



## Energy Trust of Oregon – Production Efficiency Program

Presented to consulting engineers of water & wastewater projects

September 18, 2012



# *Energy Trust of Oregon*

## *Production Efficiency program*

### **Our Mission: Resource Acquisition**

Procure cost-effective energy savings on behalf of Oregon ratepayers served by PGE, Pacific Power, Northwest Natural Gas and Cascade Natural Gas.

### **2012 Production Efficiency Budget and Goals**

\$19 million cash incentives for electric

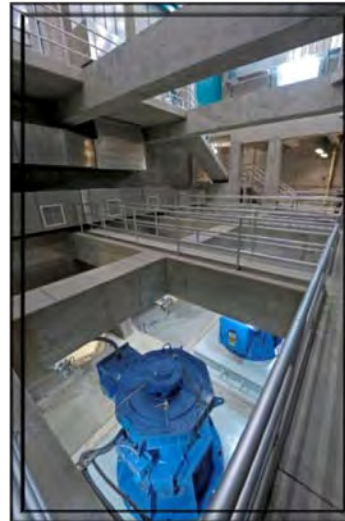
\$2 million cash incentives for gas

Savings Goal: 160 million kWh and 1,250,000 therms

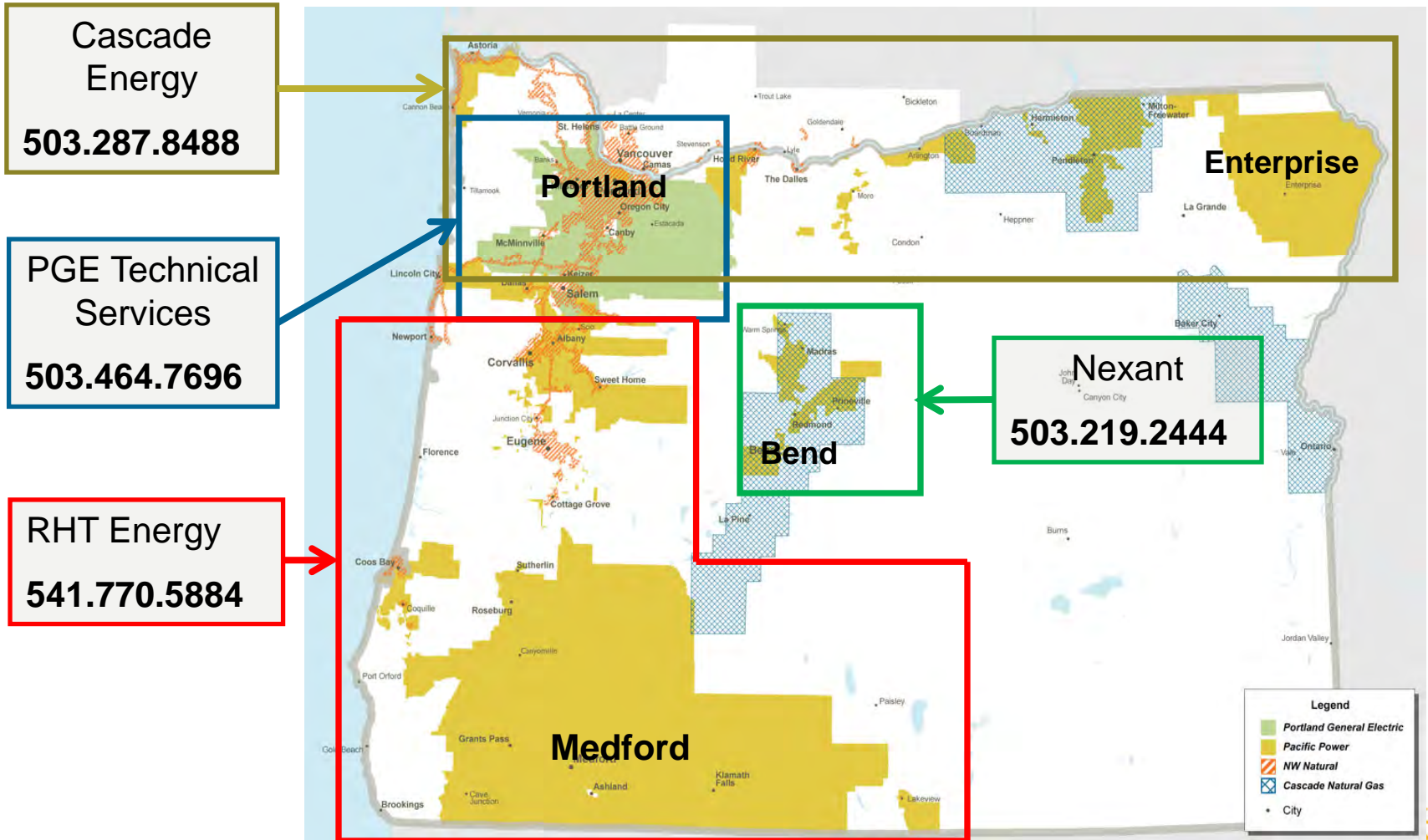
# *Energy Efficiency for Industry*

## We serve:

- Water and Wastewater
