



PSE Energy Efficiency Custom Incentives program for Wastewater/Water treatment Customers



Andreas Winardi

Sr Energy Management Engineer

Industrial Program

Presented at Wastewater/Water treatment Cohort of Washington
June 13, 2012



About Puget Sound Energy

- Washington state's largest investor owned utility
- More than 1 million electric customers
- More than 750,000 natural gas customers
- 6,000+ square mile service area across 11 counties
- 2,800 employees
- 140 employees in energy efficiency

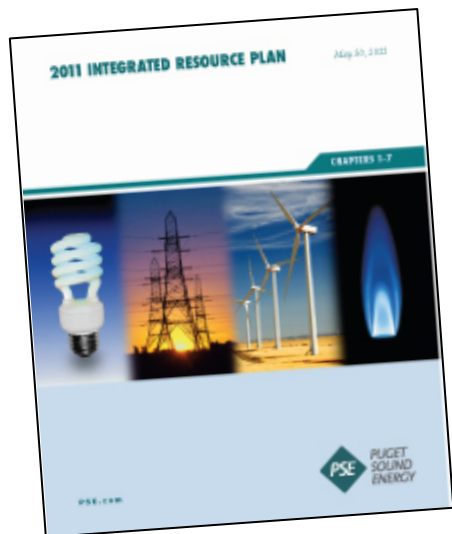


■ Combined electric and natural gas service
■ Electric service
■ Natural gas service

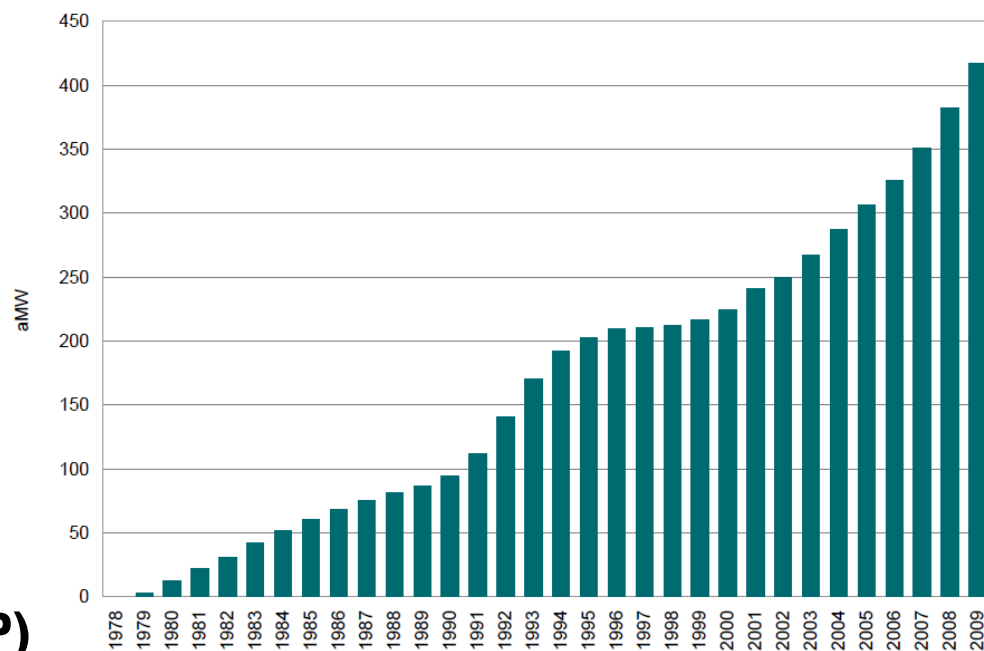




Why offer energy efficiency programs?



