

Center for Energy & Environment

Multifamily Retrofit Program

The Center for Energy and Environment (CEE), located in Minneapolis, Minnesota, has implemented the Multifamily Retrofit program for Minnegasco since 1987. CEE, formally the Minneapolis Energy Office, a City agency, had extensive expertise in delivering efficiency services to residential customers and with Minnegasco developed a unique and effective means of providing gas efficiency services to multifamily building owners, a difficult but important market niche.

With the financial support of Minnegasco and beginning in 1981, CEE laid a solid foundation for the program by performing rigorous technical analyses of various gas saving retrofit measures coupled with field testing. These detailed analyses of load profiles, costs, and measured savings provided a sound basis for Minnegasco (and subsequently other utilities implementing similar programs designed by CEE) to be assured that their DSM investments are indeed cost effective and result in anticipated energy savings.

A second defining characteristic of the Multifamily Retrofit program is its basic orientation which fosters careful analysis coupled with education, rather than relying on enticing incentives for efficiency retrofits. Programs developed by CEE focus on convenience and responsiveness to customers -- through a one-stop approach from auditing to financing to post-installation inspections -- more than on the large rebates or other financial incentives. CEE believes that customers need to assume responsibility for their energy savings and thus must engage in training and ongoing maintenance activities to guarantee long-term savings, resulting in relatively low-cost utility programs with high participation rates and persistent energy savings.

The Multifamily Retrofit program primarily emphasizes upgrades to mechanical systems related to space and water heating. The program's focus has been on steam balancing, tune-ups, and vent dampers for steam-heated buildings, and on resets, cut-outs, and vent dampers for hydronically-heated buildings. More sophisticated measures -- such as conversions from steam to hot water heating systems -- are also made available through the program. To date, CEE and Minnegasco have teamed up to audit over 44,000 apartments in nearly two and a half thousand buildings and thanks to this effective program design, nearly 30,000 units have been retrofitted to date. Furthermore, since the program is reaching market saturation in Minneapolis, Minnegasco plans on expanding the program to encompass its entire service territory.

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CENTER FOR ENERGY & ENVIRONMENT Multifamily Retrofit Program

Sector: Multifamily buildings

Measures: Gas saving measures including steam balancing, boiler tune-ups, reset controls and cutouts, modular boilers, condensing water heaters, integral flue, thermal vent dampers

Mechanism: CEE contracted by Minnegasco to identify eligible building owners, to perform audits, and provide consultation, contractor selection, and post installation inspections

History: Program began in 1982; 2,348 audits conducted, 1,479 buildings have participated encompassing nearly 30,000 units in the Minneapolis area to date

1993 PROGRAM DATA

Gas savings: 19,200 MCF
Lifecycle gas savings: 211,200 MCF
Cost: \$96,323

CUMULATIVE DATA (1987-1993)

Gas savings: 749,108 MCF
Lifecycle gas savings: 1,390,708 MCF
Cost: \$768,647

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