- Industrial Manufacturing
- Agriculture: Nurseries, Dairies, Irrigators



# Service Territory / PDC's





# *Source of Savings – Capital Improvements*

## **Custom Capital**

- Includes major retrofits, process reconfigurations, replacement equipment, new construction, facility expansions, etc.

## **Streamlined Calculated Measures**

- Provide Trade Allies (vendors) with training, calculation tools, collateral, simplified incentive process
- Up-to-date listing is always available on the Energy Trust web site at: <http://energytrust.org/industrial-and-ag/incentives/manufacturing-and-small-industrial/>



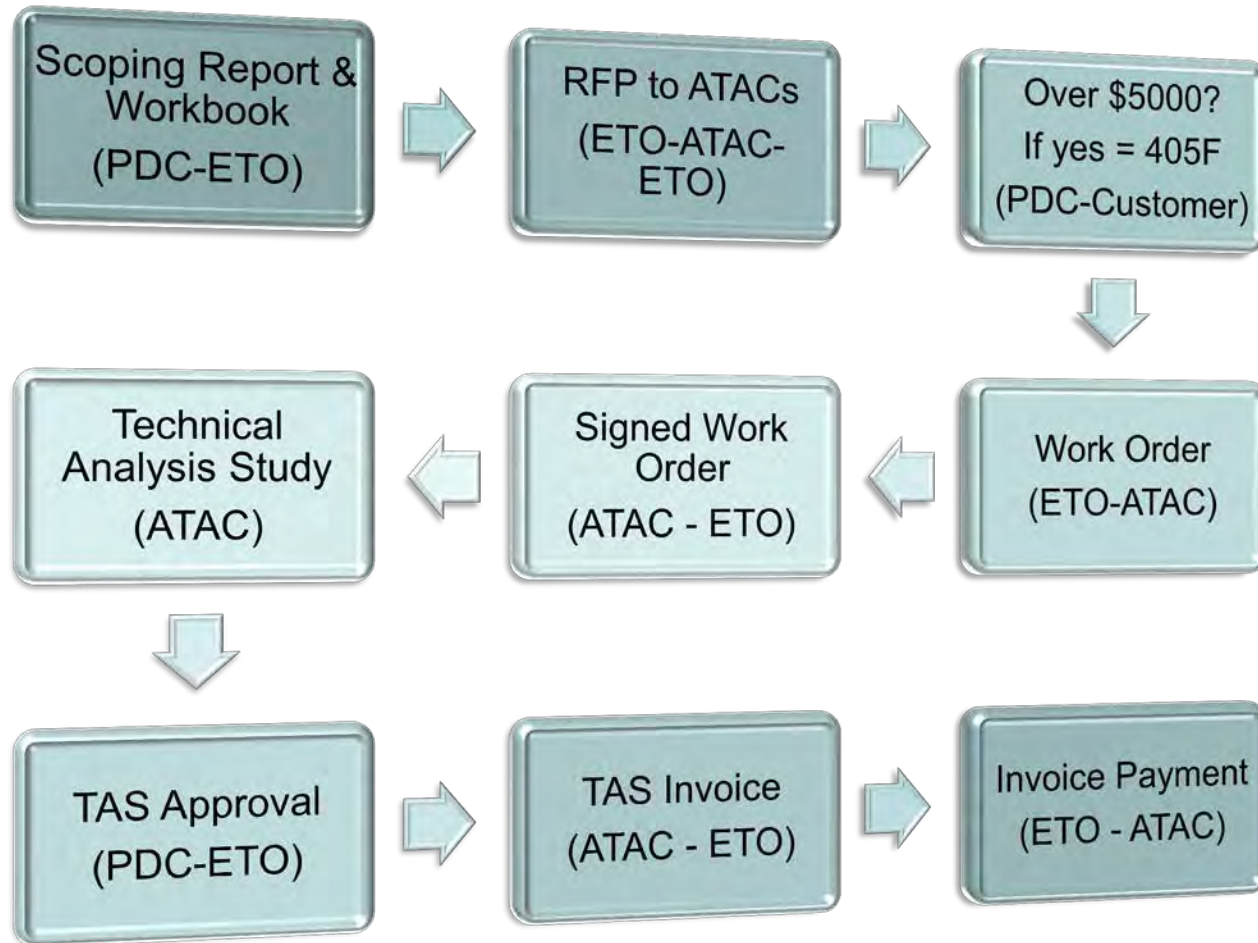
# *Source of Savings – Behavioral Changes*

