

# Seattle Public Utilities Water Smart Technology

## Water Conservation Program for Industrial/Commercial/Industrial Facilities

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Seattle  
 Public  
Utilities



# **Saving Water Partnership** **1% Program Commitment**

Savings by 2010:

*14 million gallons per day*

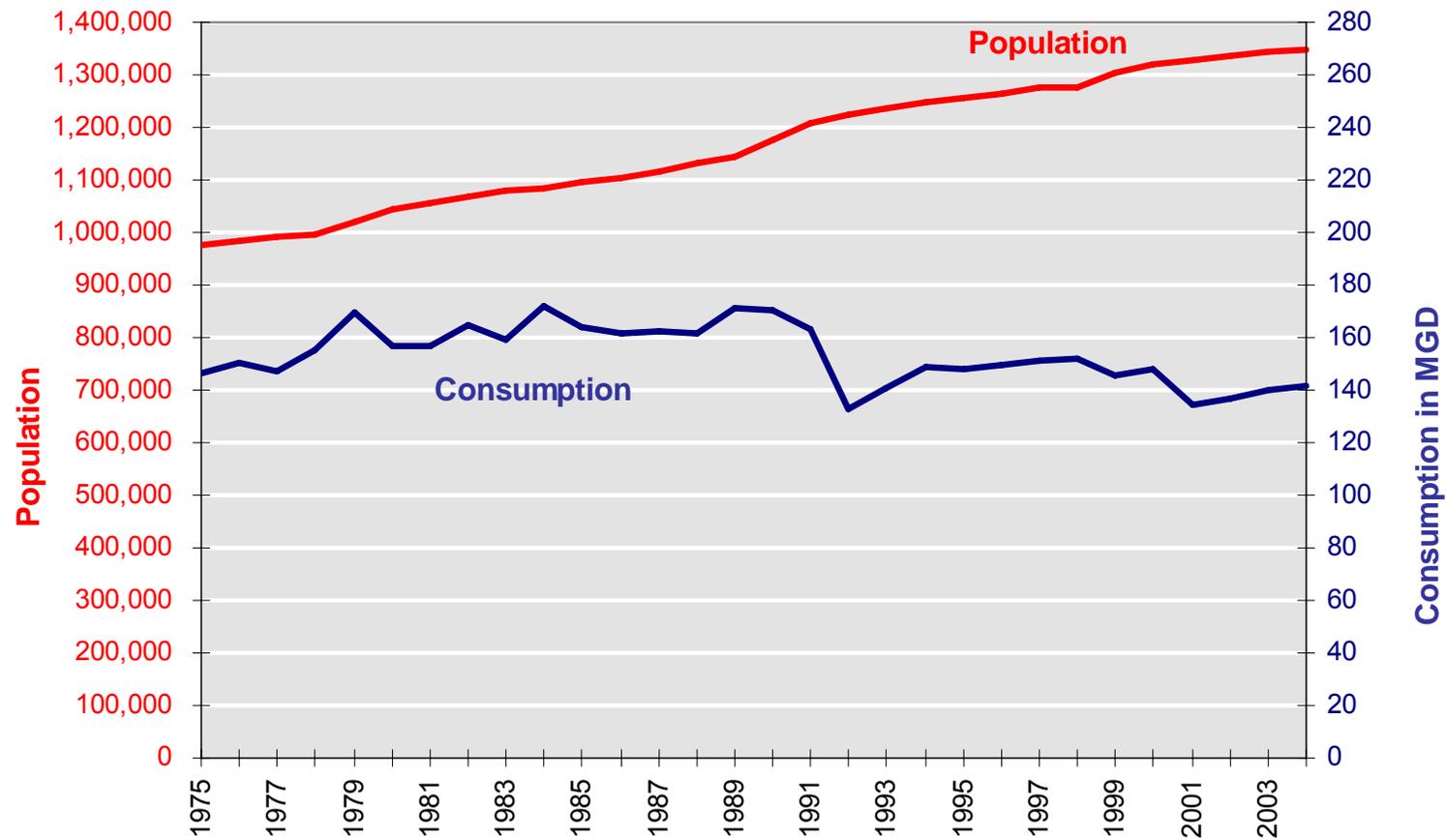
Cost by 2010:

