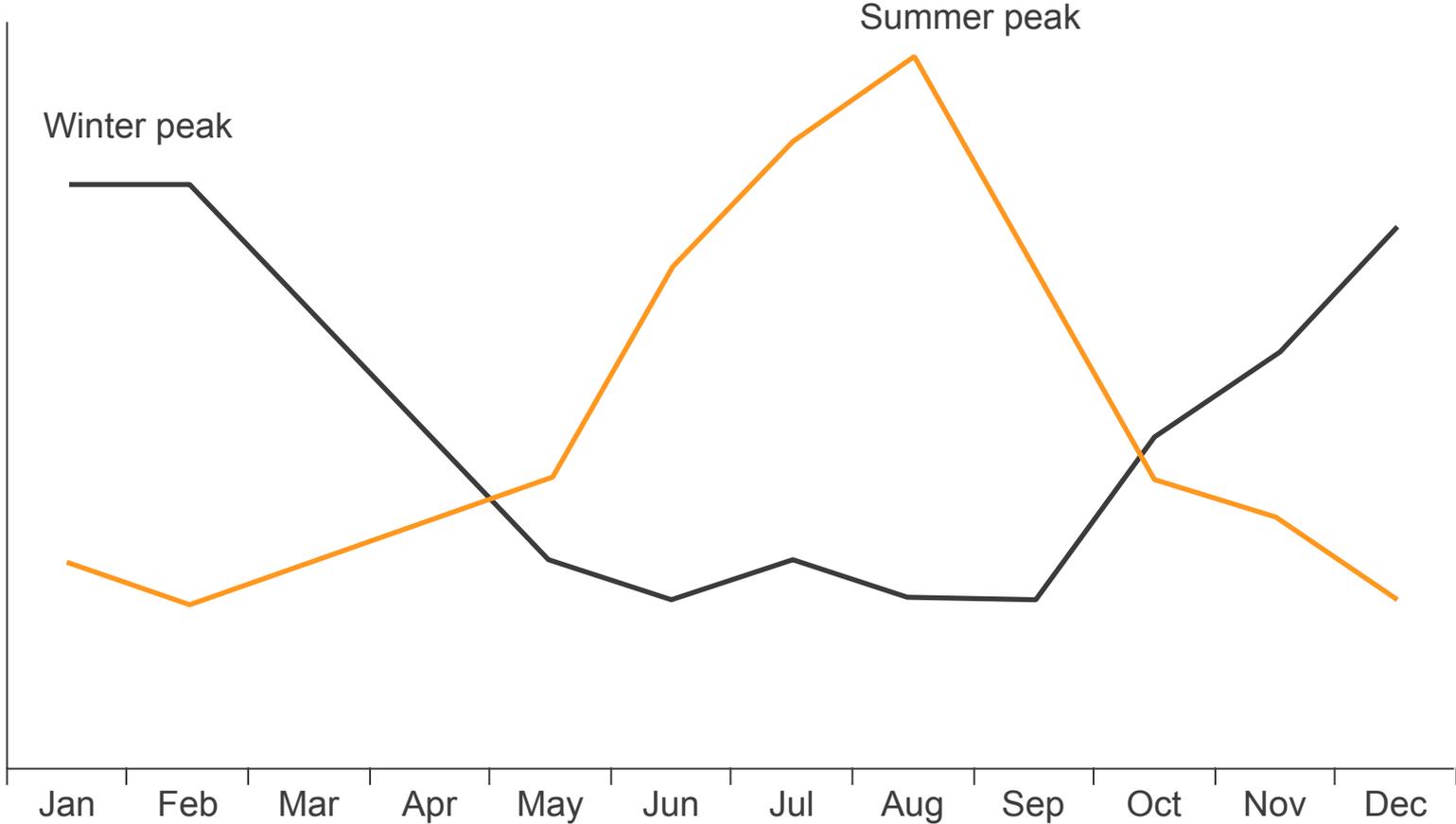


Personalization Through Load Curve Analysis

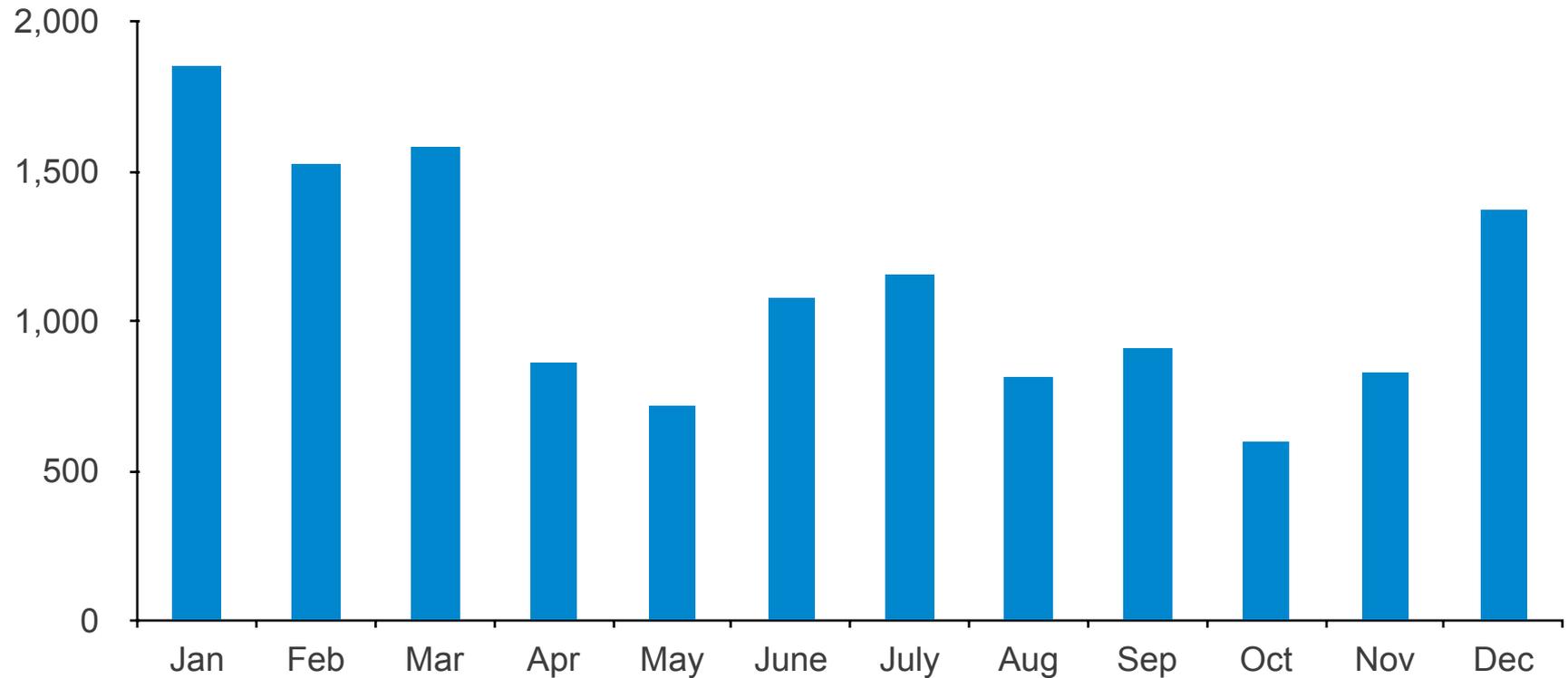
