

## Portland General Electric

### Energy Smarts for Schools

While most utilities engaged in demand-side management are providing their customers with direct incentives and other services such as energy audits, analysis, and modelling, Portland General Electric has taken a lead position with its schools program. School programs represent a class of DSM programs that foster long-term value changes while serving to implement short-term retrofit measures in both schools and students' homes. As such school programs will quite likely be the focus of additional utility attention in the coming years.

Energy Smarts for Schools draws from two well-defined disciplines, energy awareness curricula and school facilities retrofits, and then embellishes this synergistic combination with some quite unique and potentially powerful elements. First off, schools are retrofitted with energy-efficient equipment saving school districts money and demonstrating energy efficiency retrofits for the student body and faculty alike. Second, school children from kindergarten to 12th grade are exposed to an innovative and progressive curricula that fosters an appreciation of the value of energy and raises awareness of the critical link between energy use and the environment.

One element of the curriculum is an innovative program called "In Concert with the Environment." Students take home a questionnaire about their household's energy use, purposefully too complex to complete without the assistance of their parents. Then students bring the questionnaire back, enter the data into user-friendly software, and take home a profile of their home's energy use and a list of recommended energy efficiency measures! (PGE also sends the students home with some basic, low-cost measures to start the "self-administered" retrofit process as well!)

PGE has added two other elements to the program. First, the utility will provide funding (in the form of assurances) so that school districts can hire resource managers who are intended to be instrumental in fine-tuning building operations and resource use including electricity, oil and gas, and water. Second, as an outgrowth of the curricula programs, PGE provides small grants for a wide variety of student-initiated educational projects that focus on energy efficiency.

The strength of this profile is not its data, but its concept. While Energy Smarts for Schools began in 1991 and preliminary impact data is beginning to surface, trying to assess the impact of value changes that result from the curricula programs is nebulous at best. This issue will not only affect PGE's ability to recover its DSM costs associated with Energy Smarts for Schools, but will be shared by utilities across North America trying to move beyond short-term incentives and towards a market transformation that must be fundamentally based in value change.

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#### PORTLAND GENERAL ELECTRIC Energy Smarts for Schools

**Sector:** Institutional (Schools)

**Measures:** Energy efficiency improvements to facilities; educational materials for classrooms

**Mechanism:** Four-piece program includes educational effort, retrofit component, grant awards, and enables district wide resource conservation management officials

**History:** Components began in 1991; fully integrated in 1992

#### 1992-1993 Program Data

**Participation:** 90 facility retrofits  
5 resource conservation mgrs  
12 grant awards  
50,000 students

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](mailto:TFlanigan@EcoMotion.us)