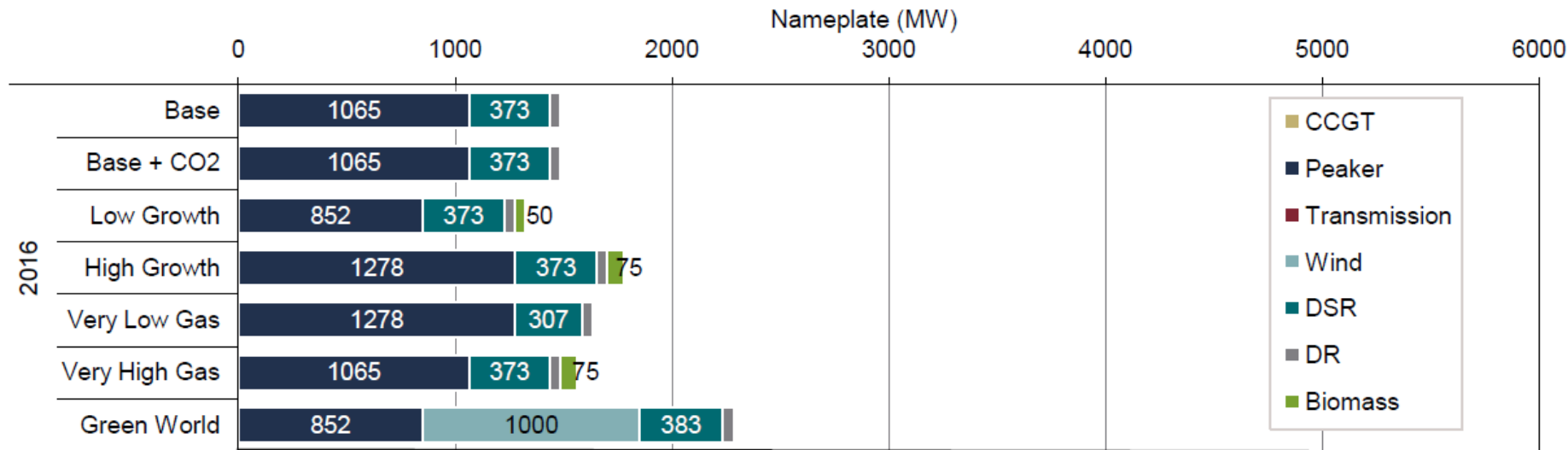
Cumulative Electric Energy Savings from DSR, 1978 to 2009



Integrated Resource Plan (IRP)

- Strategic road map for securing reliable and cost-effective energy resources
- Thorough, objective assessment of benefits, costs and risks associated with each energy-supply option, including energy efficiency
- Analyzes region's population and economic trends, including PSE customers' electricity and natural gas needs two decades into the future

Resource builds by scenario (5 year outlook)



Scenarios

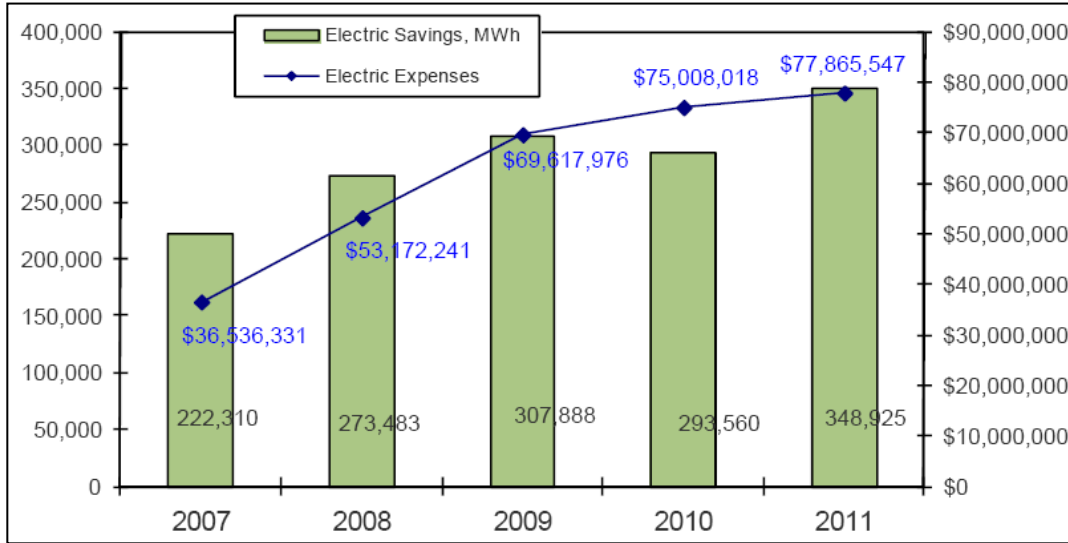
Base Case
 Low Growth
 High Growth
 Very Low Gas Prices
 Very High Gas Prices
 Base + CO2
 Green World