Yearly archetypes

MONTHLY ELECTRIC USAGE
KWh



Nancy is a winter peaker

NANCY 2014 MONTHLY ELECTRIC USAGE KWh



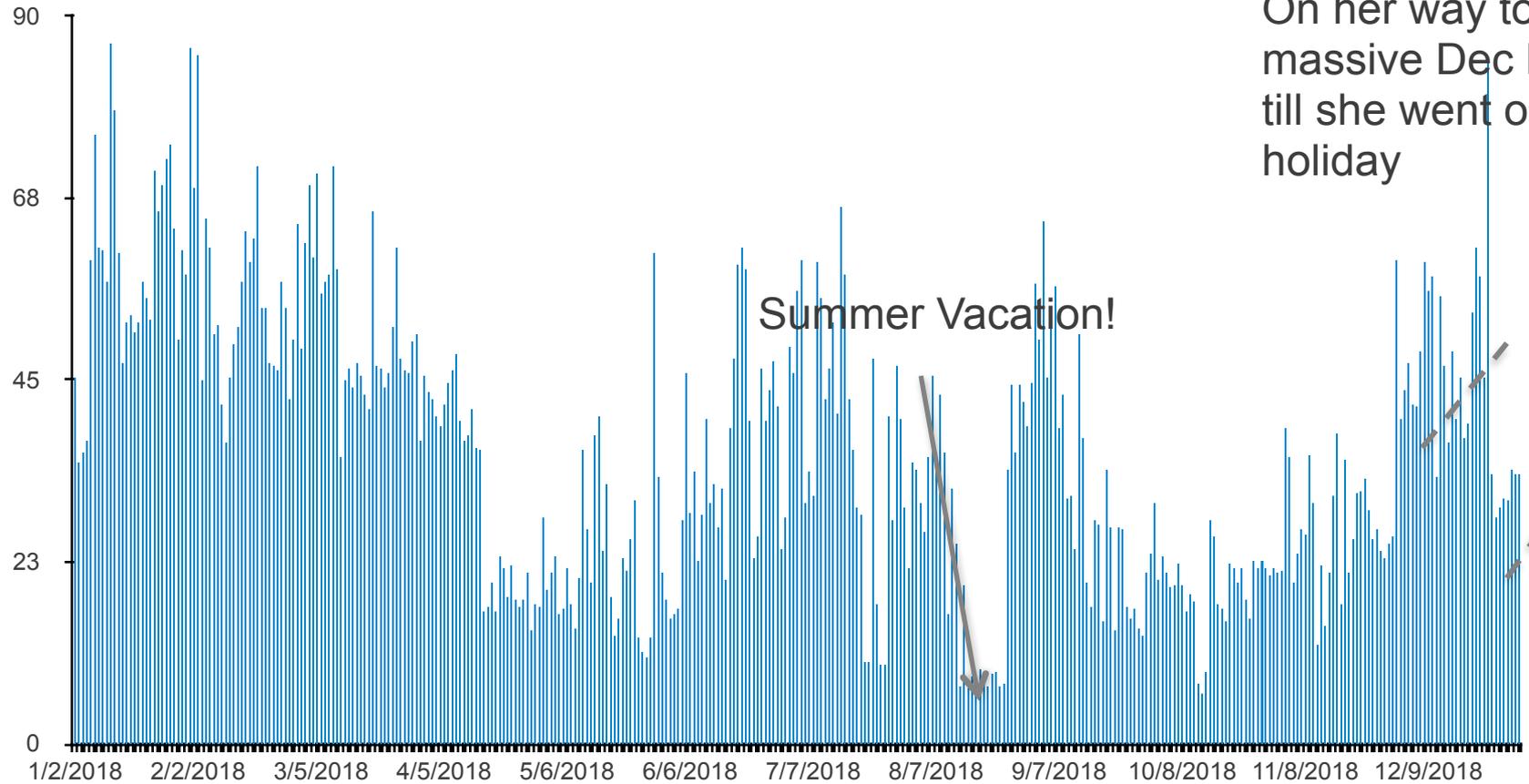
But there's more ...

Nancy has a smart meter!



