Salem Smart Power Project
Piloting smart grid technologies for greener, more efficient, more reliable power

The Salem Smart Power Center forms the hub of one of the most advanced electrical systems in the nation. A partner in the five-year Pacific Northwest Smart Grid Demonstration Project, PGE is testing how to store and better integrate variable renewable energy sources like solar and wind into the electrical grid. We're also testing several other smart technologies to create a highly reliable “micro-grid” serving about 500 PGE southeast Salem business and residential customers, including the State of Oregon and Kettle Brand.

Salem Smart Power Center
This 8,000-square-foot facility in southeast Salem offers an insider’s view of a working smart grid demonstration project. A visitor center offers educational exhibits about the project and the smart grid, and viewing windows into the large-scale battery storage area.

Thank you to our partners
This pilot program is a collaboration with Eaton and Enerdel and is part of the five-year, $178 million, Pacific Northwest Smart Grid Demonstration Project — which is rolling out unprecedented technologies across five Pacific NW states. Involving more than 60,000 metered customers, the project is designed to move our region and nation closer to a more efficient and effective electricity infrastructure.

What’s being tested
Energy storage
A bank of lithium-ion batteries — like the ones in your phone but much bigger — can store energy to run the micro-grid for up to 30 minutes, creating a back-up power supply in case of an interruption.

Back-up to the back-up
The batteries also work in concert with nearby standby generators owned by the state of Oregon, creating a high-reliability zone designed to reduce service interruptions for customers in the area.

Integrating renewables
Salem-based Kettle Brand, pioneer of the kettle-cooked potato chip and industry leader in sustainability, is connecting its 616-panel rooftop solar installation to the project to help test storage storage and bring solar energy into the grid when it’s needed most.

A power plant of efficiency
Like roadway traffic, energy usage has “rush hours” during certain times of the day and year. Through demand response technology, it’s possible to power these “energy rush hours” with the smart grid community rather than turning to new sources of energy.

To test demand response technologies, several business customers are volunteering to let PGE cycle their heating and cooling and other systems on and off throughout the day or to shift their use to off-peak periods. Several households have volunteered to have PGE cycle their water heaters on and off briefly throughout the day to reduce demand when usage and energy costs are high.

PGE will be the first Northwest utility to test its own Smart Power® software. The software will alert PGE to store energy when market prices are low and pull from battery storage, rather than buying power when prices are high. This will help ensure customers receive the most benefit from energy resources for the least cost.