributed to all customers. There are no bypass transactions. The company collects fees and transfers them to the appropriate administering agency(s). Usually the general level of the charge and the categories of use for the collected funds is decided during the final deliberations associated with the adoption of a final restructuring plan. In many states, that level equals the amount needed to continue existing programs.

Why Are They Good?

Two reasons. First, they help low-income families. Generally, the purpose of low-income programs is to make energy affordable for poor households, especially the elderly, disabled, and working poor. They do so by providing utility discounts and weatherization. Weatherization services reduce the heating and cooling costs for low-income households by improving the energy efficiency of their homes and ensuring their health and safety. These programs play a key role in helping to reduce arrearages and helping to keep low-income households from having to choose between paying for energy and other essentials.

Second, they reduce the wasteful use of energy throughout society. Energy efficiency lowers bills through decreased consumption; it slows the growth of total generation, delaying the need for additional generation capacity; it reduces pollution and thus the cost of pollution controls. In addition, such programs generally include support for renewable energy -- hydroelectric power, solar energy, wind energy, biomass, and geothermal energy -- in that way reducing our dependence on irreplaceable fossil fuels.

Sometimes referred to as demand side management (DSM), the public policy objective of energy efficiency programs is to lower energy use and energy bills, as well as to offset the environmental consequences of producing electricity. In many states, barriers exist that hinder or prevent a self-sustaining market. Some, though, have found innovative approaches to removing those barriers. California, for example, subsidizes consumer purchases of renewable energy. Arizona, Maine, Massachusetts and Nevada have all established a

renewable portfolio standard (RPS) requiring that all sellers purchase a required proportion of electricity from designated sources of clean energy.

Table 1: Estimated Funds Raised Through a Generation Fee on All Electricity Per Mill Charged Per Kilowatt-hour

State	Millions of Kilowatt Hours	\$'s Raised Per Mill Charge (in Millions)*		
		One Mill	Two Mills	Three Mills
Alabama	70,394	\$70.4	\$140.8	\$211.2
Alaska	4,621	4.6	9.2	13.9
Arizona	48,295	48.3	96.6	144.9
Arkansas	33,974	34.0	67.9	101.9
California	213,693	213.7	427.4	641.1
Colorado	34,869	34.9	69.7	104.6
Connecticut	27,850	27.9	55.7	83.6
Delaware	9,518	9.5	19.0	28.6
District of Columbia	10,316	10.3	20.6	30.9
Florida	166,820	166.8	333.6	500.5
Georgia	95,227	95.2	190.5	285.7
Hawaii	9,160	9.2	18.3	27.5
Idaho	19,389	19.4	38.8	58.2
Illinois	126,387	126.4	252.8	379.2
Indiana	87,928	87.9	175.9	263.8
Iowa	37,970	38.0	75.9	113.9
Kansas	30,356	30.4	60.7	91.1
Kentucky	67,501	67.5	135.0	202.5
Louisiana	72,385	72.4	144.8	217.2
Maine	11,386	11.4	22.8	34.2
Maryland	56,539	56.5	113.1	169.6
Massachusetts	46,750	46.8	93.5	140.3
Michigan	94,863	94.9	189.7	284.6
Minnesota	53,980	54.0	108.0	161.9
Mississippi	37,925	37.9	75.9	113.8
Missouri	61,901	61.9	123.8	185.7
Montana	13,567	13.6	27.1	40.7
Nebraska	20,894	20.9	41.8	62.7

Nevada	20,582	20.6	41.2	61.7
New Hampshire	8,914	8.9	17.8	26.7
New Jersey	66,693	66.7	133.4	200.1
New Mexico	16,230	16.2	32.5	48.7
New York	129,995	130.0	260.0	390.0
North Carolina	105,191	105.2	210.4	315.6
North Dakota	7,908	7.9	15.8	23.7
Ohio	157,807	157.8	315.6	473.4
Oklahoma	41,288	41.3	82.6	123.9
Oregon	45,526	45.5	91.1	136.6
Pennsylvania	125,605	125.6	251.2	376.8
Rhode Island	6,547	6.5	13.1	19.6
South Carolina	64,291	64.3	128.6	192.9
South Dakota	7,425	7.4	14.9	22.3
Tennessee	85,315	85.3	170.6	255.9
Texas	262,272	262.3	524.5	786.8
Utah	18,358	18.4	36.7	55.1
Vermont	5,109	5.1	10.2	15.3
Virginia	84,953	85.0	169.9	254.9
Washington	89,322	89.3	178.6	268.0
West Virginia	25,985	26.0	52.0	78.0
Wisconsin	57,621	57.6	115.2	172.9
Wyoming	11,196	11.2	22.4	33.6
U.S. Total	3,008,591	\$3,008.6	\$6,017.2	\$9,025.8

* 1 mill is equal to 1/10 of 1 cent.