*\$39 million*

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## Growth in Population and Water Consumption Seattle Regional Water System: 1975-2004



**Saving Water Partnership**

Seattle and Participating Area Water Utilities

# NOW ORBITING

- Cost-effective
- Custom incentives – maximum 50% of project cost
- All proven technology
- Concentrate on peak-season savings
- Vendor driven



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*Saving Water Partnership*

*Seattle and Participating Area Water Utilities*

# Types of Programs

- *Rebates* provide a pre-determined amount.
- *Financial Incentives* provide a percent of total cost.
- *Direct Install* covers all materials and labor. No cost to the customer.
- *Free* is materials only. Installation by customer.
- *New Construction* rebates and incentives.
- [www.savingwater.org](http://www.savingwater.org)



**New Sloan Dual  
Flush Valve**

**(left)**

**and Crown Valve  
(above)**

# Other New Technologies

- Wireless electronic faucets
- HET toilets
- Cooling Tower Treatments
- Below code showerheads
- Irrigation Controllers
- .5 or less GPM Urinals
- Lifetime water free urinal cartridges

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# Landscape/Irrigation

- Average in-ground irrigation system:
  - Waste 50% of water used
    - Water when raining – no rain sensor
    - Utilize inappropriate scheduling
    - Not adjusted for weather and changing plant needs



# Landscape/Irrigation

- Rebates:
  - \$100 rain sensor rebate
  - \$200 - \$400 Weather-based controller rebate
  - \$\$\$ for additional irrigation system upgrades that save water.
    - Drip irrigation
    - Pressure regulating
    - High distribution uniformity heads

# Seattle Public Utilities Resource Venture 2007 Commercial Outreach Program

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- Technical Services for Business to Reduce Utility Costs
- Concentrated Expertise Available with One Phone Call (206) 343-8505
- [www.resourceventure.org](http://www.resourceventure.org)

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 Venture



# Commercial & Industrial Conservation Resources Division



## Medium & Large Businesses Energy Conservation

### Services Overview:

- ★ Financial Incentives
- ★ Technical Assistance
  - ★ Facility Assessment; Commissioning; Sustainable Building; Climate Wise; Lighting Design Lab
- ★ Energy Analysis Assistance
- ★ Commissioning



# Financial Incentives

## Simple Rebates

- ★ Flat per-unit funding amount for:
  - ★ Exit Signs
  - ★ Occupancy Sensors
  - ★ Vending Miser





# Financial Incentives

## Standard Incentives

- ★ Funding for installation of standard energy efficient equipment
  - ★ Lighting
  - ★ HVAC
  - ★ Variable Speed Drives
  - ★ Motors & Drives



# Financial Incentives

## Custom Incentives

- ★ Funding for non-standard energy conservation measures
  - ★ CO2 and CO controlled ventilation
  - ★ Compressors
  - ★ Fume Hoods
  - ★ Refrigeration
  - ★ Cooling Towers
  - ★ Transformers





# Project Development Process

1. Submit application
2. Execute incentive contract
3. Install measure according to specs.
4. Inspection
5. Verify energy savings
6. Submit payment package