Sensitivities

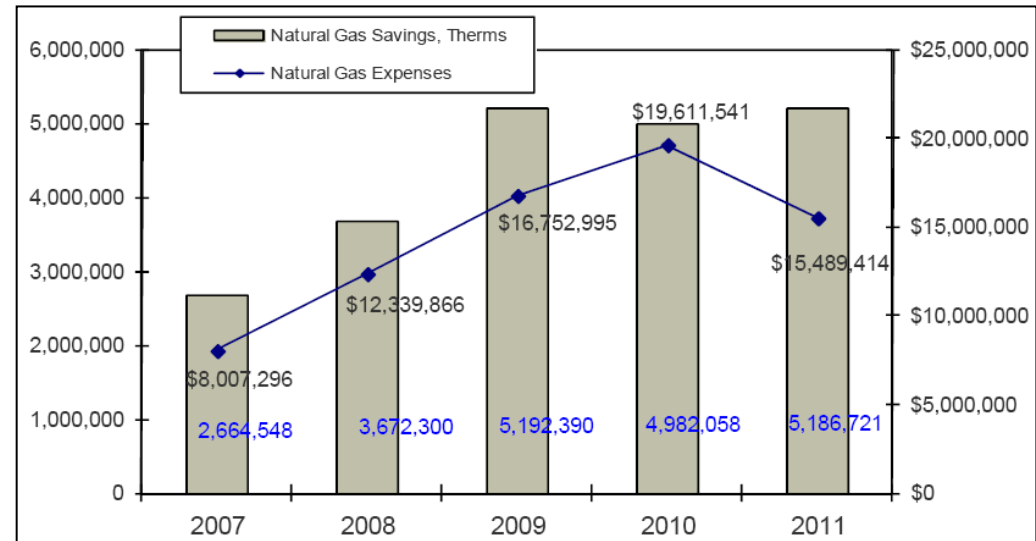
No Northwest Coal
 No Peakers
 Thermal Mix
 Fixed (firm) gas transport cost for peakers
 Renewable tax credit extends to 2013
 Renewable tax credit extends to 2016
 Renewable tax credit extends to 2020
 Renewable tax credit extends to 2031
 DSR Ramp Rates
 Plug-in vehicles

Energy efficiency (DSR) continues to be a significant resource moving forward

PSE Energy Efficiency 5-Year Trends



2012 Budget & Goals	
Electric	336,600 MWh
	\$ 98,476,000
Natural Gas	4,836,500 therms
	\$ 13,450,000





Overview of Business Energy Management Programs

Rebates

Standardized prescriptive incentives



Custom Grants

Incentives for efficiency upgrades



Programs

Low-cost & operational improvements



Services & Tools

Empower customers

My PSE Account

Summary: Current amount \$7,023.04 due 09-21-09. Recent Payments: 07-27-2009 \$360.48, 08-27-2009 \$672.41, 08-26-2009 \$890.53, 04-27-2009 \$805.28.

How can I lower my company's energy cost?

- Online Audit
- Analysis Bill
- Rebate & Grants
- Green Power

How does your business use energy?

Electric Costs 8/8/2009 to 9/9/2009

Heating	\$693
Ventilation	\$478
Cooling	\$574
Inside Lighting	\$3,166
Outside Lighting	\$157
Water Heating	\$293
Office	\$242
Miscellaneous	\$171

When does your business use energy?

