

# PSE Energy Efficiency Services

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**PUGET SOUND ENERGY**

*The Energy To Do Great Things*

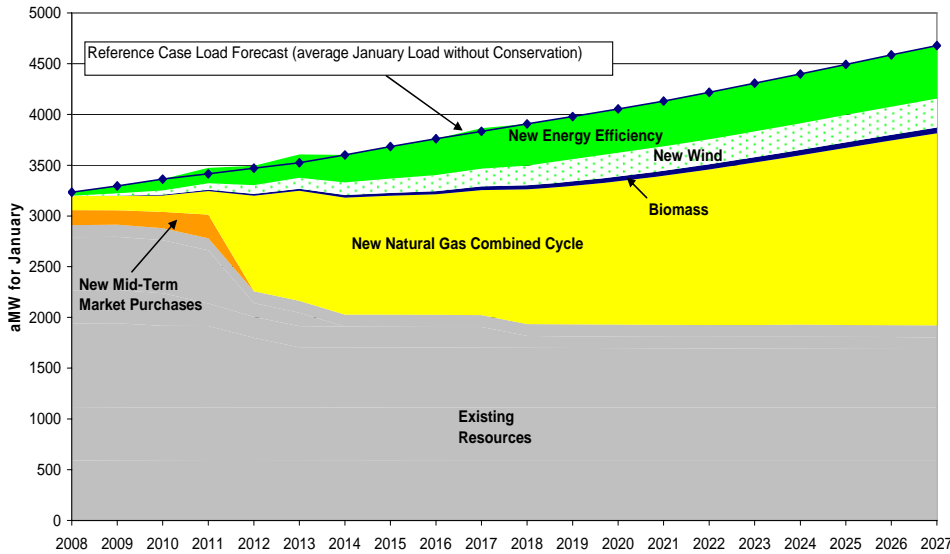
# Agenda

- ◆ Program Drivers
  - ◆ Efficiency in the IRP
  - ◆ Programs Planning Process
- ◆ Program Updates
  - ◆ Programs Summary
  - ◆ Selected Program Highlights
- ◆ Efficiency Tools



# IRP Energy Resource Strategy

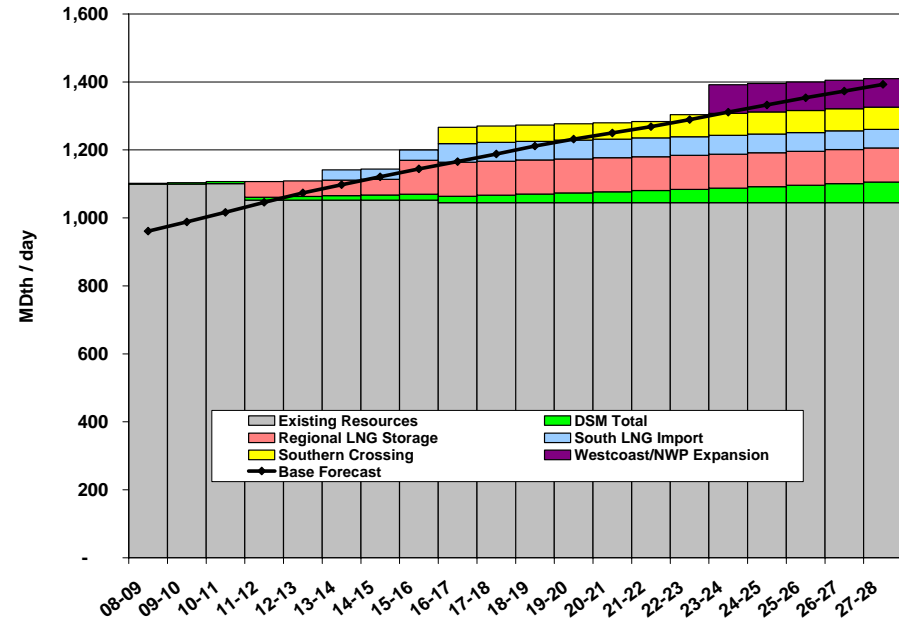
Lowest Reasonable Cost Resource Portfolio  
2007 IRP



## Electric

- Immediate need; large increase in 5 years
- New resources will meet 59% of load
- EE/FC/DG is 19% of new resource adds