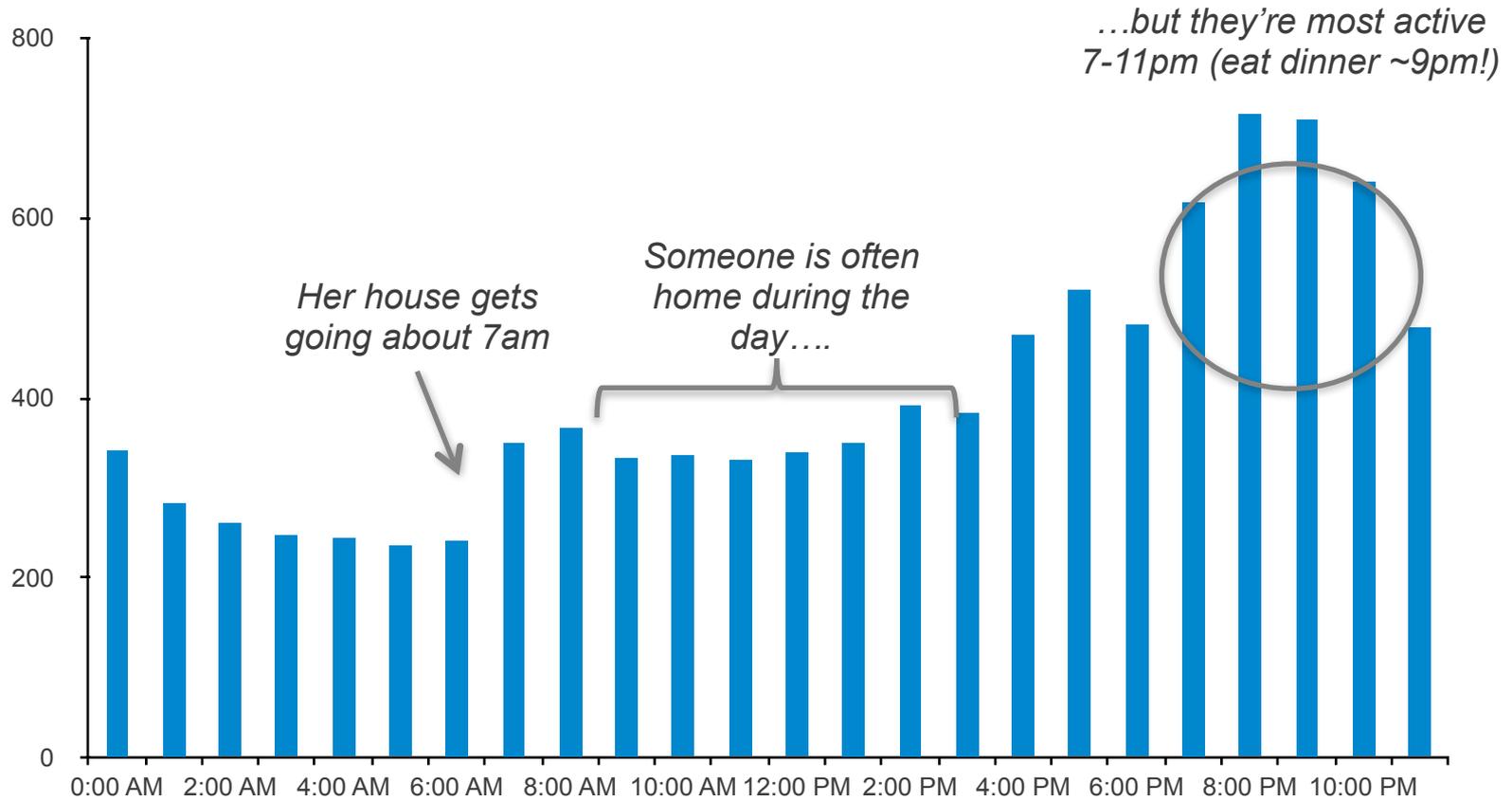
Daily data provides a peak under the hood

NANCY 2014 DAILY ELECTRIC USAGE



Hourly data opens a window into how she lives

NANCY 2014 WEEKDAY HOURLY USAGE



Profiling every customer ...