**Thank You!**

**Commercial & Industrial  
Conservation Resources Division**





***PUGET SOUND ENERGY***

*The Energy To Do Great Things*

## **Business Energy Management Program Overview**

David Landers  
Sr. Energy Management Engineer

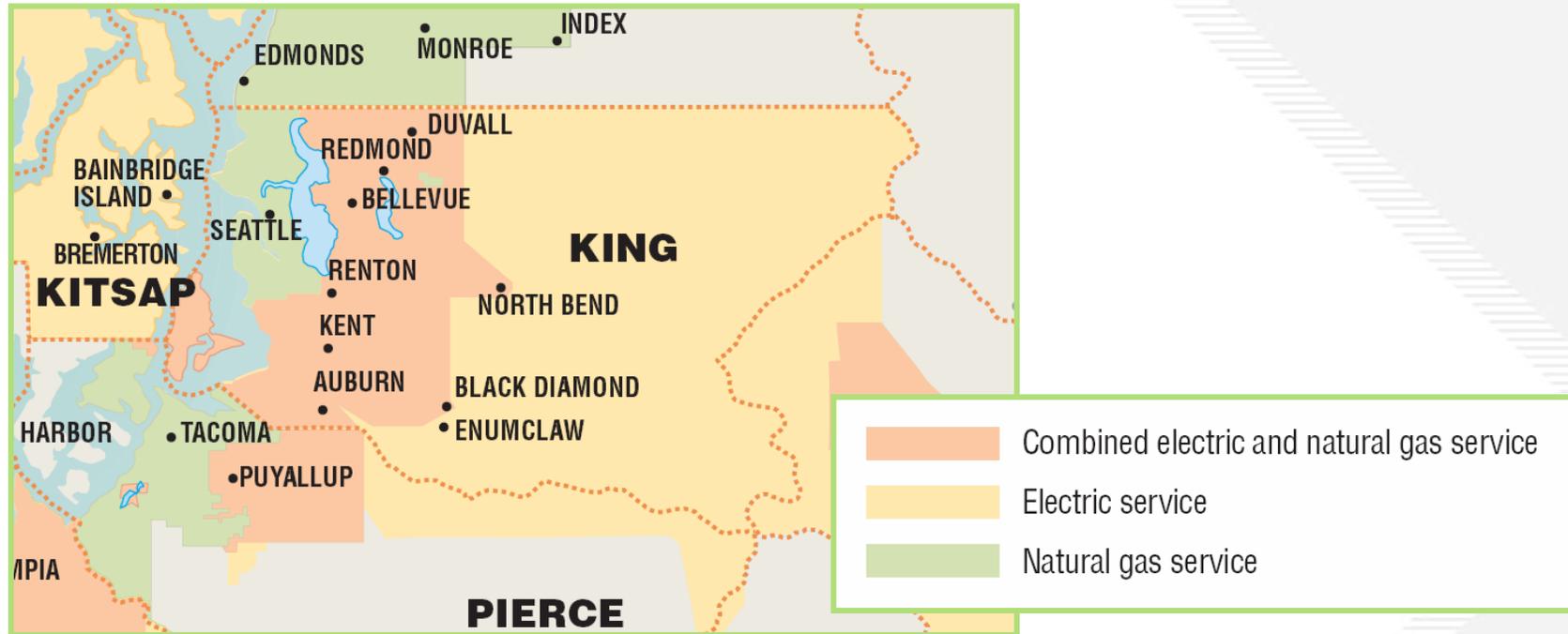
# Frequently Asked Questions

- Why offer incentives?
  - ◆ Offset costs PSE would otherwise incur
  - ◆ Promote market transformation
- What is the source of funding?
  - ◆ Electric Conservation Service Rider
    - ◆  $\approx 0.14\text{¢}$  per kWh
  - ◆ Natural Gas Conservation Service Tracker
    - ◆  $\approx 0.49\text{¢}$  per therm

# Frequently Asked Questions (cont.)

- How much funding is available?
  - ◆ 2006-07 Electric Programs (BEM)
    - ◆ ≈ \$29 million
    - ◆ 190 million kWh savings
  - ◆ 2006-07 Natural Gas Programs (BEM)
    - ◆ ≈ \$3 million
    - ◆ 2.4 million therms savings
- What programs are available?
  - ◆ Prescriptive Rebates
  - ◆ Custom Grants
  - ◆ New Construction Whole Building Approach
  - ◆ Resource Conservation Manager (RCM)

# Program Eligibility



- Electric Incentive – Must be a PSE electric customer
- Gas Incentive – Must be a PSE natural gas customer