Source: Kilowatt hour data derived from data published in the Electric Power Annual Energy Information Administration, July 1996.

System Benefit Charges: Where Do They Stand?

Nineteen states -- Arkansas, California, Connecticut, Delaware, Illinois, Maine, Maryland, Massachusetts, Montana, Nevada, New Hampshire, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, and Texas -- have enacted comprehensive electric industry restructuring legislation. In addition five states, Arizona, Georgia, Louisiana, Michigan, and New York have put in place a comprehensive restructuring process through PUC regulation. Also, while Vermont has not yet passed restructuring legislation, the state has passed legislation giving the public service commission the authority to

establish a SBC to fund a statewide energy efficiency program through a new entity to replace the current patchwork of utility-sponsored programs.

Meanwhile, at least some level of restructuring activity is now underway in almost all other states. These states have established legislative study groups, introduced restructuring bills, or initiated other processes to address restructuring.

Many of the states that have enacted restructuring legislation or are in the final stages of considering such legislation share one thing in common: rates that are significantly higher than the national average -- in some cases two to three times higher. States that have not moved on restructuring, on the other hand, generally have rates that are lower than the national average, and are concerned that in a restructured environment, their utilities will raise prices by selling their power to higher cost states. The only relatively lower cost states to act thus far are Arkansas, Montana, Nevada, Oklahoma, Oregon, and Texas.

In the last Congress several bills, including one introduced by the Administration, were introduced that would support a national system benefit charge. Many of these proposals were reintroduced in this current session of the Congress. The Administration's proposal (H.R. 1828, S. 1047) includes a one mill systems benefit charge that would raise approximately \$3 billion to support low-income assistance, energy efficiency, consumer education, research and development, and renewable energy programs. The federal government would distribute funds to states on a dollar-for-dollar matching fund basis. A joint federal-state board to determine standards for fund eligibility would be established. The fund would sunset in 2015.

The Administration's rationale for supporting the systems benefit charge is similar to the rationale used by many states that have adopted similar programs. According to Administration documents:

"As utilities prepare for competition, such entities will be unwilling to include in their rates the cost of programs not included in the rates of their competition. Moreover, although transmission and distribution will remain unregulated, public benefits programs will suffer if States do not continue to require funding for these programs. ... A federal public benefits charge is also justified by the fact that many of the activities in question provide public benefits that transcend State boundaries. Finally, the proposed matching fund amount of \$3 billion will encourage States, at a minimum, to preserve the current level of support States provide for public purpose programs, estimated at about \$6 billion in 1996."

In addition to the Administration's proposal, similar programs to support a systems benefit charge have also been introduced in this Congress including S. 1369 by Senator Jeffords (R-VT) and H.R. 2569 by Rep. Frank Pallone, Jr. (D-NJ).

Programs Enacted to Date

The scope of the system benefit charge, the level of funding, and implementation mechanisms vary considerably from state-to-state. That diversity reflects various factors: the nature and funding of historic programs, as well as the interplay of legislators, Governors,

service companies, environmental interests, and those fighting for low-income assistance.

As states implement restructuring programs, they are often using system benefit charges to maintain or slightly enhance already existing activities funded by utility ratepayers. In a few states, however, restructuring has been used as an opportunity to develop new programs to support energy assistance and conservation programs. For example, new system benefit charge programs were established in Illinois, Maryland, New Hampshire, Oregon and Texas to make energy more affordable for low-income households. Significant increases in funds for efficiency and renewable programs were approved in California, Connecticut, and Massachusetts. Other programs had small increases or remained at prior funding levels. Generally, these programs have a life of three to five years, and while in a few cases could be extended under sunset provisions, more often will end without new legislation.

Table 2 provides a summary of systems benefit charges for efficiency, renewables, and low-income programs approved to date for the states that have approved restructuring legislation. Table 3 reports the program benefits in mills per kilowatt hour. In some cases, funding levels are estimated and subject to adjustment as the programs are implemented and final program details are refined. Note: the tables and summaries of public benefits that follow do not include summaries for the states of listings for Arkansas, Arizona, Nevada, Oklahoma, or Virginia because these states have not authorized funds to date for public benefit programs.