Lowest Reasonable Cost Portfolio  
2007 IRP

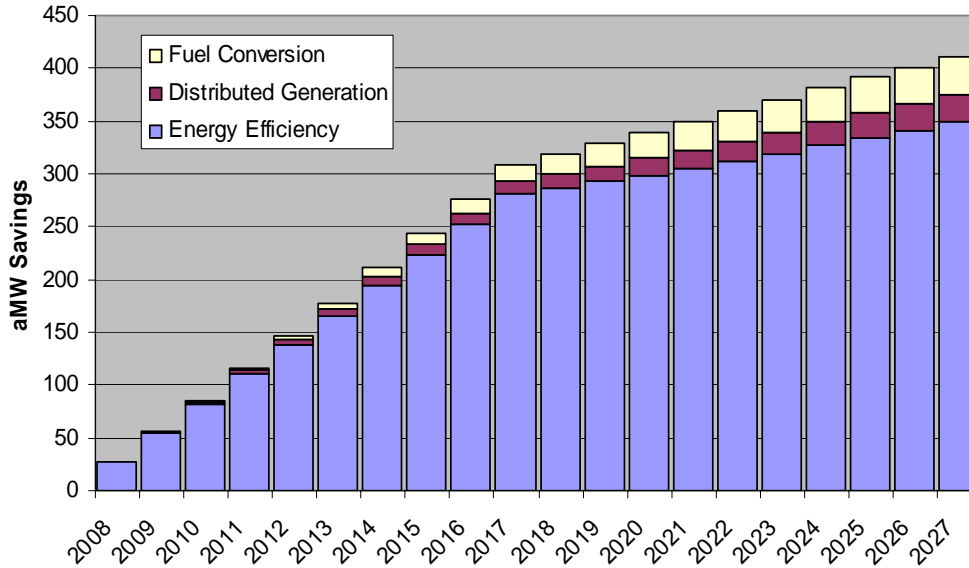


## Gas

- Need is 4 years out
- New resources will meet 25% of load
- EE is 17% of new resource adds

