

Puget Sound Energy

Customer Category	Target	Program
Residential	Information Services	On-line tools and customer management system Energy Advisors Energy Efficiency Brochures Electronic Newsletters Community events/trade shows
Residential	Low Income Weatherization	Customer incentives - single family Retrofit - multi-family
Residential	Energy Education	
Residential	Single Family Existing	Retail incentive for lighting and appliances Appliance decommissioning Installation of CFL bulbs and efficient showerheads Home performance evaluations Rebates for efficient heating and water heating equipment Discounted and rebated weatherization
Residential	Single Family New Construction	Incentives to customers, service contractors, retail partners, equipment suppliers, distributors and manufacturers
Residential	Fuel Conversion	Incentives for conversions from electric to gas water heaters and space heating equipment
Residential	Multi-Family Existing	Financial incentives for energy efficient equipment installed in multi-family buildings (condos and apartments)
Residential	Multi-Family New Construction	Incentives to owners and developers for installation of energy efficient measures into new multi-family buildings
Pilot Programs	Various	Promote efficient TV sales at retailers Heat Pump Air Handler/Furnace Fan Motor Upgrade Heat Pump Sizing and Lock Out Controls High Efficiency Natural Gas Fireplace Home Intelligence/Automation IC- and WAC- rated CFL fixtures Community education about CFL bulbs Micro-Combined Heat and Power System Home Energy Reports

DSM Programs Offered by Other Utilities with Fuel Switching

Customer Category	Target	Program
Pilot Programs	Various	Prepay Billing System
Commercial/Industrial	Retrofit	Residential Grants for energy retrofit projects Review energy consumption at customer facility Assess cost effective energy savings opportunities Assess fuel switching opportunities Grants toward energy savings projects
	Incentives	Commissioning of existing buildings Commercial and industrial process improvement Energy use monitoring
Commercial/Industrial	New Construction	Propose cost effective energy efficient designs Propose cost effective equipment and systems Incentives for exceeding building code by at least 10%
Commercial/Industrial	Resource Conservation Manager	Large customer with multiple facilities Program start-up, Resource Accounting Software Technical Assistance, Education and Training, Energy Data Services, Incentive Programs
Commercial/industrial	Small Business Lighting	Prescriptive rebates for lighting retrofits
Commercial/Industrial	LED Traffic Signals	Public sector customer education on benefits of installation
Commercial/Industrial	Large Power User Self-Directed	Electric energy efficiency measures through RFP process Customer proposed custom EE measures
Commercial/Industrial	Incentives	Fixed rebates for installing specific electric and gas efficiency measures in commercial buildings such as high efficiency HVAC
Other Electric		Net Metering for customer generators Production Metering for customer generators Small Scale Renewable Electricity Generation Demand Response Pilots

CenterPoint - Texas

Customer Category	Target	Program
Residential	New Construction	Incentives to builders for constructing ENERGY STAR homes Training, education, and avertising also included
Commercial	Standard Offer Program	Incentives to large commercial customers with minimum demand of 100 KW for installation of measures in new or retrofit applications
Residential	Standard Offer Program	Incentives to residential customers with maximum demand of less than 100 KW for installation of certain measures in new or retrofit applications including air conditioning duct sealing weatherization, ceiling insulation, water saving measures, and ENERGY STAR windows.
Residential	Hard to Reach Standard Offer	Incentives to project sponsors for installing certain measures which provide verifiable demand and energy savings to customers whose household income is less than 200% of federal poverty guidelines. Qualifying measures include those in Residential SOP plus CFL bulbs.
Commercial	Retro-Commissioning	No-cost or low-cost measures to reduce demand and energy usage in commercial facilities.
Residential	Multi-Family	Promote installation of energy efficient non-electric water and space heating equipment in multi-family buildings.
Residential	City of Houston	Energy efficiency retrofits that target whole neighborhoods of both hard to reach and non-hard to reach customers.
Residential	Low Income	Community agencies install energy efficiency measures in low-income households, including attic insulation, solar screens, CFL bulbs, ENERGY STAR room air conditioners, ENERGY STAR ceiling fans, ENERGY STAR refrigerators, duct efficiency improvement, and air infiltration control.
Residential	Low Income	Non-profit agency installs ceiling insulation and CFLs in low-income households.
Commercial/Industrial	Incentives	Promotes installation of energy efficiency measures to school administrators and city planners.

