

# ENERGY PROGRAMS: SAVING BEGETS MORE SAVINGS

## Christine Doonan

The district's Supervisor of Grounds and Maintenance, Kevin Knowles, says the incentives made it much easier to get projects off the ground, since paybacks would be relatively quick and costs (with incentives) comparatively minimal.

"We started with lighting retrofits, which is a natural since it's the low-hanging fruit of energy conservation," says Knowles. All interior lighting in the district's buildings has been retrofitted.

Other improvements include HVAC control software upgrades and the installation of programmable thermostats and occupancy sensors. These projects also enjoyed significant rebates. Knowles says the projects produced excellent savings and generally qualified for the 70% maximum eligible rebate.

"Another big advantage to the rebates, besides the energy savings that resulted, was that the rebate money could then be applied to more energy-saving projects, so the level of efficiency is almost self-perpetuating," he explains.

In 2007, the utility expanded its rebate program to include construction projects. Three of the district's older elementary schools – Hillcrest, Mt. Pilchuck, and Sunnycrest – were in need of modernization and were given a ground-up treatment with specific care in the design phase taken to maximize efficiency to standards well above energy code standards and thus generated maximum rebate amounts.

The PUD estimates that, as a result of improvements throughout the school district buildings since 2005, electricity consumption has decreased enough to yield an average of \$50,000 in annual savings per building.

While great progress was made from efforts begun in 2005, in 2010 the district applied for and received a grant of \$560,000 from the Office of the Superintendent of Public Instruction (OSPI), which covered almost 40% of implementation costs for projects ranging from updating BAS controls to new boilers, to a heat recovery system, to pump upgrades. In March of that year, the district entered into collaboration with Energy Education, Inc. (EEI), a nationwide company based in Dallas, Texas, that specializes in helping educational facilities operate more efficiently, especially with no- or low-cost solutions such as behavioral changes within the community.



*Barbara Ossowski and Kevin Knowles have helped improve energy efficiency at Lake Stevens SD. Photo: Hayley Young Photography*

Lake Stevens School District comprises 11 schools and three support buildings for more than a million square feet of facility space. Ever tighter school budgets have forced cost-cutting in various departments. Facilities management is no exception. Considering the rising cost of energy, it is a logical place to spearhead action. And go into action is what the school district did.

Efficiency efforts have progressed to the point that the district was one of only four in Washington to earn the ENERGY STAR 20% Leader Award for reducing its energy consumption by more than 20% in 2011. Ongoing efforts will likely make them eligible for the 30% Leader Award this year, and then put them on target for Top Performer.

The push for energy efficiency began in earnest in 2005, when local utility Snohomish County PUD was promoting its conservation rebate program for energy-saving measures. The program was set up to provide up to 70% for the costs of energy-efficiency projects, depending on the level of savings.



*Lake Stevens SD installed a photovoltaic solar energy unit atop one of its schools.*

Also at that time, Barbara Ossowski, a high school science teacher, learned of the new position of Energy Education Specialist. A passionate advocate for energy efficiency, she believed it would be a good fit for her. Working with EEI to develop strategies for community education and outreach on energy issues, she routinely performs building audits or “walk-throughs” to determine where energy is being used inefficiently. She also works with Kevin Knowles and the facilities department to implement changes.

“I’m a building guy and focus on how my building operates most efficiently,” says Knowles. “Barb as an occupancy person cares about the balance of comfort and efficiency. It’s a good balance.”

He says Ossowski’s enthusiasm for EEI’s behavioral modification was a tough sell for her at the beginning, with school users resistant to her practical “turn it off” suggestions.

Working with EEI, Ossowski persisted in getting across the message of personal responsibility in energy savings by pub-

lishing cost-reduction numbers, rewarding good efficiency behavior, and generally promoting efficiency gains. “Without our partnership with EEI, we wouldn’t be where we are in terms of conservation and community responsibility,” she states.

Also in 2010, Knowles completed the Building Operator Certification (BOC) program, training that dovetailed nicely with the no-cost/low-cost approach championed by EEI. Although a 25-year veteran of facilities management, he says that “BOC Level 1 opened my eyes and was a great refresher course to get me back on track with overall building operations improvements.”

He especially enjoyed the opportunity to meet and exchange ideas with other building professionals. He plans on completing second-level certification in the near future.

Many diverse projects have been undertaken. One was a pool cover for the high school’s facility. The result? A simple pool cover used properly that saves \$56 a day, or over \$20,000 a year. In the same area,

they also installed a desert-air dehumidifier to replace an air handler installed in 1978.

Another project, for which Ossowski wrote the grant, was the installation of a photovoltaic solar array for Lake Stevens High School, a 4.4-megawatt structure that was fully funded by grants from the Bonneville Environmental Foundation and Snohomish County PUD’s Planet Power program. She explains that, “While the electricity it produces is small, it does contribute to the energy needs of the high school and demonstrates the district’s commitment to improving the environment.”

Energy efficiency isn’t static, and at Lake Stevens School District, this is a given. The common-sense approach of no-cost/low-cost, combined with efforts to keep capital project costs to a minimum and find energy savings, utility rebates and grant money is a winning strategy on which the school district continues to expand.