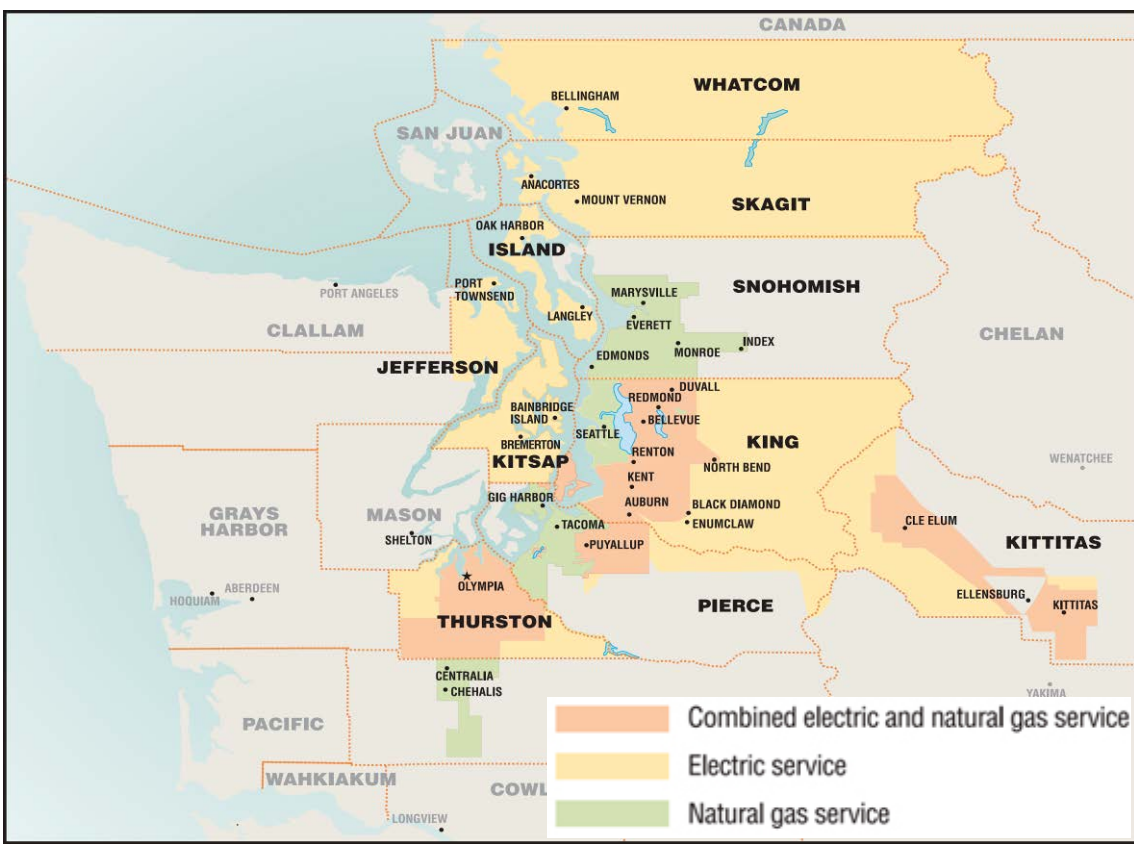
Average Energy by Day-of-Week

Day	Total (kWh)
Sun	~1,000
Mon	~2,500
Tue	~2,500
Wed	~2,500
Thu	~2,500
Fri	~2,500
Sat	~1,000

Meter: Electric 2 000000000



Eligibility – You must be saving a PSE resource



- Electric Incentives – Must be a non-residential PSE electric customer
- Gas Incentives – Must be a non-residential PSE natural gas customer

Natural gas transportation customers are not eligible for conservation incentives



Commercial Rebates

PSE Offers Over 100 Prescriptive Rebates for Energy Efficiency Measures

- Small business lighting
- Commercial lighting
- Commercial high-efficiency HVAC
- Portable classroom controls
- Electronically-commutated motors
- Green motor rewind
- Premium HVAC service
- Variable speed drives
- Commercial kitchen equipment
- LED traffic signals

PSE PUGET SOUND ENERGY
The Energy To Do Great Things

**HVAC VARIABLE SPEED DRIVE
REBATE APPLICATION
FACILITY INFORMATION**

FACILITY NAME		PSE ELECTRIC ACCOUNT NO.	
SERVICE ADDRESS		CITY, STATE, ZIP	
FACILITY CONTACT NAME			
PHONE		FAX	E-MAIL

VARIABLE SPEED DRIVES	DESCRIPTION	DRIVEN HORSEPOWER	NUMBER OF UNITS	REBATE PER HORSEPOWER	TOTAL REBATE AMOUNT
FAN MOTORS					
				\$ 100.00	\$
				\$ 100.00	\$
				\$ 100.00	\$
				\$ 100.00	\$
				\$ 100.00	\$
PUMP MOTORS – not irrigation or well pumps					
				\$ 100.00	\$
				\$ 100.00	\$
				\$ 100.00	\$
				\$ 100.00	\$
				\$ 100.00	\$
Total Rebate Due:					\$

BRIEFLY DESCRIBE SYSTEM, APPLICATION AND OPERATION

ESTIMATED ANNUAL OPERATING HOURS: _____ ESTIMATED INSTALLATION DATE: _____

I understand that PSE is providing funding towards the cost of variable speed drives. PSE is not responsible for equipment performance or energy savings, and does not provide any warranties or guarantees, expressed or implied.

CUSTOMER SIGNATURE: _____ DATE: _____

FEDERAL TAX ID NO: _____ NAME ON REBATE CHECK (PSE): _____

MAILING ADDRESS: _____ CITY, STATE, ZIP: _____

Authorization to proceed will be mailed to you by PSE.

FOR PRE-AUTHORIZATION BY PSE, MAIL SIGNED FORM TO: **Puguet Sound Energy
Energy Efficiency Services
Commercial Rebate Program
PO Box 97034, EST-10W
Bellevue, WA 98009-9734**

FOR PAYMENT: **Send approved invoice to Puguet Sound Energy.**

PSE reserves the right to inspect before payment.