TABLE 2: Public Benefit Programs (in Millions of \$'s)

State	After Restructuring				Prior to Restructuring
	Efficiency/ RD&D/ Renewables	Rate Assistance	Weatherization	Total	
California	\$415.00	\$125.00	\$60.00	\$600.00	\$373.00
Connecticut	103.00	0	6.00	109.00	46.60
Delaware	1.80	0.80	TBD	2.60	N/A
Illinois	7.50	75.00	10.40	92.90	N/A
Maine	17.20	5.60	0.50	14.90	23.30
Maryland	N/A	34.00	TBD	34.00	N/A
Massachusetts	200.00	36.00	10.00	246.00	84.00
Montana	12.50	1.40	1.00	14.90	11.00
New Hampshire	TBD	13.20	TBD	13.20	5.00
New Jersey	117.00	13.20	15.00	145.20	145.20
New York	67.40	0.0	9.80	77.20	N/A
Ohio	15.00	103.00	TBD	118.00	103.00
Oregon	42.20	10.00	7.80	60.00	N/A

Pennsylvania	TBD	66.00	16.00	82.00	82.00
Rhode Island	17.00	2.00	0.40	19.40	10.00
Texas	TBD	15.00	TBD	15.00	15.00
Vermont	17.50	0	TBD	17.50	17.50

TABLE 3: Equivalent System Benefit Charges (in Mills per Kwh)

State	Efficiency/RD&D	Renewables	Rate Assistance	Weatherization	Total
California	1.31	0.63	0.59	0.28	2.81
Connecticut	2.80	0.75	0.00	0.20	3.75
Delaware	0.18	0.03	0.80	TBD	1.01
Illinois	0.06	0.04	0.60	0.07	0.77
Maine	1.51	TBD	0.50	0.05	2.06
Maryland	TBD	TBD	0.60	TBD	0.60
Massachusetts	3.14	0.75	0.60	0.17	4.65
Montana	0.91	TBD	0.19	TBD	1.10
New Hampshire	TBD	TBD	1.50	TBD	1.50
New Jersey	2.63	0.38	0.17	0.20	3.38
New York	0.52	TBD	0.08	TBD	0.60
Ohio	0.1	TBD	0.70	TBD	0.8
Oregon	1.0	0.30	0.60	TBD	1.90
Pennsylvania	TBD	TBD	0.53	0.13	0.66
Rhode Island	2.20	0.50	0.33	0.07	3.10
Texas	TBD	TBD	0.10	TBD	0.10
Vermont	3.30	TBD	TBD	TBD	3.30

Is there a "standard" approach to system benefit charges among the states? Not really. Each state is developing and applying the charge to meet perceived public benefit needs in that state. Still, two basic approaches for implementing these programs are emerging. The most common is the use of an independent state entity or energy, weatherization or LIHEAP office, often with an advisory board, under PUC oversight. The other is the use of the distribution utilities under PUC oversight. In two states, though, programs include a competitive bidding process -- to select projects (California) and to select utility contractors (Maine)

SUMMARY OF STATE PUBLIC BENEFIT PROGRAMS

The following provides a state-by-state summary of public benefit programs approved to-date. Each summary includes a description of the state program and estimated funds provided by category of public benefit.

CALIFORNIA

The California public benefits provides for a total charge of about 2.8 mills per kWh resulting in annual funding levels of approximately \$600 million, an increase of about \$227 million over the previous funding level. The program was enacted in September, 1996. It began March 31, 1998 will continue at least through 2001.

The budget for energy efficiency and renewable energy is \$415 million; \$218 million for efficiency programs, \$62 million for research and development, and \$135 million for renewable energy. The budget for the low-income utility rate discount program, California Alternative Rates for Energy (CARE), is funded at \$125 million per year. The low-income energy efficiency program is funded at \$60 million per year. Both the low-income programs include electricity and gas SBC funds. CARE provides a 15% monthly discount for low-income households.

California through its four separate public benefits programs has used two independent boards, California Board for Energy Efficiency (CBEE), California Low-Income Governing Board (LIGB), and a state agency, California Energy Commission (CBC), and the distribution utilities.

