



American Council for an Energy-Efficient Economy
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**A Federal System Benefits Fund: Assisting States
to Establish Energy Efficiency and Other System Benefit Programs**

One of a Series of ACEEE Fact Sheets

What Are System Benefits?

Historically, regulated electric utility companies have provided a number of energy-related public services beyond simply supplying electricity. Such services have included: bill payment assistance and energy conservation measures for low-income households; energy efficiency programs for residential and business customers; pilot programs and other efforts to promote renewable energy resources; and research and development (R&D) efforts to foster the development of new energy supply and delivery technologies. The term “system benefits” has been coined to describe these corollary benefits of a regulated utility system.

Achievements of Past System Benefit Programs

Approximately 60% of historic system benefit funding has been spent on energy efficiency and load management programs, which have:

- Saved 50–60 billion kilowatt-hours (kWh) annually in recent years, resulting in consumer energy bill savings of about \$4 billion annually.
- Reduced peak electric demand by 25,000–30,000 megawatts (MW) in recent years, the equivalent of 80–100 typical (300 MW) power plants. Without these savings, current reliability problems in many regions of the country would be much worse.
- Generally cost less than \$0.03/kWh saved, much less than the cost to produce a kWh.

System benefit programs have also provided services to low-income customers in dozens of states, led to many R&D advances, and furthered the growth of renewable energy use.

Under Utility Restructuring, System Benefit Programs Are Threatened

The shift to “competition” in the electric industry has caused utilities to cut their costs and eliminate spending on activities that are not seen as directly contributing to profits. The damage includes:

- Utility spending on energy efficiency and load management programs peaked at \$2.7 billion in 1993 (worth more than \$3 billion in 1999\$). Since then, spending has declined more than 50% in real terms, with 1999 spending totaling only \$1.4 billion.
- Savings (energy and peak demand) from these programs rose steadily in the early 1990s but since 1995 savings have leveled off. From 1990 to 1995, peak load savings grew by 16,000 MW; if these trends had continued, savings in 2000 would have been 46,000 MW, representing about 20,000

additional MW of savings that were lost due to funding cutbacks (actual savings were 26,000 MW in 1999, the last year for which data are available).

- Programs to support renewable energy and energy R&D have been scaled back by many utilities. For example, a Government Accounting Office analysis found that utility spending on R&D declined by one-third between 1993 and 1996.

System Benefit Funds Address this Problem

To address this problem, twenty states have established system benefit funds to pay for system benefit programs. These funds are supported by a small charge (typically around 1 tenth of a cent/kWh) on distribution service that is paid by all electricity users, regardless of whom they buy power from.

- State system benefit funds have generally been quite successful. For example, within the last 3 years, New York's program is already reducing electric demand in the state by more than 140 MW while saving consumers tens of millions of dollars annually. Consumer savings are providing a 1.4-year payback on funds invested. For each \$1 spent out of the fund, customers, energy service companies, and others are investing \$3, providing good leveraging of fund expenditures. These programs are also reducing emissions from power plants and helping economic development in the state.

Need for a National System Benefits Fund

- Thirty states do not yet have system benefit funds, and with restructuring problems in California, the remaining states are unlikely to proceed with restructuring legislation soon. These states now enjoy some of the benefits of programs from adjoining states, such as reduced pollutant emissions and improved regional electric reliability, but don't pay for these programs.
- A national system benefits "matching fund" (such as those proposed by Senator Jeffords' S.1369 and Representative Pallone's H.R.2569 in the last Congress) could be used to support states that adopt their own system benefits funding mechanisms with an infusion of matching funds (up to a ceiling—e.g., 2 tenths of a cent/kWh in the Jeffords and Pallone bills). In this manner, states would be rewarded, not penalized, for using their own resources to support programs that provide important regional and national benefits. This matching fund approach would provide broad policy support at the federal level but allow states to design the details of their system benefits programs to best suit their individual state circumstances.
- A national matching fund would also provide important energy-saving, peak reduction, economic, and environmental benefits for the nation. ACEEE estimates that a nation-wide program would provide the following benefits over and above the benefits of current state-system benefit programs:
 - Save more than 300 billion kWh annually by 2010.
 - Provide net benefits to consumers of about \$40 billion from investments made through 2010.
 - Reduce peak electrical demand by about 80,000 MW in 2010.
 - Reduce power plant emissions including cutting greenhouse gas emissions by the equivalent of at least 70 million metric tons of carbon in 2010.