3079 06/10 PAGE 1 OF 1

SAVE FORM CLEAR FORM





Custom Grants

Funding for measures that provide verifiable energy savings

Electric measures

- Lighting: **\$.20/kWh**, up to **50 percent** of measure cost*
- Non-lighting: **\$.30/kWh**, up to **70 percent** of measure cost*

Natural gas measures

- All Measures: **\$5/therm**, up to **70 percent** of measure cost*

**Subject to PSE cost-effectiveness criteria.*





Custom Grants

Typical Wastewater/Water Grant Measures

- Lighting retrofits
- Central control systems
- Equipment upgrades
 - Boilers
 - Chillers
 - Heat Recovery
- Turbo Blowers
 - Aeration & Agitation Blowers
 - Controls
 - VFDs
- Compressed air system improvements
- Pumping System Improvement





Custom Grants – Getting Started

Complete a single-page application before you start work

Customer information & signature



General project information



Preparer information



Questions?
 Call a PSE Energy Advisor
 1-800-562-1482

PUGET SOUND ENERGY
The Energy To Do Great Things

**ENERGY-EFFICIENT RETROFITS
 CUSTOM GRANT APPLICATION
 FACILITY INFORMATION**

I. PSE CUSTOMER INFORMATION

BUSINESS NAME		PSE ACCOUNT NO.	
SERVICE ADDRESS	CITY	ZIP	
PRIMARY CONTACT PERSON		TITLE	
MAILING ADDRESS (if different from above)	CITY	ZIP	
PHONE	FAX	E-MAIL	
PSE CUSTOMER SIGNATURE		DATE	

II. PROJECT INFORMATION

PROJECT DESCRIPTION*

FACILITY FLOOR AREA (sq. Ft.)	AFFECTED FLOOR AREA (sq. Ft.)	
ESTIMATED ENERGY SAVINGS* <small>SAVINGS (kBWh or therms/yr.)</small>	AVERAGE DEMAND REDUCTION (kW)	
ESTIMATED INSTALLED COST	ESTIMATED START DATE	ESTIMATED COMPLETION DATE

*Attach project details, equipment specifications, calculations and/or simulations based on standard engineering practices used to estimate energy savings, demand savings and cost estimates.

III. APPLICATION PREPARER (if not completed by customer)

APPLICATION SUBMITTED BY (Firm name)

CONTACT PERSON		TITLE	
MAILING ADDRESS	CITY, STATE	ZIP	
PHONE	FAX	E-MAIL	

Note: Natural gas customers are required to fill out form 3719 for equipment information.

Please submit completed, original signed application by mail to PSE Energy Management Engineer for the county or area.


Or mail to Puget Sound Energy
 Energy Efficiency Services
 P.O. Box 97034, EST-10W
 Bellevue, WA 98009-0868

FOR PSE USE ONLY

RECEIVED BY PSE REPRESENTATIVE (print name)	
SIGNATURE	DATE

4524 04/10
PAGE 1 OF 1

Custom Grants - Terms and Conditions



INFORMATION ONLY

CONSERVATION GRANT

Agreement No. C-09565
Project No. 064-1365
Conservation Schedule E259

This AGREEMENT is made this _____ day of _____, 20____ by and between
PUGET SOUND ENERGY and Skywalker Basket Weaving ("Participant").

RECITALS

A. Under Puget Sound Energy's Electric Schedule 83 and Gas Schedule 183, as currently in effect and on file with the Washington Utilities and Transportation Commission, Puget Sound Energy offers grants for electricity and natural gas conservation measures installed or implemented at facilities that receive electric or natural gas service from Puget Sound Energy.

B. Participant intends to install or implement conservation measures and is requesting a grant from Puget Sound Energy under its filed Electric Schedule 83 and/or Gas Schedule 183 tariffs.

AGREEMENTS

Puget Sound Energy and Participant agree as follows:


- Premises.** Participant will install or implement the conservation measures listed in paragraph 2 ("Conservation Measures") at the facilities located at **1624F SOUTH CENTER PKWY TUKWILA, WA 98188** (the "Premises"). Participant represents either (a) that it is the owner or contract purchaser or otherwise has the lawful authority to make the statements herein on behalf of the owner or contract purchaser of the Premises, or (b) that it is the lawful tenant of the Premises and that it has obtained written authorization from the owner or contract purchaser of the Premises.
- Conservation Measures.** Participant represents that it will purchase equipment or materials or has entered into an agreement or will enter into an agreement with a contractor or contractors (the "Contractor") for the purchase and installation or implementation at the Premises of the Conservation Measures, which may be detailed in *Attachment D: Attachment to Conservation Grant*, at the indicated costs, summarized below.