FOR A 1M HOUSEHOLD UTILITY

**2 minutes /
Household**

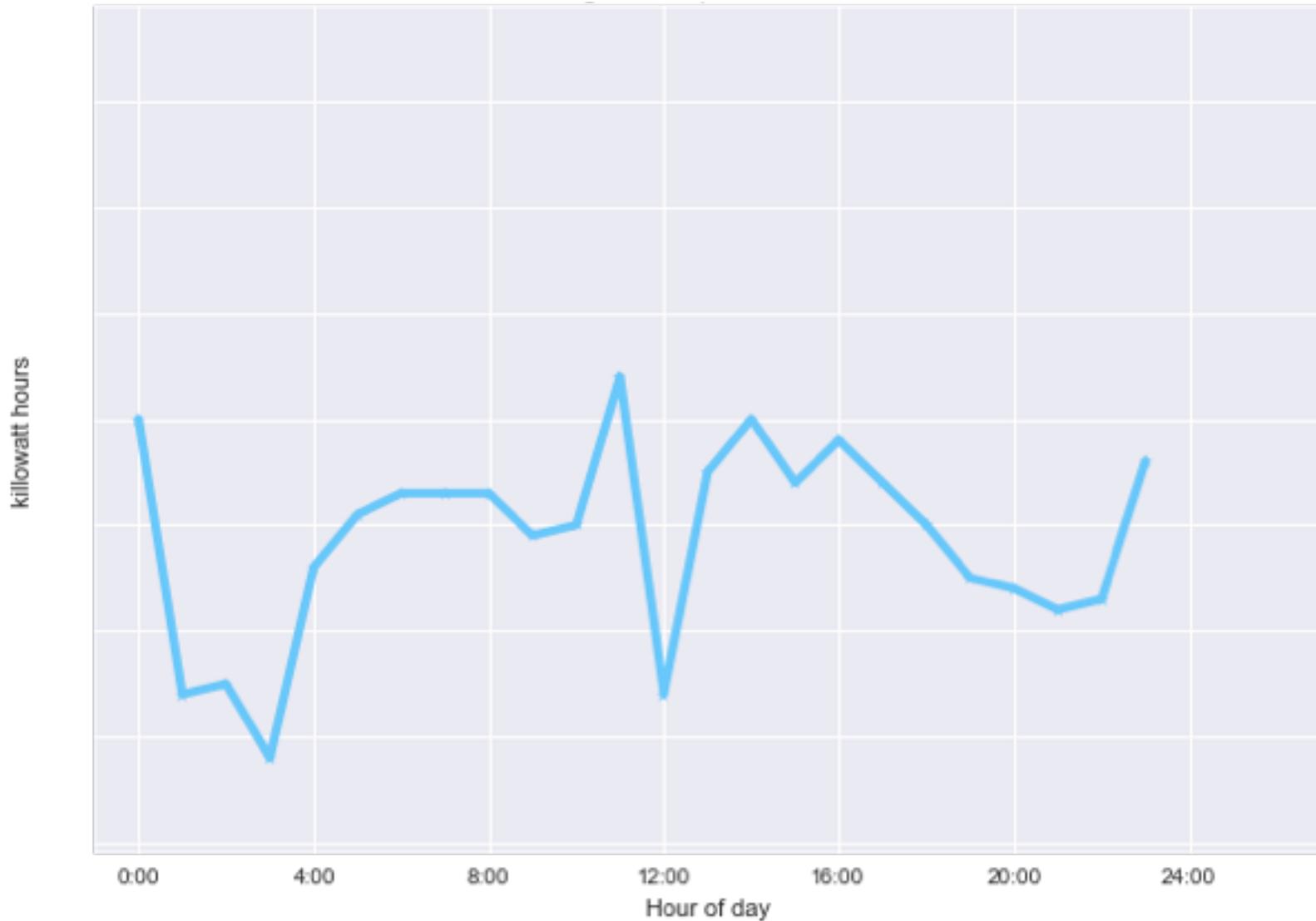


