

Systems Benefits Charge Programs



**The Ozone Transport Commission
Technology and Innovations Committee**

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Background

Systems benefits charges [or societal benefits charges, both abbreviated SBC] are mill rate charges on customer electricity bills that are designed to fund energy conservation and efficiency programs. Some SBC programs also fund development of renewable technologies, while others have separate funds for this purpose. The level, type and scope of SBC varies slightly among OTC states. A board comprised of several stakeholder groups, including State environmental and energy regulatory agencies provides oversight of SBC programs. A description of each State's SBC program funding is provided as an appendix to this section of the workbook.

SBC programs to a large extent are consistent with many of the demand side management (DSM) efforts that began in the 1970s to address electrical load growth. Like DSM, initial SBC programs are aligned towards a sector based effort: commercial and industrial, residential, municipal/state, low income and R/D. SBC funding is to be directed at efforts and technologies that are available in the market today, or will be soon. SBC funds can be used for equipment, such as appliances, lightbulbs, etc, building design and promotion of new technologies that have been proven to work. Currently, the wires companies that will be providing electricity to their customers manage SBC programs. State boards have reviewed and approved the wires companies plans for allocation of the SBC funds and will be actively involved, especially at the outset, in oversight to assure that the funds are directed where they are supposed to be and that they are achieving a demonstrable result in MWh penetration.

In States where restructuring acts have provided for a separate new technologies based fund, there are important linkages between SBC and these technologies efforts [also note that in a couple cases, the SBC and tech funds are one and the same, further underscoring the linkage]. Tech funds are to be focused on development of new renewables and piloting of equipment that has not been demonstrated. To a large extent, the tech funds help manage risk during the initial testing and application of the new idea, equipment or renewable. Once demonstrated, such technology can be moved into the mainstream through SBC efforts.

SBC programs are anticipated to provide many opportunities for emission reductions in the years beyond 2001. States will need to evaluate their own policies and procedures and perhaps even amend their regulations in order to remove barriers that impede implementation of renewables, efficiency measures and clean power generation. SBC and tech funds offer opportunities to generate substantial MW, replacing older and dirtier fossil units. Appropriate metrics need to be developed to assure that the efficiency measure, new technology or improved building design truly has a positive environmental effect. One idea that already exists is the use of set-asides for efficiency and renewables. A specific portion of the State's NOx budget [typically 3-5%] is set-aside to promote development of these efforts. Both NY and MA already have these set-asides and other States are considering it (CT).

SBC programs are also closely linked with other restructuring efforts; this linkage underscores the advantages of intra- and inter-State cooperation among energy and environmental agencies. A majority of SBC programs have societal benefits tests that promote funding of projects with attractive payback periods, so there are linkages with economic development agencies as well.

Short Term Issues

Program inception and startup creates many collaborative opportunities among States with SBC funds. Existing DSM [demand side management] efforts are being incorporated and superceded by those authorized under restructuring acts. DSM constituencies were aligned along sectors, e.g. commercial/industrial, low-income, residential, etc, a trend that has been continued at least in the initial SBC phase in some States. Increased chances for high level co-operation, agenda setting, integration of energy and environmental policies are favored given the structural framework established by most restructuring acts. Shared responsibility for development of incentives for clean generation can address many heretofore unique energy regulators concerns about reliability and grid stability. A project can work to serve multiple benefits.

Taking advantage of these opportunities requires initiative, knowledge and improved communications, both across and within agencies. Several options exist to both foster increased dialogue and to help assure successful SBC programs (Success being a measure of both market penetration and environmental benefits). States should strive to:

- Recognize importance of energy efficiency and conservation to air quality
- Recommend communication among member States and with their respective PUCs
- Recommend identification of parameters that would serve as metrics defining program success
- Further recommend that program success be defined in a context of a multi-pollutant benefit
- Recommend that member states adopt policies, procedures, regulations as appropriate, to remove impediments to links between efficiency and air quality, e.g. encouraging set-aside programs, permits by rule for clean generation, etc.
- Recommend that member States work with their respective ISO to develop information systems that allow efficiency and renewables to bid into the grid without administrative difficulties
- Recommend that EPA examine its policies, procedures and regulations to eliminate barriers to development and use of SIP credits for States that have a SBC/renewable program.
- Recommend that member States work together to identify opportunities for efficiency and renewable projects and that their progress and results be actively communicated [bulletin board or web page?].