One goal of the California law was to administer the energy efficiency and low-income programs through an independent board instead of the distribution utilities. The assumption was that an independent fund administrator would ease the redirection of energy efficiency programs and reduce the concern of marketers that utilities might use such programs to gain an advantage in the retail market place. The attempt to administer the California energy efficiency program through the CBEE failed due to opposition from the public service unions and a finding from the arbitration board that state employees could perform the functions that were being outsource to the CBEE and their contractors. Attempts to add public employee staff to carry out the functions failed to be included in the final budget.

The CBEE fund administration function has been passed to the distribution utilities in order to implement the energy efficiency programs. The LIGB, observing the CBEE problem, also chose not to follow the proscribed independent fund administrator model. The distribution utilities administer the California low-income program.

The funding levels have been established for four years, 1998-2001. The authority to collect funds for the renewables program account expires on December 31, 2001. However, the authority to collect for the other programs is open-ended. This SBC authority does not include municipal utilities such as Los Angeles Department of Water and Power or the Sacramento Municipal Utility District, which have their own extensive programs.

		ANNUAL SYSTEM
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		BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	82.0	\$125.0
Weatherization	12.0	60.0
Efficiency/Renewables/R&D		
-- Efficiency	N/A	218.0
-- Renewables	N/A	135.0
-- R&D	N/A	62.0
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Total Efficiency/Renewables/R&D	\$279.0	\$415.0

* Not separate item

CONNECTICUT

The Connecticut public benefits program was enacted in April, 1998. The program provides a 3.0 mill/kWh charge for energy conservation and load management programs. The program also provides for a 0.5 mill/Kwh charge (increasing to 0.75 mill in July, 2001 and then to 1.0 mill in July, 2002) to establish a new Renewable Energy Investment Fund. The Fund will be managed by Connecticut Innovations, Inc. and will be used to promote investments in renewable technologies. Both programs are scheduled to begin on July 1, 2000.

The legislation also provided for a system benefit charge (to be determined by the PUC) to continue weatherization and other already existing low-income programs. The distribution utility will implement the efficiency program with oversight by the PUC through a Management Board. The PUC will administer the low-income programs (weatherization and bill assistance) and other elements such as public education funded by the low-income SBC.

Total spending for efficiency and renewable programs is expected to increase from about \$46.6 million under the law to about \$103 million. Spending for low-income programs is expected to increase from about \$2.5 million to \$6.0 million.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$0.0	\$0.0
Weatherization	4.0	6.0*
Efficiency/Renewables		

-- Efficiency	N/A	81.0
-- Renewables	N/A	22.0
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Total Efficiency/Renewables	\$42.6	\$103.0

Final level to be determined by PUC

DELAWARE

The Delaware public benefit program, enacted in March 1999, provides for a \$1.8 million for efficiency and renewable programs and \$0.8 million for low-income programs. The efficiency and renewable programs will be administered by the Delaware Economic Development Office; the low-income program will be administered by the Department of Health and Human Services.

		ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	N/A	\$0.8
Weatherization	N/A	N/A
Efficiency/Renewables/R&D		
-- Efficiency	N/A	\$1.8
-- Renewables	N/A	N/A
-- R&D	N/A	N/A
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Total Efficiency/Renewables/R&D	N/A	\$1.8

ILLINOIS

The Illinois public benefit program, enacted June, 1997, is administered by the Illinois Department of Commerce and Community Affairs (including the state energy and weatherization offices). The program provides funding for energy efficiency, renewable energy, and low-income assistance and is supported through fixed per month customer surcharges. The program is scheduled to sunset in 2007.

The customer surcharge is expected to raise approximately \$92.9 million per year (equal to approximately 0.67 mill/Kwh). Of these funds, approximately \$75 million will be used for rate assistance, \$10.4 million for weatherization, \$3.0 million for efficiency, and \$4.5 million

for renewables. A \$250 million Clean Energy Trust Fund established through a settlement with Commonwealth Edison is not included in the SBC program.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$0.0	\$75.0
Weatherization	0.5	10.4
Efficiency/Renewables		
-- Efficiency	N/A	3.0
-- Renewables	N/A	4.5
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Total Efficiency/Renewables	N/A	\$7.5

MAINE

The Maine public benefit program was enacted in May, 1997. The program is being implemented through a rulemaking by the state PUC. The program will include both an energy efficiency and low-income assistance program. The law provides for systems benefit charge with funding based on the 1999 activity levels.