## **Custom O&M**

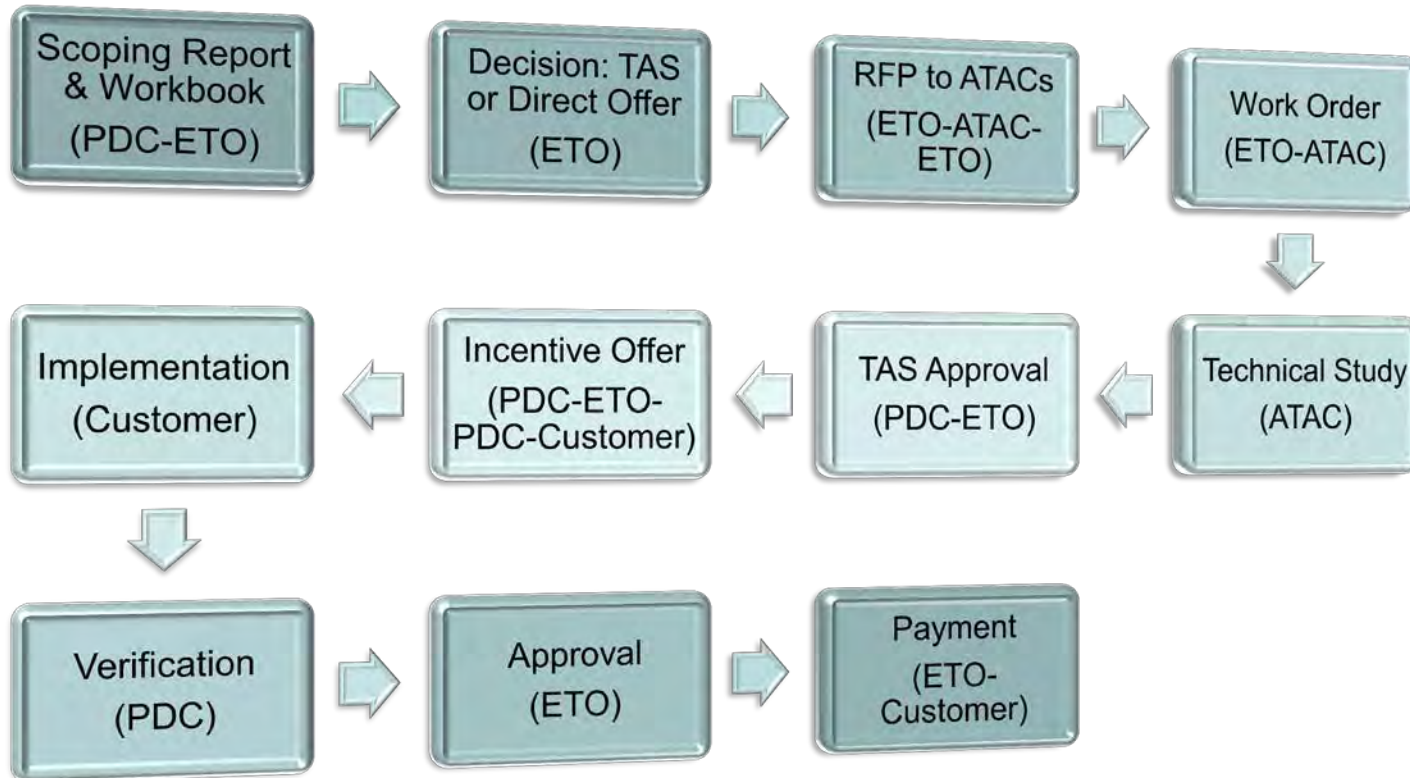
- Operational improvements, equipment power-off scheduling, pressurized system leak repairs, system balancing, sequencing, operational tuning, flow control changes, etc.



