

## Energy Trust of Oregon “Deep Dive” Discussion with Governor Kitzhaber’s Staff February 24, 2012

- Serves 1.5 million Oregon customers of PGE, Pacific Power, NW Natural and Cascade Natural Gas, and 60,000 NW Natural customers in Washington.
- Acquires all cost-effective energy efficiency to meet utility customer needs at the lowest possible cost.
- Spurs development of renewable energy for projects with a capacity less than 20 MW.
- Provides information, technical assistance, customer services and financial incentives to motivate action.
- Help for every customer type: residential, commercial, industrial, agriculture, public and nonprofit.
- A platform for state clean energy investment and implementation, environmental and climate initiatives and jobs and economic development activities.

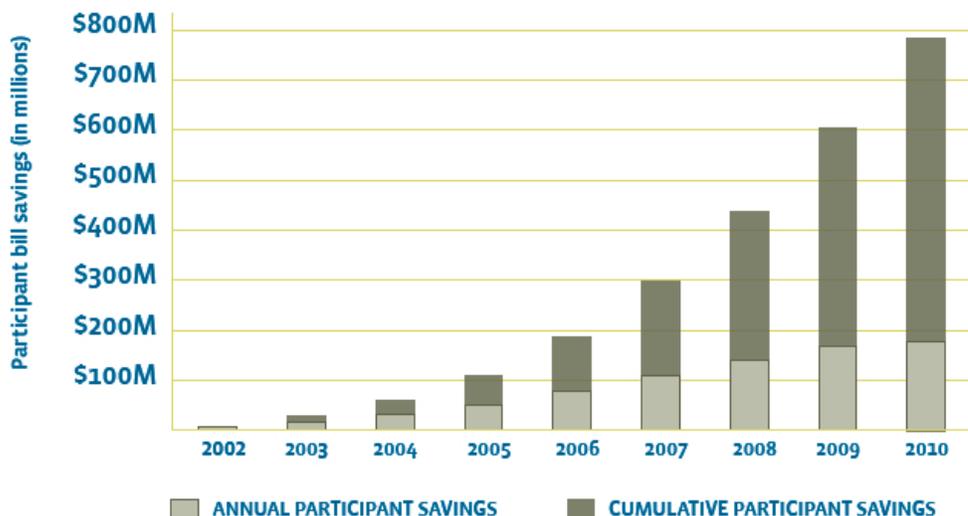
### Philosophy and Approach:

- Invest in private businesses to assist and serve customers throughout the state.
- Collaborate with utilities and others to comprehensively address opportunities across fuels.
- Employ a diverse portfolio of strategies to meet goals, ranging from no and low cost approaches, behavior change, emerging technologies and large scale capital investments to regional market transformation.
- Promote a cycle of innovation using pilot programs to test strategies before going to scale.
- Conduct rigorous evaluations to validate results and strengthen program design and delivery.

### Through 2010, Energy Trust investments have:

- Saved enough energy to power all homes in Portland for one year (377 average megawatts) and heat all homes in Pendleton for five years (17.8 million annual therms).
- Served more than 420,000 Oregon homes, businesses, industries and other sites across the state
- Reduced the costs to serve Oregon ratepayers by an estimated \$1.8 billion.
- Saved nearly \$800 million on program participant energy bills.
- Created an estimated 2,500 jobs and spurred \$90 million in wages and business income.
- Supported 2,100 local businesses providing a full spectrum of energy efficiency and renewable energy services and representing a significant portion of Oregon’s green jobs economy.
- Consistently exceeded Northwest Power Planning and Conservation Council goals for Oregon.

**Energy Trust Program Participant Bill Savings (2002-2010)**



### Established Programs at Scale:

- *Residential*  
380,000 households Home Energy Reviews, weatherization, heating and water heating, products, lighting, solar, refrigerator recycling, Home Performance, Clean Energy Works Oregon, New Homes and Energy Performance Score (EPS), Personal Energy Reports through OPower.
- *Commercial/Multifamily*  
47,000 sites Technical studies and analyses, lighting, heating, ventilating and air conditioning (HVAC), water heating, weatherization, solar, operations and maintenance, new building design.
- *Schools/Public Buildings*  
450 sites Building audits, lighting, HVAC, water heating, weatherization, solar, operations and maintenance, new building design.
- *Industrial/Agriculture*  
1,500 sites Technical studies and analyses, equipment and process upgrades, strategic energy management.
- *Renewable energy*  
2,700 sites Solar, biomass, small wind, small hydro, geothermal.

### Innovative Strategies:

Energy Trust consistently innovates to diversify strategies, using research, evaluation results and new technologies and approaches to penetrate markets and reach different participants. A few examples:

- **Behavior change strategies** with documented results: Strategic Energy Management for industrial and commercial customers; residential Home Energy Reports through OPower; Operations and Maintenance training for building managers; and an MIT collaboration on behavior science research
- **EEAST on-bill financing pilots**, including Clean Energy Works Portland/Oregon, with more than 1,000 homes completed since 2009.
- **Energy Performance Score (EPS)** used for 1,800 new homes since 2009, equal to 25% market share; EPS pilot underway for existing homes.
- **Neighborhood and community scale** “Solarize” and weatherization strategies using volume pricing leading to ~700 installed solar systems.
- **Limited time offers** and varied customer engagement approaches, including bonus incentives to retain and attract projects during state tax credit transitions.
- **Path to Net Zero** track to advance new home and building design.
- **Data center design** to reduce energy-intensive server usage.
- **OSU Combined Heat and Power** generates half of their annual electricity needs (6.5 MW capacity).

### Supporting Long-term Regional Market Transformation with the NW Energy Efficiency Alliance:

Changing markets by increasing availability and quality and by lowering costs of new efficient electric technologies in regional markets:

- Major initiatives: lighting, energy efficient televisions, industrial energy management, heat pump water heaters, ductless heat pumps, and other emerging technologies.
- Provides a regional framework for coordinated investment and best practice exchange and learning.

### Opportunities:

- **Emerging technology** – research, development and testing investments for both electric and gas end-use equipment; Smart Grid and more behavioral approaches and controls; includes technical standards and specifications as well as evaluation for performance in the Pacific Northwest.
- **Technical tool development and implementation** – needed to test financing, especially to enable deeper energy efficiency investments for public sector and deep commercial retrofit. Widespread use of financing requires transparent, low cost, reliable processes to predict and validate savings.
- **Expanded collaboration** – including with public utilities to serve customers in all parts of Oregon.
- **New resource development** – including biomass and combined heat and power applications.
- **Broader scope and purpose** – comprehensive statewide programs for all fuels and customer types and acknowledging corresponding benefits of clean energy acquisition to reduce carbon, conserve water, improve transportation and spur economic development and wealth creation.