The PUC has proposed energy efficiency programs funded at \$8.8 million (0.7 mill/kWh) beginning in 2000. This program would exclude large industrial customers both in terms of charge and participation. The low-income program is anticipated to be funded at the current levels of \$6.1 million (0.5 mill/Kwh). The program will be administered by distribution utilities. The Maine PUC will also develop a voluntary program allowing consumers to contribute to a renewable energy program. In addition, Maine has established a renewable portfolio standard requiring that 30 percent of electricity supplies come from renewable resources.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$5.6	\$5.6*
Weatherization	0.5	0.5*
Efficiency/Renewables		
-- Efficiency	N/A	17.2*
-- Renewables	N/A	0.0

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Total Efficiency/Renewables	N/A	\$17.2

*Final level to be determined by PUC

MARYLAND

Maryland's public benefit program was enacted in April, 1999. The law provides for a \$34 million a year program beginning July 1, 2000, to support low-income energy assistance and weatherization, equivalent to about a 0.6 mill system benefit charge. The program will also include the retirement of arrearages incurred prior to July 1, 2000. Of the amount that will be collected, \$24.4 million is specifically assigned to industrial and commercial classes and \$9.6 million to residential classed. A specific program was not authorized for energy efficiency or renewable programs. Current company-sponsored efficiency programs will remain under the review of the public utilities commission; the final program funding level will be determined through individual settlement negotiations.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$0.0	\$34.0*
Weatherization	0.0	*
Efficiency/Renewables		
-- Efficiency	N/A	TBD
-- Renewables	N/A	TBD
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Total Efficiency/Renewables	N/A	\$0.0

*Funds for weatherization are included as part of rate assistance.

MASSACHUSETTS

The Massachusetts public benefits program was enacted in November, 1997. The law provides for an energy efficiency surcharge of 3.3 mill/Kwh in 1998 declining to 2.5 mill by 2002 and 0.25 mill in subsequent years. The law also provides for a renewable energy surcharge of 0.75 in 1998, increasing to 2.25 by 2000 and then declining to 0.5 for every year after 2002. Of the energy efficiency funds, 20 percent of the amount spent in any year would be spent on low-income energy efficiency and education programs. In addition, the program requires the utilities to continue low-income financial assistance at current levels with the funds collected in a separate systems benefit charge.

The Department of Energy Resources (DOER), the state energy office, will administer energy efficiency funds through the utilities, with a required 2001 program review. The DOER must emphasize the need for "statewide market transformation programs" in order to systematically eliminate market barriers to energy efficiency goods and services. A low-income weatherization and fuel assistance network in Massachusetts will implement the low-income energy efficiency and an education component.

The Massachusetts Technology Park Corp, a quasi-public research and development entity, will administer the renewable energy trust fund (which includes funding to accelerate commercialization of new technologies). The DOER and an advisory board will assist in developing a funding plan and oversight. In addition, the state has a renewable portfolio standard requiring a continuation of existing renewables plus 1 percent of sales from renewables by 2003, 4 percent by 2009 and an additional 1 percent per year thereafter.

Total spending for efficiency and renewable programs is increased from about \$84 million to about \$200 million. Spending for low-income rate assistance will remain the same for rate assistance at about \$36 million per year and increase for weatherization from about \$1.6 million to \$10 million.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$36.0	\$36.0
Weatherization	1.6	10.0
Efficiency/Renewables		
-- Efficiency	N/A	150.0
-- Renewables	N/A	50.0
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Total Efficiency/Renewables	\$84.0	\$200.0

MONTANA

Montana enacted legislation in May, 1997 providing for a system benefit charge program of 2.4 percent of the 1995 utility revenues, an amount equivalent to approximately \$14 million (1.1 mill/Kwh). Of this amount, utilities must reserve a minimum of 17 percent for low-income programs (weatherization and LIHEAP). The other 83 percent can be used for renewables and energy efficiency. The program is scheduled to begin in 1999 and extend to 2003. The governance of the program is to be determined through ongoing regulation. The amount provided is equivalent to historic funding levels of about \$12.5 million for efficiency and renewables and \$2.4 million for rate assistance and weatherization.

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	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRURCTURING
Rate Assistance	\$1.4	\$ 1.4
Weatherization	1.0	1.0
Efficiency/Renewables		
-- Efficiency	N/A	TBD
-- Renewables	N/A	TBD
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Total Efficiency/Renewables	\$11.0	\$12.5

NEW HAMPSHIRE

New Hampshire enacted a low-income assistance program in May, 1997 that will be funded with an estimated charge of 1.5 mill/kWh. The program will be implemented by the state's community action agencies. It incorporates an administration and oversight role for the state energy office, which includes the state LIHEAP function.