**1M
Households**

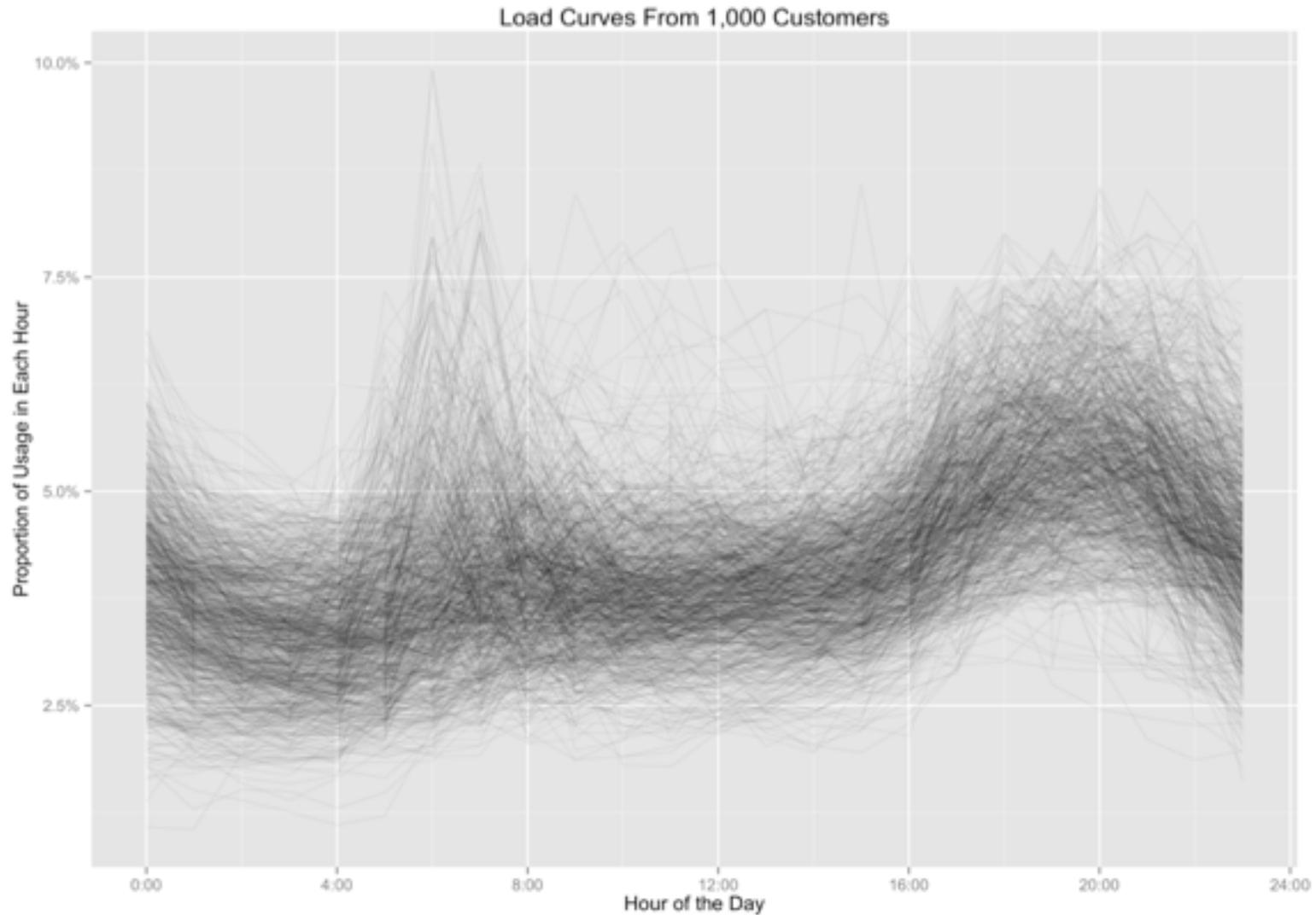


**961
years**

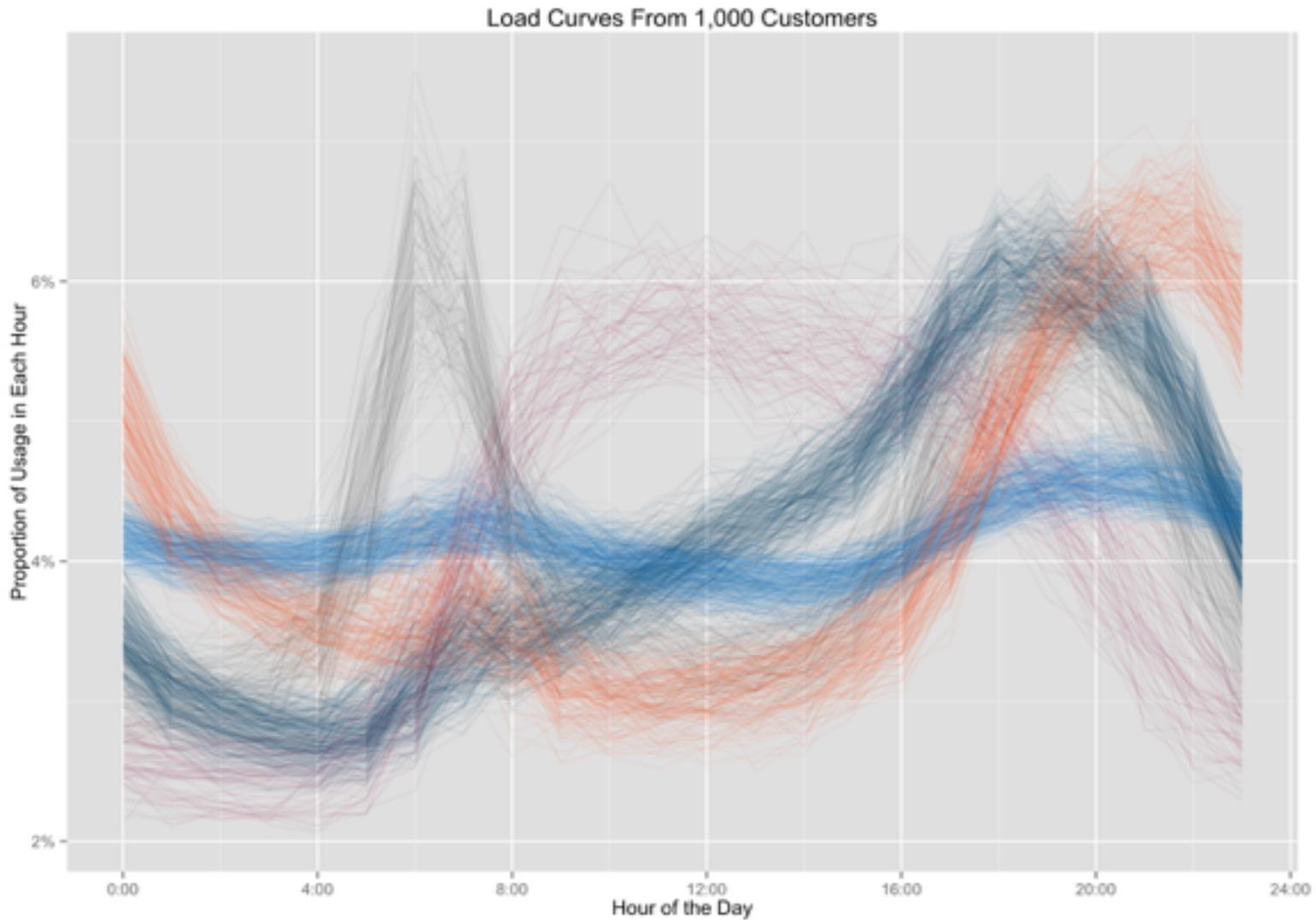