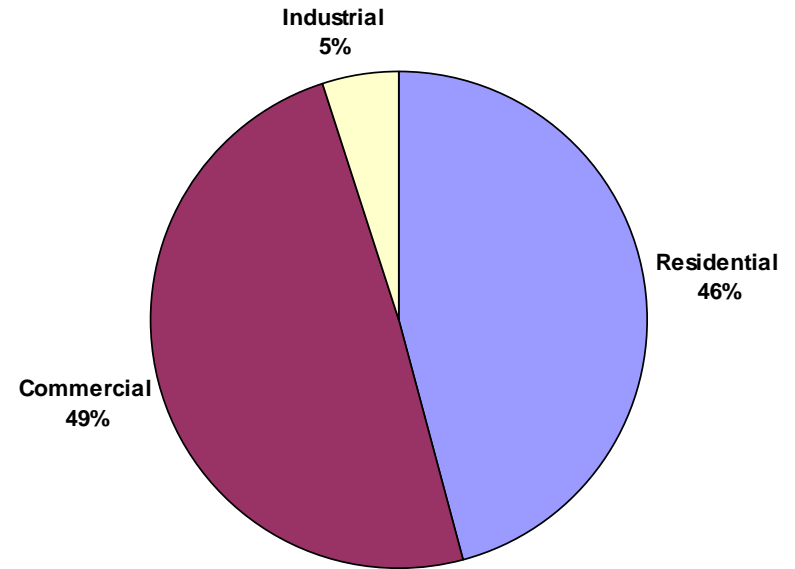
# IRP Guidance – Electric DSM

2007 IRP Electric Demand-Side Resource Potential



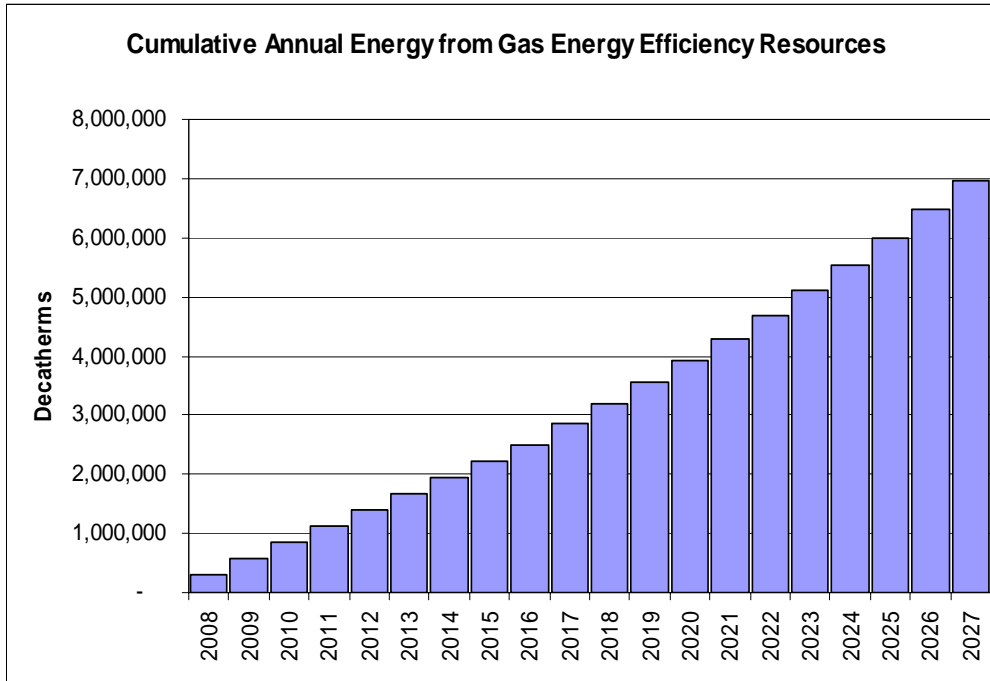
- 412 aMW savings at the customer meter over 20 yrs.
- Acceleration of EE acquisition
- 56 aMW savings in 2008-09

IRP EE Electric Savings by Customer Class



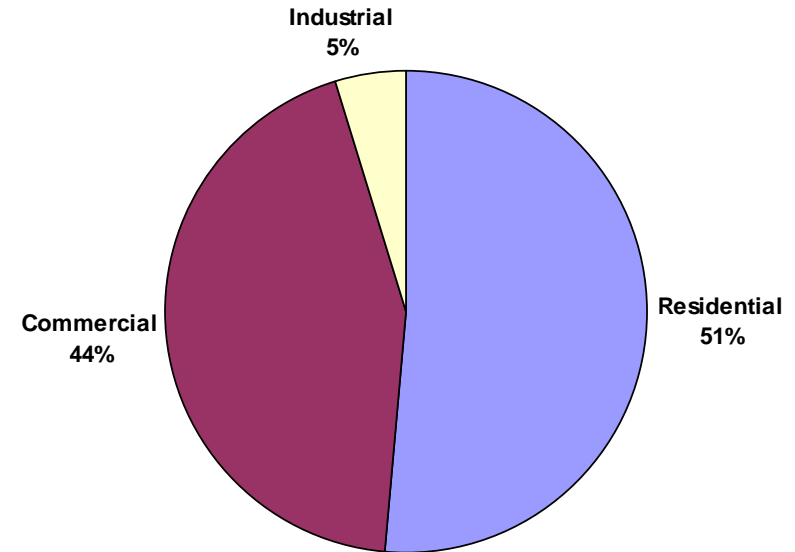
- 70% Retrofit; 30% “Lost Opportunities”
- Lighting remains largest opportunity

# IRP Guidance – Gas DSM



- 70 million therms of savings over 20 years
- Steady ramp-up over time
- 5.8 million therms of savings in 2008-09

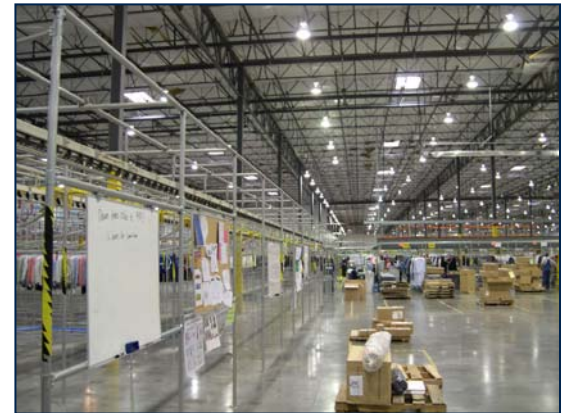
## IRP Gas Savings by Customer Class



- 46% Retrofit; 54% “Lost Opportunities”
- Space heat, water heat and process boilers