Conservation Measures	Measure Life	Total Cost of Conservation Measures	Eligible Conservation Grant
1. Lighting	5	\$9,058.00	\$4,394.00
TOTAL (includes sales tax)		\$9,058.00	\$4,394.00

Participant represents that the total cost of the Conservation Measures, if identified above, is the full amount of its obligation, after adjustment for any discounts, credits or non-PSE incentives offered.

- Grant.** Subject to Puget Sound Energy acceptance, Puget Sound Energy will grant the Participant, after installation of the Conservation Measures, an amount equal to the Eligible Electric Schedule 83 and Gas Schedule 183 Conservation Grant (the "Grant") as identified above, provided, however, that such Conservation Measures must be installed, and Grant paid within 24 months or less of the signing of this Conservation Grant Agreement. If for any reason the cost of the Conservation Measures is actually less than shown above, Puget Sound Energy may decrease pro-rata the amount of the Grant. Participant shall be responsible for paying any amount in excess of the amount of the Grant.


4386 1008 Page 1 of 3
C-09565



CONSERVATION GRANT

- Separate Contract.** The purchase and installation of the Conservation Measures shall be pursuant to a separate contract between Participant and Contractor. Puget Sound Energy is not, and shall not be deemed to be, a party to any purchase or installation contract. All obligations to any Contractor pursuant to any such contract shall be Participant's responsibility. Participant expressly acknowledges that Puget Sound Energy's involvement with respect to the Conservation Measures, including but not limited to any energy analysis or inspection by Puget Sound Energy of the Premises or the Conservation Measures, is solely undertaken in connection with furnishing the Grant.
- The types of materials, methods of installation, quality and timing thereof, and any warranties with respect to the Conservation Measures or their installation at the Premises, are matters to be agreed upon solely between Participant and any Contractor. **PUGET SOUND ENERGY HAS NOT MADE AND DOES NOT MAKE (AND PARTICIPANT ACKNOWLEDGES THAT PUGET SOUND ENERGY DOES NOT MAKE) ANY IMPLIED OR EXPRESS WARRANTY (INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS) REPRESENTATION, OR PROMISE WITH RESPECT TO EITHER (A) THE CONSERVATION MEASURES, (B) ANY MATERIALS AND LABOR REQUIRED FOR OR USED IN THE INSTALLATION OF THE CONSERVATION MEASURES, OR (C) THE INSTALLATION OF THE CONSERVATION MEASURES.**
- Release.** Participant releases Puget Sound Energy from any and all claims, losses, harm, costs, liabilities, damages and expenses directly or indirectly resulting from or in connection with (a) the Conservation Measures, (b) any materials and labor required for or used in the installation of the Conservation Measures, (c) the installation of the Conservation Measures, or (d) the identification, handling and disposal of any associated hazardous waste materials.
- Disclaimer.** Puget Sound Energy conducts energy analyses at the request of its customers to determine the extent to which conservation measures are cost-effective. Any estimate of energy savings made by Puget Sound Energy in connection with any such analyses is solely for the purpose of determining the cost-effectiveness of the particular conservation measures and not to be used for any other purpose. Puget Sound Energy has not and does not make any promise, warranty or representation with respect to any savings in energy consumption from Conservation Measures.
- Termination.** In the event a Participant's contribution to Puget Sound Energy's (PSE) recovery of energy efficiency program costs is affected by all or a portion of Participant's electric and/or gas delivery service being provided by a party other than PSE, then Participant shall refund to PSE an amount equal to the ratio of the unused Measure Life of the measure(s) to the total Measure Life of such Conservation Measure(s) multiplied by the dollar amount of the Grant with respect to such Conservation Measure(s).
- Incorporation of tariffs by reference.** This Agreement and the *Attachment To Conservation Grant* are subject to the terms of the filed Electric Schedules 83 and Gas Schedules 183 tariffs, which are incorporated herein by this reference. Further, specific terms and conditions from one or more Conservation Schedules (including but not limited to Electric Schedules 217 (Multi-Family Existing Structure), 218 (Multi-Family New Construction), 250 (Commercial and Industrial Retrofit Program), 251 (Commercial and Industrial New Construction Efficiency), or 258 (Large Power User Self-Directed Program) and Gas Schedules 205 (Commercial/Industrial Retrofit Program), 217 (Multi-Family Existing Structures), 218 (Multi-Family New Construction), or 251 (Commercial/Industrial New Construction Efficiency)) may also apply. Puget Sound Energy will determine, at its sole discretion, which Conservation Schedule or Schedules apply. This determination will be based on, but not limited to metering type, construction type, building size, Puget Sound Energy experience and other industry standards. The applicable Schedule or Schedules number or numbers

4386 1008 Page 2 of 3
C-09565



CONSERVATION GRANT

appear in the title of this Agreement above. A complete list of conservation Schedules is available at: <http://www.pse.com/insidePSE/pateerinformation/Pages/Default.aspx>.