# Prescriptive Rebates

*Apply to retrofits and new construction*

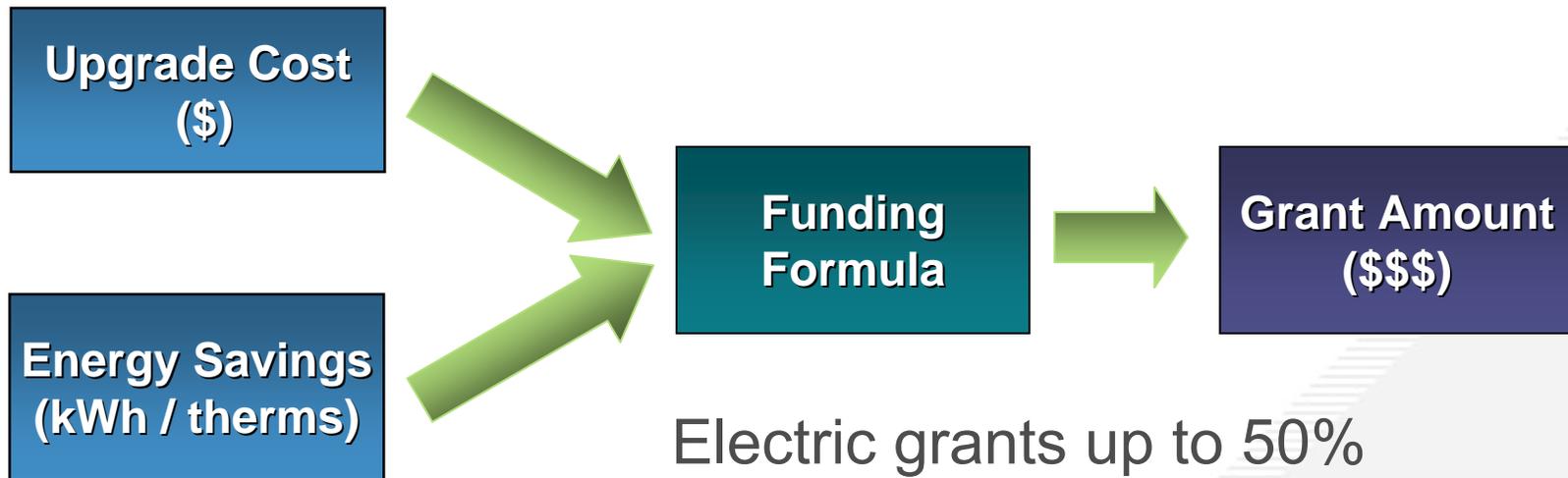
- “Self service” incentives
- Known funding amounts for specific upgrades
  - ◆ Examples:
    - ◆ \$30/ton High-Efficiency HVAC (units > 5 tons)
    - ◆ \$50/driven HP on fan variable speed drives
    - ◆ \$35/LED illuminated exit sign
    - ◆ \$60/occupancy sensor (> 200 watts controlled)
- Pre-authorization generally required



# Custom Grants

*Apply to retrofits and new construction*

- Work with a PSE Energy Management Engineer
- Incentives calculated on case-by-case basis
- Pre-authorization always required



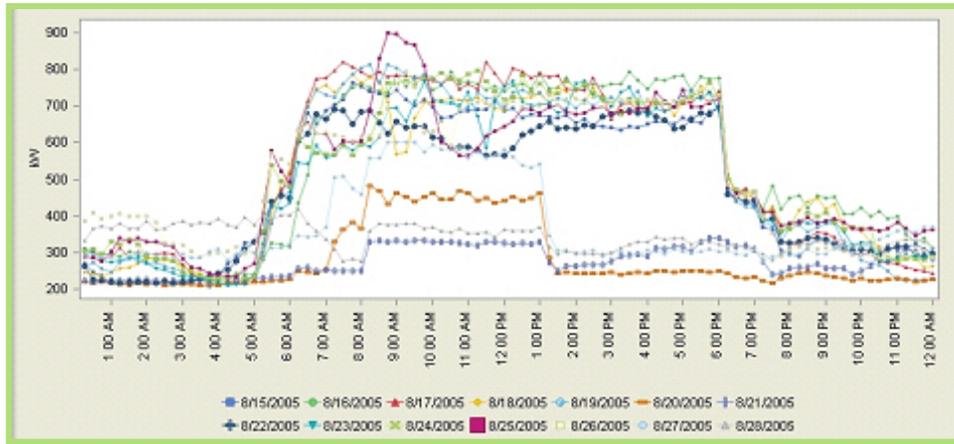
Electric grants up to 50%  
Natural gas grants up to 70%

# New Construction Whole Building Approach

- Improve efficiency beyond code in new facilities
- Incentives up to \$1.20 / sqft
- Requires building energy simulation
- Applicable to major remodels



# Resource Conservation Manager



- Funding and assistance for program setup
- Resource accounting software and assistance
- 10-15% reduction in energy and resource use

# For More Information

- www.pse.com
- 1-800-562-1482
- Please take a brochure