# 2008 – 2009 Program Planning

- ◆ Integrated Resource Plan - PSE's plan for meeting our energy resource needs
- ◆ Conservation Resource Advisory Group (CRAG)
  - ◆ Includes reps from trade ally and customer associations, state agencies, and conservation advocacy groups
- ◆ Aggressive 2 year Savings Targets:
  - ◆ 5.3 million therms
  - ◆ 53.3 aMW
  - ◆ \$145 million budget
- ◆ Penalties for not meeting goals
- ◆ Incentive for exceeding goals



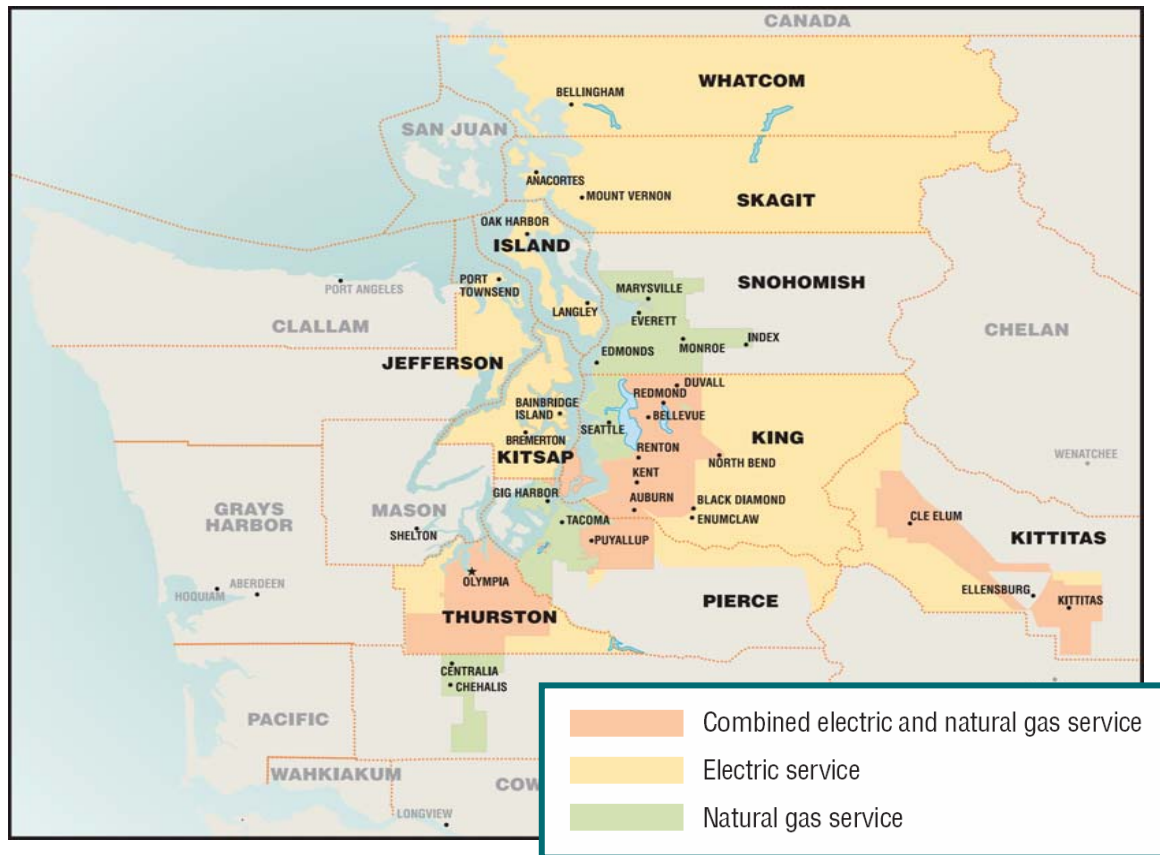
# PSE Energy Efficiency Programs



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# Programs Eligibility



- ◆ Electric Incentive – Must be a PSE electric customer
- ◆ Gas Incentive – Must be a PSE natural gas customer  
(Natural gas transportation customers are NOT eligible to receive conservation incentive funding)