The law also authorizes a systems benefit charge to fund other public benefit programs. In a rehearing order, the PUC vacated original decisions to phase out all utility DSM over two years. The rehearing order established a working group to assist in determining the scope and appropriate standards for energy efficiency programs, as well as an appropriate level of funding and a plan for administration of the funds. The working group, composed of a comprehensive set of stakeholder, recommended a 2 mill/kWh SBC charge. The Governor has proposed funding of 2.3 mill/kWh (\$22 million) for an energy efficiency and renewable energy program.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$0.0	\$13.2
Weatherization	0.5	TBD
Efficiency/Renewables		
-- Efficiency	N/A	TBD
-- Renewables	N/A	TBD
	-----	-----
Total Efficiency/Renewables	\$5.0	TBD

NEW JERSEY

The New Jersey legislature passed electricity-restructuring legislation January 28, 1999. The law provides for about a 3.0 mill/Kwh system benefit charge, which provides about \$230 million per year for energy efficiency and renewable energy programs. The non-by-passable charge will be imposed on all electricity public utility and gas public utility customers. The program will continue for at least eight years; after the eighth year the Board of Public Utilities (BPU) will determine the appropriate level of program funding.

The current utility DSM programs are funded at about \$230 million per year. The law calls for collecting this level of funding, allocating at least 50 percent of the total to new energy efficiency and renewable energy programs. The current DSM commitments, including the standard offer commitments, could use up to 50 percent of the total funding. Programs for class I renewable energy projects (photovoltaic, wind and fuel cells) will be funded at 25 percent of the new funding level, approximately \$29.5 million per year.

The BPU, in consultation with the Department of Environmental Protection, will determine the appropriate level of funding for energy efficiency and class I renewable energy programs within four months and every four years thereafter; the Board will undertake a comprehensive resource analysis of energy programs. The level of funding for new programs will rise as the standard offer commitments expire until the level of funding reaches \$140 million per year. Low-income programs will continue at approximately current levels through funds collected in distribution utility rates. The Board will determine the levels of funding and appropriate administration.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	13.2	\$13.2
Weatherization	15.0	15.0
Efficiency/Renewables		
-- Efficiency	117.0	87.5
-- Renewables	0.0*	29.5
	-----	-----
Total Efficiency/Renewables	\$117.0	\$117.0

* Included as part of energy efficiency line.

NEW YORK

New York has implemented restructuring through regulatory orders by the Public Service Commission (PSC). A three year SBC fund of \$234.3 million was established for the six

utility service areas by PSC order, which designated the New York State Energy Research and Development Authority (NYSERDA) as the primary fund administrator. NYSERDA is administering \$173 million of the fund; the utilities are administering the other \$60 million. A 17 member SBC Advisory Group consisting of stakeholders was established to provide input and guidance to NYSERDA on program design and implementation.

The New York SBC program covers energy efficiency, research and development, low-income programs and environmental disclosure. Weatherization is included in the low-income program. The research and development programs include wind, photovoltaics, and biomass.

The three year funding total by program, including both the NYSERDA and utility administered programs, is as follows: energy efficiency, \$161.6 million; research and development, \$40.4 million; low-income assistance, \$29.3 million; and environmental disclosure \$3.0. On an annual basis, program funding equals about 0.6 mill/Kwh. In addition, this amount does not cover programs operated by LIPA which is not regulated by the PSC. LIPA has a current public benefits program of \$32 million per year, which is estimated to decrease to about \$12 million per year. It also does not include the extensive (\$200 million, multi-year) energy efficiency program of the New York Power Authority.

PROGRAM		ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	N/A	*
Weatherization	N/A	\$9.8
Efficiency/Renewables/R&D/		
-- Efficiency	N/A	53.9
-- Renewables	N/A	0.0
-- R&D	N/A	13.5
-- Environmental Disclosure	N/A	1.0
	-----	-----
Total Efficiency/Renewables/ R&D/Environment	N/A	\$68.4**

* Does not include supplemental low-income assistance provided by the New York Department of Social Services.

** Does not include funding by the Long Island Power Authority and/or New York Power Authority or ongoing NYSERDA R&D funding prior to SBC program.