Another short-term measure for those states with set-aside programs is to provide quantification of their benefits and seek their expansion to help with one-hour ozone attainment planning. The advantages of this approach could overcome past reliance on

ever smaller incremental reductions from the same source categories. Instead of chasing the last 1% reduction from a stationary source category, a broader approach that links energy, economic and environmental interests could achieve much more significant reductions. While a SBC program unto itself could not be solely directed towards the transportation sector, funds could be used as part of an integrated strategy whereby the SBC funds, focused on energy efficiency, could be leveraged to induce interest in transportation efforts. A mass transit facility for example, where the building itself was highly efficient and attractive, could in turn promote interest in providing parking for hybrid vehicles and exclude conventionally powered ones. This idea could be further carried to land use where energy efficiency could achieve multiple benefit.

Long Term Measures

States must continue to engage EPA and DOE to assure that future strategies will not proceed along the same compartmentalized sectors that have thus far dominated air quality attainment planning and implementation. EPA and DOE administrators and managers have embraced the concept of multi-pollutant strategies. OTC States should work to assure that this commitment is realized. Engaging in dialogue alone is not adequate; collectively States and EPA/DOE can work on deliverables so that our respective goals are met.

Possible long-term measures include

- SBC efforts as part of the PPA process.
- OTC technology and innovations conferences.
- Development of a clearinghouse, perhaps in coordination with NESCAUM and MARAMA, to showcase State efforts, assist in identifying pilots and lessons learned.
- Refining metrics to provide accountability and certainty for continued and future SBC efforts

U. S. Systems Benefits Charge Funding Mechanisms

State	Program
California	Efficiency: \$185 million per year 1998-2001, 1.2 mills/kWh Renewables: \$135 million per year 1998-2001, 0.8 mills/kWh
Connecticut	Efficiency: up to \$90 million per year, 3 mills/ kWh Renewables: ramp up from 0.5 mills in 2000 to 1 mill in 2004, \$30 million per year at 1 mill
Delaware	A charge of approximately \$0.000178/kWh funds environmental incentive programs, and is expected to generate \$1.5 million annually.
Illinois	\$3 million/year for DSM, 0.03 mills/kWh Illinois Clean Energy Community Trust funded from sales of generating assets \$250 million for a variety of projects, including clean coal. Expectation that funding will last 10+ years.
Maine	TBD
Massachusetts	Efficiency: \$135 million/year, average of 2.9 mills/kWh Renewables: \$40 million per year, avg of 0.95 mills/kWh Currently subject to legal challenge [munis]
Minnesota	Renewable ramp up from \$4.5 million in 1998
Montana	\$2 million per year from 1999-2003
New Jersey	Funding mechanism could generate as much as \$96 million for EE related projects
New Mexico	\$4 million per year beginning in 2001
New York	The energy efficiency program is expected to receive \$143 million in SBC funds over a three-year period. The program anticipates that private funding from trade allies will result in over \$500 million being made available. Approximately \$22.1 million will be generated through SBC funding for the research and development program.
Oregon	\$9-10 million per year from 2001-2011
Pennsylvania	The structure of each fund varies slightly, but a general rule of thumb is that the utilities will charge 1/100 of a cent per kWh in transmission and delivery rates for approximately five (guaranteed) years. Some funds were structured so that the utility also made a lump-sum payment. The total revenue for the four funds is expected to total approximately 55 million dollars.