# ATAC Technical Study Process Flow



# Industrial Custom Project Process Flow







# *Energy Trust - Custom Track Incentives*

## **Water / Wastewater**

Municipalities and special districts across Oregon can realize significant energy savings by improving the energy performance of water and wastewater treatment facilities.

Based on the results of a Technical Analysis Study, Energy Trust will calculate a custom incentive for a project, with the following guidelines:

For custom capital projects, Energy Trust will pay up to **\$0.32**/annual kWh saved (\$2.00/annual therm saved) up to **50%** of eligible project costs.

For custom O&M projects, Energy Trust will pay **\$0.08**/annual kWh saved (\$0.40/annual therm saved) up to **50%** of eligible project cost\*.

\* NOTE: (up to **90%** of eligible O&M project cost if completed within 90-days of the incentive offer date)



# Simple Pumping Project Example

- **Opportunity**

- ✓ Replace existing 100hp Johnston vertical turbine pump & motor (poor wire-to-water efficiency of only 59.2%) with new Floway vertical 3-stage pump (77.9% wire-to-water efficiency)

- **Savings**

- ✓ Estimated & Achieved: 70,792 kWh/year (\$5175 per year)

- **Incentives**

- ✓ \$ 17,924 cash incentive plus 100% of Technical Analysis Study

- **Cost**

- ✓ Eligible Implemented Project Cost: \$35,845
- ✓ Incentive = 50%
- ✓ Customer out-of-pocket cost = \$17,924

# Eligible Costs / Invoices

DESCRIPTION	QTY.	UNIT PRICE	AMOUNT
One (1) Floway, Model 14DKL, 3-stage vertical turbine bowl assembly to include: - Motor: 100 HP, 1770 RPM, 3PH/60HZ/460 VAC - Fabricated discharge head - Standard Carboline #635 on bowl assembly & discharge head - Standard Carboline #3359 exterior of discharge head	1	25,209.00	25,209.00
Scotchkote fusion bonded epoxy coating	1	1,170.00	1,170.00
Standard factory non-witnessed bowl test	1	1,338.00	1,338.00
John Crane Mechanical Seal	1	1,775.00	1,775.00
Solid Shaft Motor	1	282.00	282.00
Startup/Installation Assistance	1	950.00	950.00

Plus in-house labor (base hourly pay rates)

\*note that only energy efficiency measure costs are eligible for incentives



## *Questions / Comments*

**Energy Trust of Oregon, Inc.**

[www.EnergyTrust.org](http://www.EnergyTrust.org)

**Ray Hawksley** - Sr. Industrial Technical Manager

[ray.hawksley@energytrust.org](mailto:ray.hawksley@energytrust.org)

503-445-2941

***Thank you for attending!***