

Sacramento Municipal Utility District

Residential Peak Corps Program

More than a decade before the Sacramento Municipal Utility District (SMUD) prematurely retired its Rancho Seco Nuclear Plant, ushering in a dynamic period of demand-side management, SMUD implemented its Residential Peak Corps program as a full-scale initiative. The program then, just as it is now, was intended to address Sacramento's needle peaks which occur on summer days when temperatures climb above 100° F, sometimes for several days in a row.

The Residential Peak Corps program provides peak clipping/load shifting through the remote cycling of central air conditioners. SMUD usually cycles participating central air conditioners 10 to 16 days per summer with typical cycling durations of up to four hours. The program currently offers three cycling options with participants receiving discounts on their summer electric bills. Participants selecting the "Peak Performer" option may have their air conditioning curtailed for up to four hours in order to save up to \$20 per month. Others who agree to curtail their air conditioners for 40 minutes out of the hour select the "Saver Plus" or "67% option" and earn up to \$15 per month in savings. For the "Basic Saver" or "50% option", air conditioners are cycled for 30 minutes out of the hour.

While SMUD uses direct mail, local radio, and print advertising effectively, program participation has been enhanced greatly by SMUD's Rule 15, a requirement that all new homes with central air conditioners receiving power from SMUD must participate in the Peak Corps program. While homeowners may elect to subsequently disconnect, fully 78% of Rule 15 participants have remained in the program.

Customer satisfaction has also been a cornerstone of the Peak Corps program. To ensure satisfaction, SMUD provides customers the option of calling the utility and changing their cycling option or even dropping out of the program with as little as 24 hours notice. For participants, SMUD staff believe that communication is key, not only educating customers about the program's intents and operations, but also by providing customers with adequate advance warnings of power interruptions. Thus SMUD routinely runs announcements on local radio and maintains a hot-line for customer call-ins and information.

Residential Peak Corps is one of SMUD's most successful DSM programs. In fact, the program currently serves nearly 100,000 customers, an impressive 45% of eligible customers, and provides control of more than 100 MW of peak demand at a current annual cost of about \$3 million, or less than \$250 per incremental shifted kilowatt.

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SACRAMENTO MUNICIPAL UTILITY DISTRICT Residential Peak Corps Program

Sector: Residential

Measures: Dual Relay AC Cyclers

Mechanism: Program provides peak clipping and load shifting through the remote cycling of residential central air conditioners during selected summer afternoons. Customers have three cycling options. Each option cycles AC units for a certain amount of time; monthly customer incentives are based accordingly

History: Pilot program ran in 1978. Implementation began on a full-scale basis in 1979 and continues today

1993 PROGRAM DATA

Peak capacity savings: 12.1 MW
Cost: \$3,031,900

CUMULATIVE DATA (1979 - 1993)

Peak capacity savings: 100.4 MW
Cost (1992-1993): \$5,950,100

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