# EES Program Measures

- ◆ **Residential Sector**

- ◆ **2008 & 2009: 23.8 aMW & 2.55 million therms, \$73.5 million**

- ◆ **Low Income, Single Family, and Multi-Family Programs**

- ◆ **End Use: Measures and Incentives**

**HVAC and Refrigeration:**

Furnaces  
Heat Pumps  
Duct Sealing  
Variable Speed Motors  
Low-Wattage Whole-House Ventilation  
Systems

**Appliances:**

Clothes washers  
Dishwashers  
Refrigerators  
Refrigerator  
Decommissioning

**Building Thermal Improvements:**

Roof and Ceiling Insulation  
Exterior Roof Insulation  
Structure Sealing  
Wall Insulation  
Insulated Windows  
Duct Insulation

**Building Modeling**

Increase MF Energy Efficiency Performance

**Controls:**

Programmable Thermostats  
Motion Sensors

**Lighting Improvements:**

Compact Fluorescent Luminaries  
Light Socket Conversion kits  
Compact Fluorescent Fixtures  
Common Area Lighting—Multi-Family

**Water Heating Improvements:**

Water Heaters  
Water Heater Insulation  
Tankless Water Heater  
Piping Insulation  
Low Flow Shower heads & Aerators



# EES Program Measures

- **Commercial/Industrial Sector**

- **2008 & 2009: 24 aMW & 2.75 million therms, \$61.2 million**
- **Retrofit, New Construction, Small Business Lighting, Large Power and Self-Directed and Incentive Programs**
  - **End Use: Measures and Incentives (Grants as well as prescriptive basis)**

**HVAC and Refrigeration:**

HVAC – unitary  
HVAC – central  
Heat Recovery Systems  
Chillers  
Economizers  
Variable Speed Drives  
Intelligent Motors  
TEFC and ODP Motors

**Process Efficiency Improvements:**

Refrigeration Systems  
Motor and Drive Systems  
Fan, Compressor and Pump Systems or Stations  
High Efficiency Motors  
ENERGY STAR Transformers  
Other Process Modifications  
Resource Conservation Manager (RCM)

**Building Thermal Improvements:**

Roof and Ceiling Insulation  
Exterior Roof Insulation  
Wall Insulation  
Insulated Windows  
Duct Insulation

**Commissioning:**

Commissioning Energy Systems

**Controls:**

Energy Management Systems  
Direct Digital Control Systems  
Lighting Control Systems  
Vending Machines  
Thermostats  
Motion Sensors  
Process and Other Efficiency  
Control Systems

**Lighting Improvements:**

Fluorescent Luminaries  
Compact Fluorescent Luminaries  
HID Luminaries  
LED and EL Exit Signs  
Traffic Signals

**Water Heating Improvements:**

Water Heaters  
Piping Insulation  
Low Flow Devices  
Spray Heads  
Boiler Tune-ups

**Appliances:**

Refrigerators  
Fryers  
Steamers  
Commercial Clothes Washers  
Commercial Dishwashers

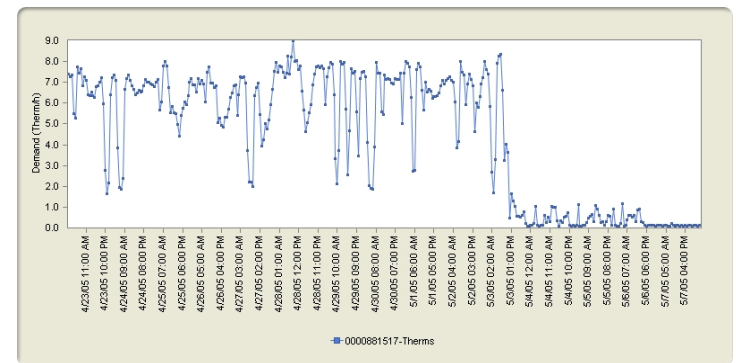


# Programs Implementation

- ◆ Market Research / Segmentation
- ◆ Increase Coordination with other Utilities
- ◆ Visibility / Events
  - ◆ 250 + Events in 2008
  - ◆ Energy Management Congress
- ◆ Hiring Challenges

# New Cool Stuff

- ◆ Demand Response Pilots
- ◆ Direct Use of Natural Gas
- ◆ Increased Business Efficiency Incentives
- ◆ Home Energy Audits Pilot
- ◆ In-Home Energy Use Displays Pilot
- ◆ Positive Energy Pilot



