

In 2008, Puget Sound Energy's Custom Grants program supported a unique project involving the interaction of energy use and wastewater treatment. In Thurston County, Wash., where PSE provides both natural gas and electric service, the Budd Inlet Treatment Plant was flaring digester methane gas as a byproduct of its wastewater treatment processes and producing emissions the plant needed to minimize.

Based on audit results, PSE determined the best overall solution to the flaring digester gas was to utilize the availability of the gas with a combined, high-efficiency co-generation system. Installation of the co-generation system, which included a new gas treatment system, a reciprocating engine with a heat recovery unit, and two small natural gas boilers, would allow the gas to be used to produce energy and protect the environment by reducing resulting emissions. The system would also allow the on-site boiler plant to provide all of the heating required at the site as a "district heating" plant and eliminate the need to flare excess digester gas, greatly reducing the carbon dioxide emissions of the overall site.

For the purchase of the co-generation system, PSE's Custom Grants program provided \$1.7 million, the largest single grant ever issued by the Washington state utility. The PSE grant represented 70 percent of an estimated total project cost of \$2.4 million and was based on the projected energy savings of more than 2 million kWh per year. The energy savings will also result in a cost savings for the plant of more than \$116,000 in annual utility bills, an immediate benefit to county taxpayers.

PSE planned and executed the Custom Grant project in collaboration with the LOTT Alliance, a nonprofit corporation formed by the Cities of Lacey, Olympia, and Tumwater, and Thurston County that provides wastewater treatment and reclaimed water production services within those jurisdictions, and the Washington State Department of General Administration, an award-winning national leader for energy-savings performance contracting in public facilities. This collaboration of energy provider and public agencies is unprecedented in the Pacific Northwest and demonstrates PSE's commitment to developing energy solutions that are good for the customer, the community and the environment.

In 2008, PSE's Custom Grant program provided more than \$18 million in conservation and energy efficiency funding to support 650 projects with businesses and organizations in the utility's service area. Combined savings reached nearly 105 million kWh of electricity and 1.9 million therms of natural gas, enough to provide electricity to 8,750 homes and natural gas to 2,300 homes for a year.