DSM Programs Offered by Other Utilities with Fuel Switching

Customer Category	Target	Program
Residential/Small Comm	Incentives	Paid to air conditioning distributors and dealers to facilitate installation of high-efficiency air conditioners and heat pumps in single family homes, multi-family homes, and small commercial businesses.
Commercial	Load Management	Call for curtailment when ERCOT reaches Step 3 emergency conditions. Incentives will be paid to non-residential, governmental, educational, and non-profit customers for each KW they curtail during emergency conditions.
R&D Projects		Commercial LED lighting program Residential/small commercial back-up load management project Residential feedback demonstration project City of Houston dashboard project - monitor energy usage Solar energy pilot project Renewable energy integration with Smart Grid project Residential direct load control Plug-in electric vehicle charging demonstration project

DSM Programs Offered by Other Utilities with Fuel Switching

Avista Corporation

Customer Category	Target	Program
Residential	Single family - electric	Rebates for purchase/installation of Energy Star appliances
		Rebates for home weatherization - insulation and windows
	Residential - new construction	Energy Star homes
		Shade Tree program
		Space and Water Heat Direct Use Efficiency - fuel conversion
		Rebates for water heater efficiency
		Refrigerator/freezer recycling
		CFL bulbs - geographic saturation
		CFL bulbs - PECL buy down
		Heating and cooling efficiency
Multi-family	UCONS	
Residential	Single family - natural gas	Energy efficient appliance rebates
		Home weatherization rebates
	Residential new construction	Energy Star homes
		Water heater efficiency rebates
	Multi-family	Heating and cooling efficiency
		UCONS
Low Income	Electric	Site specific
		Energy efficient appliance rebates
		CFLs for seniors
		Home weatherization rebates
	Natural Gas	Space and Water Heat Direct Use Efficiency - fuel conversion
		Water heater efficiency rebates
		Heating and cooling efficiency
Non-residential	Electric	Purchase/installation of Energy Star products
		Home weatherization rebates
		Water heater efficiency rebates
		Heating and cooling efficiency
		Purchase/nstallation of Energy Star products
		EnergySmart - rebates for refrigeration systems
Green Motors Initiative - Motor rewind		
Prescriptive Clothes Washers		

DSM Programs Offered by Other Utilities with Fuel Switching

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Non-residential	Natural Gas	Prescriptive Demand Controlled Ventilation
		Prescriptive Food Service
		Prescriptive LED traffic signals
		Prescriptive Lighting
		Prescriptive Motors
		Prescriptive PC Network Controls
		Prescriptive Refrigerated Warehouse
		Prescriptive Side-stream Filtration
		Renewable
		Rooftop Maintenance
		NEEA 80+
		Site-specific Appliances
		Site-specific Compressed Air
		Site-specific HVAC
		Site-specific Industrial Process
		Site-specific LEED certification
		Site-specific Lighting
		Site-specific Motors
		Site-specific Shell
		Purchase/installation of Energy Star products
		EnergySmart - rebates for refrigeration systems
Prescriptive Clothes Washers		
Prescriptive Demand Controlled Ventilation		
Prescriptive Food Service		
Prescriptive Refrigerated Warehouse		
Prescriptive Steam Trap Replacement		
Site-specific Appliances		
Site-specific HVAC		
Site -specific Industrial Process		
Site-specific Shell		

Annual Operating Cost Savings: Water Heating and Space Heating

Water Heating

	Consumption MMBtu	Price	Operating Cost	Source - Consumption Data
Gas	25.40	\$ 11.35	\$ 288.29	AGA study
Electric	16.60	\$ 27.74	\$ 460.48	AGA study
Savings			\$ 172.19	

Space Heating

	Consumption MMBtu	Price	Operating Cost	Source - Consumption Data
Gas	74.30	\$ 11.35	\$ 843.31	AGA study
Electric	61.40	\$ 22.46	\$ 1,379.04	AGA study
Savings			\$ 535.74	

Gas Price Calculation

MGE	Revenue	Mcf	Cost / Mcf	Source
2009	\$ 473,442,858	39,495,114	\$ 11.9874	MGE data request
2008	\$ 404,043,071	36,182,498	\$ 11.1668	MGE data request
2010 (thru Sept)	\$ 303,339,279	28,338,007	\$ 10.7043	MGE data request
	\$ 1,180,825,208	104,015,619	\$ 11.3524	