OHIO

The legislation establishes a revolving loan fund for all end use classes. The loan fund will be established starting January 1, 2001 with annual payments of \$15 million per year for 5 years followed by annual payment of \$5 million for 5 years or until the fund reaches its \$100 million cap. The Ohio Department of Development (ODOD) will design and administer various loan programs working with private sector financial institutions.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING *
Rate Assistance	\$103.0	\$103.0
Weatherization	0.0	*
Efficiency/Renewables		
-- Efficiency	N/A	15.0**
-- Renewables	N/A	
	-----	-----
Total Efficiency/Renewables	\$103.0	\$15.0

* Final level to be determined by PUC

**Sets the total funding for the efficiency programs at \$100 million; \$15 million per year for five years; \$5 million per year thereafter until the \$100 million total is reached.

PENNSYLVANIA

Pennsylvania enacted electricity industry restructuring in December, 1996. The law did not set a specific funding level for low-income and energy efficiency programs. It did require that low-income and energy efficiency programs to be at current levels or higher. The law set no specific funding level, however, the "current" level of energy efficiency programs is about \$10 million per year and the low-income and other customer assistance program is about \$26 million per year. The law also gave the PUC the authority to require other public benefit programs. The PUC has since limited public benefit programs to low-income and energy efficiency programs. These programs are being implemented through individual utility restructuring/rate proceedings and administered by the state's utilities.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$66.0	\$66.0*
Weatherization	16.0	16.0
Efficiency/Renewables		

-- Efficiency	11.0	TBD*
-- Renewables	N/A	TBD*
	-----	-----
Total Efficiency/Renewables	\$12.0	TBD*

* Law requires that low-income programs will be funded at minimum at existing levels.

**Amounts are being determined in individual settlements.

RHODE ISLAND

Rhode Island enacted public benefits program in April, 1996 covering energy efficiency and renewable energy with annual funding of about \$17 million. The five-year program, which began in 1997, includes funding for energy efficiency and renewable resources. The statute has a 2.3 mill/Kwh floor; the program is being funded at about 2.7 mill/Kwh, which is similar to previous funding levels. Energy efficiency programs are being implemented through utility-based collaborative. Subsidized rates for low-income assistance are also being continued with the funds collected in distribution rates charged to all other customers.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING
Rate Assistance	\$2.0	\$2.0
Weatherization	0.4	0.4
Efficiency/Renewables		
-- Efficiency	N/A	14.0
-- Renewables	N/A	3.0
	-----	-----
Total Efficiency/Renewables	\$10.0	\$17.0

TEXAS

Texas electricity industry restructuring was enacted during June 1999. The legislation included a PUC administered systems benefit charge fund not to exceed .065 mill/kWh. The uses of the fund are limited to customer education and low-income assistance programs, and to replace potential state and local school funding reductions due to property tax revenue declines that may result from restructuring.

The Texas legislation requires utilities to acquire, through market-based standard offer programs or limited targeted market transformation programs, 10 percent of the annual growth in electricity. Also, the law requires the PUC to establish a minimum renewable

capacity requirement for each retail energy provider to achieve an additional 1280 mw of renewables by 2003 ramping up to 2880 by 2009.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING*
Rate Assistance	N/A	\$15.0
Weatherization	0.0	TBD
Efficiency/Renewables		
-- Efficiency	N/A	TBD
-- Renewables	N/A	TBD
	-----	-----
Total Efficiency/Renewables	N/A	TBD

*Final level to be determined by PUC

VERMONT

Vermont has not enacted restructuring legislation; however, legislation was enacted in June 1999 authorizing the Public Service Boards to establish a systems benefit charge. This SBC is capped at \$17.5 million per year to be used for energy efficiency programs. The funds are to be administered by a statewide non-utility organization.

	ANNUAL SYSTEM BENEFIT FUNDING PRIOR TO RESTRUCTURING	ANNUAL SYSTEM BENEFIT FUNDING AFTER RESTRUCTURING *
Rate Assistance	\$0.0	TBD
Weatherization	0.0	TBD
Efficiency/Renewables		
-- Efficiency	17.5	17.5
-- Renewables	N/A	*
	-----	-----
Total Efficiency/Renewables	\$17.5	\$17.5

* Vermont has not yet passed restructuring legislation. The state has recently passed legislation giving the Public Services Commission authority to establish a SBC fund.

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