10. **Entire Agreement.** This Agreement sets forth the entire agreement between the parties and supersedes any and all prior agreements with respect to the Conservation Measures. No change, amendment or modification of any provision of this Agreement shall be valid unless set forth in writing and signed by both parties.

PUGET SOUND ENERGY	PARTICIPANT
By: _____	By: _____
Name: <u>David Landers</u>	Print Name: _____
Title: <u>Mgr., Energy Efficiency Services</u>	Title: _____
	Federal Tax I.D. No.: _____

4386 1008 Page 3 of 3
C-09565

If you do not have a Conservation Grant agreement signed by both parties, PSE has not committed to funding your project.



Services & Tools

My PSE Account

Small business customers can manage their PSE account online with services that track and analyze their energy use

- Visit pse.com
- Go to *My PSE Account* section on upper left corner of the page

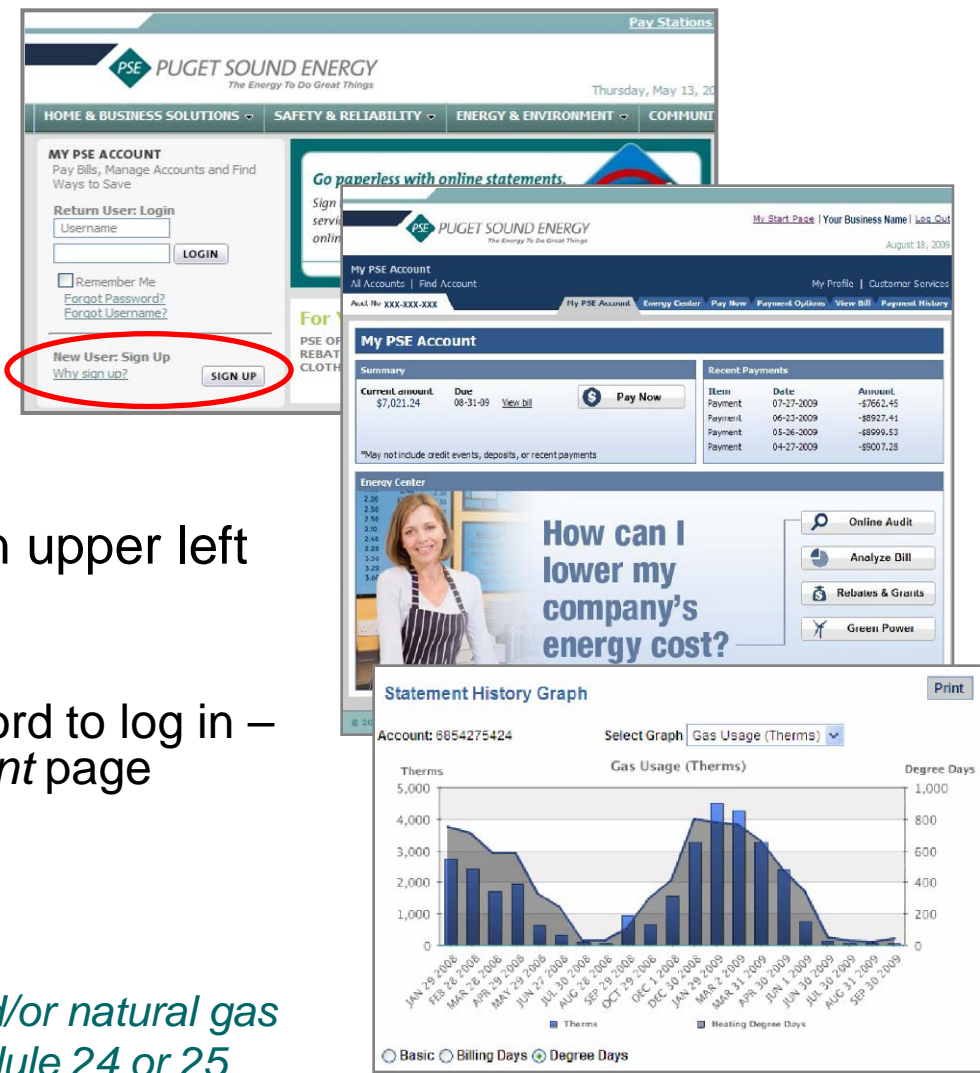
Return users:

- Enter your username and password to log in – takes you to your *My PSE Account* page

New users

- Click on the Sign Up button

Available to non-residential PSE electric and/or natural gas customers served by commercial rate schedule 24 or 25