Electric Space Heating Price Calculation

KCP&L	Revenue	Mwh	Cost / Kwh	Source
Electric Heat	\$ 37,186,093	482,136	\$ 0.0771	2009 FERC Form 1, p 304
Electric Heat sep Meter	\$ 10,573,009	141,007	\$ 0.0750	2009 FERC Form 1, p 304
Average	\$ 47,759,102	623,143	\$ 0.0766	
Convert Kwh to MMBtu			0.003412	
Rate per MMBtu			\$ 22.46	

Electric Water Heating Price Calculation

KCP&L	Revenue	Mwh	Cost / Kwh	Source
Electric residential standard	\$ 174,570,150	1,844,083	\$ 0.0947	2009 FERC Form 1, p 304
Convert Kwh to MMBtu			0.003412	
Rate per MMBtu			\$ 27.74	

Estimated Customer Savings: Conversion/Installation, Appliance Upgrade, and Annual Operating Savings

Customer Savings - Gas Water Heater	Estimate	Source
Service Line to Customer Premise	\$ -	No cost if < 60 feet
Rebate - Conversion/Installation	\$ 700	KCP&L
Rebate - Energy Star Gas Furnace	\$ 40	MGE
Annual Operating Savings	\$ 172	Schedule JJR-R2

Customer Savings - Gas Furnace vs. Electric Resistance Heat	Estimate	Source
Service Line to Customer Premise	\$ -	No cost if < 60 feet
Rebate - Conversion/Installation	\$ 1,000	KCP&L
Rebate - Energy Star Gas Furnace	\$ 200	MGE
Annual Operating Savings	\$ 536	Schedule JJR-R2

Customer Savings - Gas Water Heater and Gas Furnace	Estimate	Source
Service Line to Customer Premise	\$ -	No cost if < 60 feet
Rebate - Conversion/Installation	\$ 1,200	KCP&L
Rebate - Energy Star Water Heater and Gas Furnace	\$ 240	MGE
Annual Operating Savings	\$ 708	Schedule JJR-R2

Customer Payback Period - Water Heating and Space Heating

Customer Payback Period - Gas Water Heater	Estimate	Source
Out of Pocket Costs:		
Service Line Cost	\$ -	MGE
Conversion/Installation Cost	\$ ***	Cost minus KCP&L rebate
Equipment Cost	\$ 560	Cost minus MGE rebate
Annual Operating Savings	\$ 172	Schedule JJR-R2
Payback Period (years)	***	Calculation

Customer Payback Period - Gas Furnace vs. Electric Resistance Heat	Estimate	Source
Out of Pocket Costs:		
Service Line Cost	\$ -	MGE
Conversion/Installation Cost	\$ ***	Cost minus KCP&L rebate
Equipment Cost	\$ 1,700	Cost minus MGE rebate
Annual Operating Savings - vs. electric resistance heat	\$ 536	Schedule JJR-R2
Payback Period (years) - vs electric resistance heat	***	Calculation

Customer Payback Period - Water Heater & Gas Furnace	Estimate	Source
Out of Pocket Costs:		
Service Line Cost	\$ -	MGE
Conversion/Installation Cost	\$ ***	Cost minus KCP&L rebate
Equipment Cost - Water Heater	\$ 560	Cost minus MGE rebate
Equipment Cost - Furnace	\$ 1,700	MGE rebate
Annual Operating Savings - Water heater	\$ 172	Schedule JJR-R2
Annual Operating Savings - Furnace	\$ 533	Schedule JJR-R2
Payback Period (years)	***	Calculation

Effect of Fuel Switching Program on KCP&L Revenues

Effect on KCP&L	Estimate	Source
Lower distribution revenue from 400 customers	\$ 239,306	See Below
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Lower distribution revenues		
Annual cost to operate electric water heater	\$ 460.48	Schedule JJR-R2
Customers converting from electric to natural gas water heater	340	
Lower revenue from water heating	\$ 156,563	
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Annual cost to operate electric resistance heat	\$ 1,379.04	Schedule JJR-R2
Electric resistance heat	60	
Lower revenue from space heating	\$ 82,742	
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Total lower revenue from water heating and space heating	\$ 239,306	
2009 Electric Revenue - Missouri	\$ 632,686,000	2009 FERC Form-1
% Lower Revenue	0.038%	