In the early and mid 1990s The Results Center produced 126 case studies of the most successful energy efficiency and renewable energy programs in the United States and around the world. 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.

#98 EXECUTIVE SUMMARY

BURLINGTON ELECTRIC COMPANY, COMPREHENSIVE MUNICIPAL DEMAND SIDE MANAGEMENT

Burlington Electric Department (BED) is a municipal utility that has served the residents of Burlington, Vermont with a mix of electricity and energy efficiency services since the late 1970s when it responded to the oil shocks by introducing its first energy efficiency programs. Since then a number of factors have driven efficiency in Burlington , ranging from the very pronounced concerns over power purchases from Hydro-Quebec and its controversial James Bay development to the termination of 40 MW of purchased power contracts in the next ten years. Perhaps it was the controversy over the prospect of purchasing additional blocks of power from the James Bay that was most telling of the City's and utility's commitment to environmental and social responsibility. Although the power would have been generated in hydroelectric dams, the Burlington community was deeply concerned about the plight of the Cree and Inuits that are native to the James Bay area, as well as other environmental concerns. While purchasing power would have been the most expedient option, Burlington 's voters elected instead to pass an $11 million bond issue to catalyze DSM in Burlington . Despite the fact that doing so would raise rates, voters in the City chose to reduce the flow of dollars out of the community and to avoid participation in the ecological impacts of the James Bay.

Burlington is a highly progressive community politically and thus it's no surprise that its utility has been a national leader in a number of program areas. BED introduced its Smartlight program, a leasing program for compact fluorescent lamps (CFLs), at a time when many energy efficiency enthusiasts questioned whether it was possible to get desirable levels of program participation and thus savings with any form of customer payment requirement. And while electric utilities across the country fear fuel switching away from electricity, BED promoted the conversion from electric resistance heating to other fuels to reduce its winter peak and worked with the City's Building Department to get resistance heating banned in all future applications. BED has been careful to offer all ratepayers the opportunity to participate in its DSM programs. Thus its eight programs provide a comprehensive package, from residential audits, direct installations, leasing of CFLs, fuel switching assistance, to programs targeted specifically at small commercial and industrial customers, to the "Top 10" program which emphasizes savings for BED's largest customers. This portfolio of programs has been extremely well received, resulting in a situation where the utility is "of the people and for the people." This fundamental orientation, whereby BED considers its customers as owners, has been key to BED's success with the delivery of energy services.

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BURLINGTON ELECTRIC DEPARTMENT
Comprehensive Municipal DSM

Sector:	*Residential, Commercial, Industrial*
Measures:	*Wide spectrum of load management and efficiency improvements from residential radio-controlled water heaters; to weatherization; energy-efficient lighting, HVAC, and refrigeration; and fuel switching*
Mechanism:	*CFL leasing; residential direct installation; residential and commercial new construction incentives; concentration on largest customers with payback buy-downs*
History:	*DSM began in 1980; ramped up in 1990; full roster of programs implemented in 1991 and continuing to date*

1993 PROGRAM DATA

Energy savings:	*9,198 MWh*
Lifecycle energy savings:	*128,772 MWh*
Capacity savings:	*2.6 MW*
Cost:	*$861,000*

CUMULATIVE DATA (1991-1993)

Energy savings:	*33,944 GWh*
Lifecycle energy savings:	*290,183 GWh*
Capacity savings:	*5.5 MW*
Cost:	*$2,410,000*

CONVENTIONS

For the entire 1994 profile series all dollar values have been adjusted to 1990 U.S. dollar levels unless otherwise specified. Inflation and exchange rates were derived from the U.S. Department of Labor's Consumer Price Index and the U.S. Federal Reserve's foreign exchange rates.

The Results Center uses three conventions for presenting program savings. Annual savings refer to the annualized value of increments of energy and capacity installed in a given year, or what might be best described as the first full-year effect of the measures installed in a given year. Cumulative savings represent the savings in a given year for all measures installed to date. Lifecycle savings are calculated by multiplying the annual savings by the assumed average measure lifetime. Caution: cumulative and lifecycle savings are theoretical values that usually represent only the technical measure lifetimes and are not adjusted for attrition unless specifically stated.