

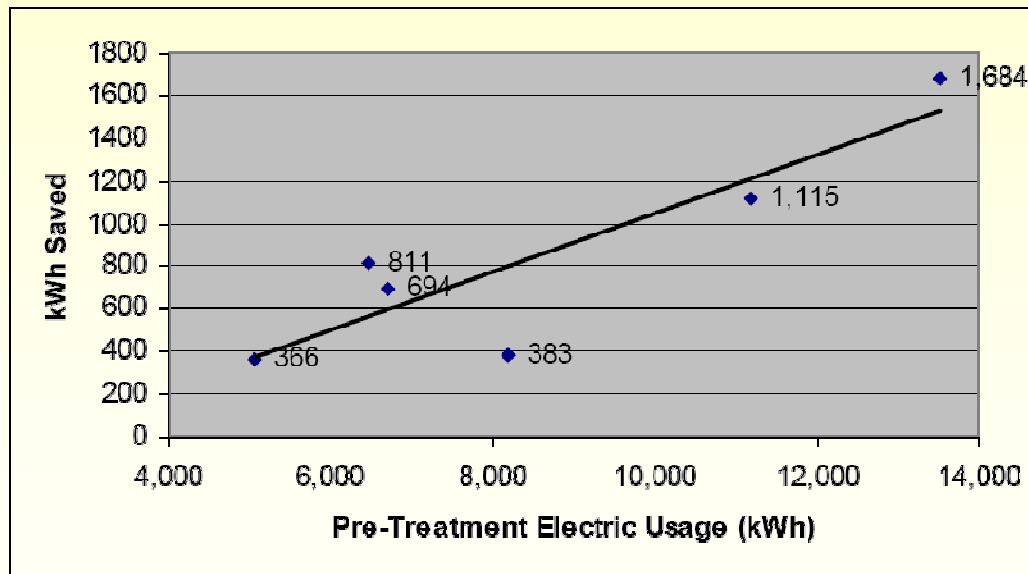
# Focusing Our Efforts

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# Why look at use?

- Total electricity use relates directly to potential electricity savings.

## Electric Baseload Usage Impacts



# Baseload VS Seasonal Use

- Baseload use: Electricity used to power things that are used year round
- Seasonal use: Electricity used to power the heating and cooling systems

Both vary throughout the year, but usually not significantly.

# Assess the Energy-Saving Opportunities

- Is the baseload use LOW, MID range or HIGH?
- Is the seasonal use LOW, MID range or HIGH?

# Top Six Energy Uses for U.S. Households

<b><i>Electric Energy User</i></b>	<b><i>kWh/yr</i></b>
Heating	2,000 – 10,000
Cooling	600 – 7,000
Water Heating	2,000 – 7,000
Refrigerator	500 – 2,500
Lighting	500 – 2,000
Clothes Dryer	500 – 1,500

*From Saturn Resource Management, Building Analyst Guide, 2007*

# PPL All-Electric Consumption for an Average Customer

<b><i>Electric Energy User</i></b>	<b><i>kWh/yr</i></b>
Heating	9,100
Cooling	700
Water Heating	3,200
Refrigerator	1,200
Lighting	1,200
Clothes Dryer	1,000
Other	1,200

*From WRAP Standards and Field Guide, page 33*

# Annual End Use Consumption Ranges (kWh)

Electricity Use	LOW	MID	HIGH
<b>Baseload</b>	2250	5000	8000
<b>Domestic Hot Water</b>			
Hot water use, 1-3 people	2500	4500	6000
Hot water use, 3-6 people	4000	6000	8000
<b>Cooling</b>			
Cooling load (total household)	750	1500	2500
<b>Heating</b>			
Electric heat load	2000	5000	8500

# Where does the Average PPL Customer fall?

- Baseload use is MID
  - Water heating use is LOW to MID
  - Cooling use is LOW
  - Heating use is HIGH
- 
- What about your customer?

# If.... Then....

- If any category of use is LOW, save your time and energy and focus where the use is MID or HIGH

# Example

## Annual Customer Usage

LAN

Active

LANCASTER  
40256S25894

PA 17603  
Non Ele HtCool

<i>Bill Date</i>	<i>Billing Days</i>	<i>Tariff Schedule</i>	<i>Reading Source</i>	<i>KWH</i>	<i>KWH/Day</i>	<i>Bill Amount</i>
7/10/2007	32	RSO	Regular Company	2,043	64	\$181.45
6/8/2007	30	RSO	Regular Company	1,134	38	\$107.44
5/9/2007	29	RSO	Regular Company	1,056	36	\$101.09
4/10/2007	32	RSO	Regular Company	1,492	47	\$136.59
3/9/2007	30	RSO	Regular Company	1,972	66	\$175.67
2/7/2007	28	RSO	Regular Company	1,599	57	\$145.30
1/10/2007	33	RSO	Regular Company	1,396	42	\$128.74
12/8/2006	29	RSO	Regular Company	1,194	41	\$112.28
11/9/2006	30	RSO	Regular Company	1,314	44	\$122.05
10/10/2006	29	RSO	Regular Company	892	31	\$87.69
9/11/2006	33	RSO	Regular Company	1,740	53	\$156.71
8/9/2006	29	RSO	Regular Company	2,386	82	\$209.33

*Total:*

18,218

\$1,664.34

# Separate Baseload from Seasonal Use

- The baseload use is 13,560 kWh/yr, HIGH
- The seasonal use is 4,658 kWh/yr

This job becomes a Full Cost audit.

If we separate the seasonal use into use per season, we find:

- Summer seasonal use is HIGH
- Winter seasonal use is LOW

# Where do we focus our efforts on this job?

- Reducing baseload use
- Reducing summer seasonal use

Some of the measures that reduce summer use are different from the measures that reduce winter use.