MY PSE ACCOUNT
Pay Bills, Manage Accounts and Find Ways to Save

Return User: Login
Username:
Password:

Remember Me
[Forgot Password?](#)
[Forgot Username?](#)

New User: Sign Up
[Why sign up?](#)

My PSE Account
All Accounts | Find Account
Account No: XXX-XXX-XXXX

Summary
Current amount: \$7,021.24 Due: 08-31-09

Item	Date	Amount
Payment	07-27-2009	-\$7662.45
Payment	06-23-2009	-\$8927.41
Payment	05-26-2009	-\$8999.53
Payment	04-27-2009	-\$9007.28

Energy Center
How can I lower my company's energy cost?

Statement History Graph
Account: 8854275424
Select Graph: Gas Usage (Therms)

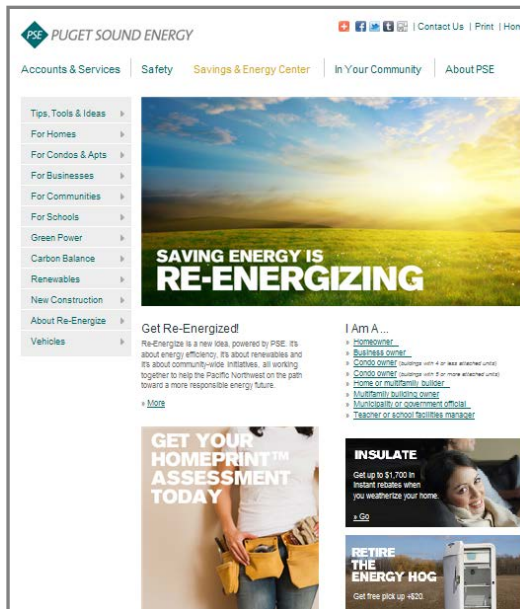
Month	Therms	Heating Degree Days
JAN 29 2008	2800	800
FEB 28 2008	3800	700
MAR 28 2008	2500	600
APR 29 2008	1800	500
MAY 29 2008	1200	400
JUN 27 2008	800	300
JUL 20 2008	500	200
AUG 26 2008	300	100
SEP 29 2008	1000	200
OCT 29 2008	1500	300
NOV 20 2008	2500	400
DEC 1 2008	3500	500
JAN 29 2009	4500	600
FEB 2 2009	4000	500
MAR 2 2009	3500	400
APR 30 2009	2500	300
MAY 1 2009	1800	200
JUN 30 2009	1200	100
JUL 20 2009	800	50
AUG 31 2009	500	20
SEP 30 2009	300	10



Services & Tools

Energy Advisors

- Energy specialists standing by to assist PSE customers with their energy efficiency questions and needs
- PSE Energy Advisors available at **1-800-562-1482**, Monday through Friday, 8 a.m. to 5 p.m.



PSE.COM

- Detailed descriptions of rebates, qualifications and eligibility
- Links to brochures and forms
- Contact information



Services & Tools

Re-Energize Your Business E-newsletter

Quarterly e-newsletter for non-residential customers, from small businesses to large facilities

- Filled with information and updates on energy-efficiency services for commercial, industrial and institutional customers
- Provides money-saving tips and articles about how other business customers are becoming “green” with energy efficiency

Visit www.PSE.com/EESNews to sign up today

PSE.COM/FORYOURBUSINESS

RE-ENERGIZE YOUR BUSINESS
Energy news and information

PSE PUGET SOUND ENERGY

Quick Links

[Join our mailing list](#)

[E-mail us](#)

[Forward to a colleague](#)

In This Issue

[Providence St. Peter Hospital Grant](#)

[Museum of Glass Grant](#)

[LOTT Alliance Award](#)

[United States Military Grants](#)

[Standby Generators](#)

[West Coast Energy Management Congress](#)

PSE Provides Energy-Efficiency Grant to Olympia's Providence St. Peter Hospital



Providence St. Peter Hospital

PSE recently awarded Providence St. Peter Hospital (PSPH) an energy-efficiency grant totaling \$458,343.23. The grant helped the Olympia hospital purchase a system designed to recycle the boiler heat that would otherwise vent into the atmosphere. The otherwise wasted energy is now being used to heat part of the hospital and provide hot water.

This project is estimated to save the hospital about \$60,000 in natural gas costs per year. Reducing the reliance on natural gas has also helped PSPH reduce their carbon footprint.



Thank you!

Andreas Winardi
Sr Energy Management Engineer
Industrial Sector
425-424-6453
Andreas.winardi@pse.com