# Tools Available to You



## PSE Energy Advisors

1 800 562 1482

- ◆ *Technical Questions*
- ◆ *Rebate Programs Information*
- ◆ *Brochures*
- ◆ *Contractor Referral Service*



# Tools Available to You

## www.PSE.com

- ◆ *Technical Questions*
- ◆ *Rebate Programs Information*
- ◆ *Online Brochures*
- ◆ *Contractor Referral Service*
- ◆ *Online Bill Analyzer*

The screenshot displays the PSE website interface within a browser window. The address bar shows <http://www.pse.com/solutions/ForYourHomeLanding.aspx>. The website header includes the PSE logo, the tagline "The energy to do great things", and a "My PSE Account: LOGIN" link. A navigation bar contains links for "Home", "Service Map", "Search", and "Contact Us". Below this is a main menu with categories: "HOME & BUSINESS SOLUTIONS", "SAFETY & RELIABILITY", "ENERGY & ENVIRONMENT", "COMMUNITY", and "INSIDE PSE". The date "July 12, 2006" is displayed in the top right corner.

The main content area is titled "For Your Home" and features several promotional tiles:

- For Your Home**: A central tile with a green background and an image of coffee bags, stating "It's a great time to join the Green Power Program!" and mentioning a complimentary gift of triple certified coffee from Grounds for Change.
- Register today for My PSE Account**: A tile encouraging users to sign up for an online account to manage bills and analyze energy usage.
- Energy Advisors**: A section offering free tips and tools to make homes more energy efficient, with a link to "More >".
- Rebates and Promotions**: A section about putting cold cash in users' pockets by buying energy-efficient products, with a link to "More >".

A left-hand sidebar lists various services under "FOR YOUR HOME":

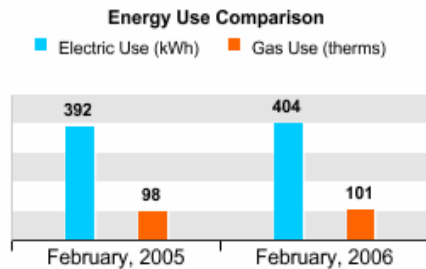
- Paying Your Bill**
- About Your Account**
- Low Income Assistance**
- Ways to Save**: Energy Efficiency, Appliances, Lighting, Heating, Water Heating, Weatherization.
- Rebates & Promotions**: Electric & Natural Gas Service Requests, Choosing Natural Gas, Green Power Program, Energy Advisors, Contractor Referral Service, Rates, Customer Service Guarantee.

The footer contains contact information: "General Info: (888)225-5773" and links for "Terms of Use", "Privacy Policy", "Website Feedback", "For Investors", and "Site Map".

# Tools Available to You

## Online Energy Use Analysis

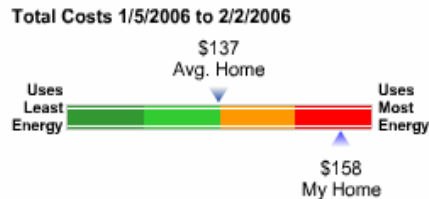
How does my current energy use compare to last year's?



### Bill History

View and graph up to 24 months of information from your bills.

How does the cost of energy used in my home compare to similar homes?

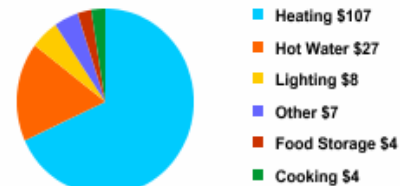


Total  Electricity  Gas

Your home used more energy than most of the similar homes in your area. Click on the **Find Ways to Save** tab

How is energy used in my home?

**Total Costs 1/5/2006 to 2/2/2006**



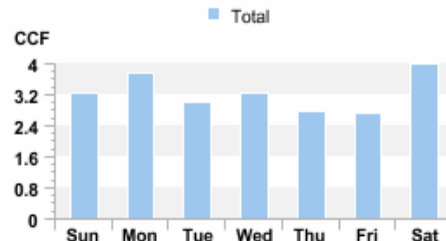
Total  Electricity  Gas

### Appliance Use Analyzer

Find out how much it costs to run your appliances.

When is energy being used in my home?

**Average Energy by Day-of-Week**



Choose meter: 000820816 - Gas

Energy Use Analyzer

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Thank You!