

Boston Edison Company

Small C/I Program

Boston Edison Company's Small Commercial and Industrial Retrofit Program (Small C/I Program) was created to provide free technical assistance, analysis, and energy efficiency measure installations for nonresidential customers with peak demands of less than 150 kW. The program took off in 1990, thanks in large part to a collaborative effort between BECo and non-utility parties whereby the collaborative's independent consultants worked with BECo staff to design and develop the Small C/I Program as well as other DSM efforts at BECo.

While the earliest implementation of the program focused on the installation of energy-efficient lamps, since March of 1990 the program has continued to identify other cost-effective measures, including HVAC and water heating upgrades, and has added them to options available to customers at no charge. An added feature of the program introduced in 1991 is a "customer generated proposal" option which allows customers to submit applications for self-designed retrofits. Customers can use electrical contractors of their choice, a mechanism whereby electrical contractors market the Small C/I Program independently complementing BECo's marketing efforts.

To date, the Small C/I Program has resulted in total annual energy savings of 8,022 MWh, total cumulative energy savings of 10,544 MWh, and lifecycle energy savings of 120,337 MWh. In terms of capacity savings the program has resulted in cumulative summer peak coincident capacity savings of 1.83 MW and cumulative winter peak capacity savings of 1.57 MW. In 1990, annual energy savings per customer were 3,144 kWh and this increased to 6,005 kWh in 1991. Capacity savings per participant in 1990 were 0.79 kW for summer peak coincident and 0.72 kW for winter peak. In 1991 capacity savings increased to 1.3 kW per participant for summer peak and 1.1 kW for winter peak.

To date BECo has spent a total of \$7,888,600 on the program with \$2,114,700 spent in 1990 and \$5,773,900 spent in 1991. The total costs include purchases of equipment, training, contractors, BECo labor, monitoring and evaluation, and "overhead and other costs". Boston Edison estimates that there are 76,000 eligible customers for the Small Commercial/Industrial Program. In 1990 there were 802 participants, and an average cost per participant of \$2,636.77. In 1991, there were 916 participants and the cost per participant was \$6,303.39. Now that the program is up and running and has clearly been successful, BECo is planning a nominal cost share from customers. This is a key issue for the effective transfer of the program to other service territories.

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**BOSTON EDISON COMPANY
Small C/I Program**

Sector: Commercial and Industrial

Measures: Lighting, water efficiency, weatherization, HVAC.

Mechanism: Direct installation

History: Started in late 1989.

1991 Program Data

Energy savings: 5.5 GWh

Lifecycle energy savings: 82.5 GWh

Peak capacity savings: 1.20 MW Summer
0.99 MW Winter

Cost: \$5,733,900

Cumulative Data (1990-1991)

Energy savings: 10.5 GWh

Lifecycle energy savings: 120.3 GWh

Capacity savings: 1.83 MW Summer
1.57 MW Winter

Cost: \$7,888,600

Participation rate: 2.3%

The Results Center produced 126 profiles of the most successful energy efficiency and renewable energy programs in the United States and around the world in the early and mid 1990s. With the support of the John D. and Catherine T. MacArthur Foundation, Ted Flanigan directed a research team at Colorado-based IRT Environment to produce and distribute these exceptional examples. Thanks to strong demand for solid case studies, The Results Center was supported by dozens of major utilities and energy associations worldwide. Today, The Results Center is managed again by Ted Flanigan, now at California-based EcoMotion Incorporated, a firm focused on strategic consulting, information dissemination, program design, outreach services, and aggressive implementation. To nominate highly successful programs, contact: The Results Center, c/o EcoMotion, 15375 Barranca Parkway, F-104, Irvine, CA 92618, (949) 450-7155, or TFlanigan@EcoMotion.us