Smart Meter Data



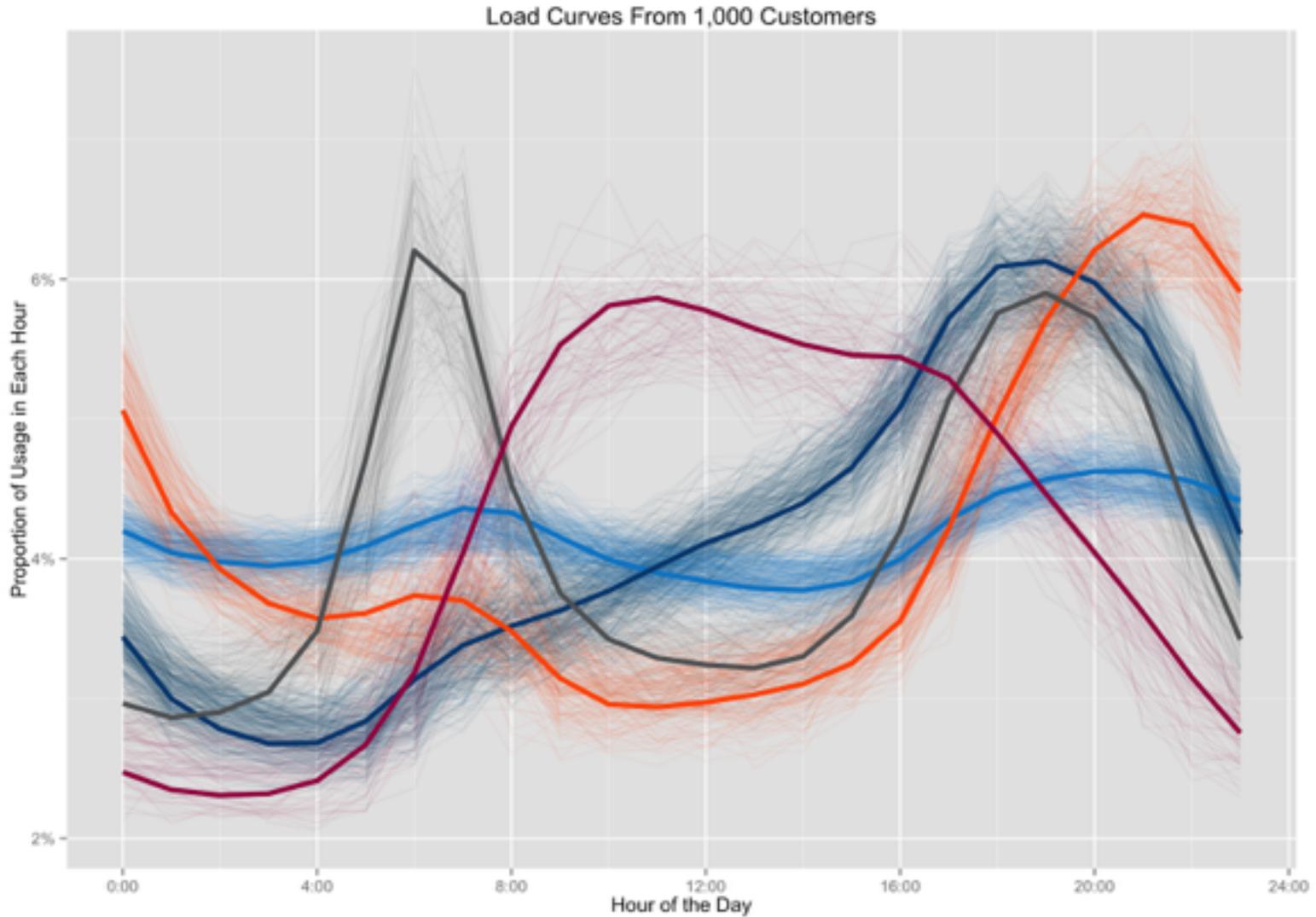
Load Curves – All Customers



Load Curves – After Clustering

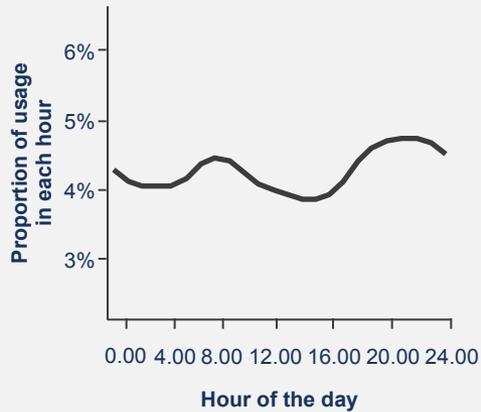


Load Curves – Cluster Centroids

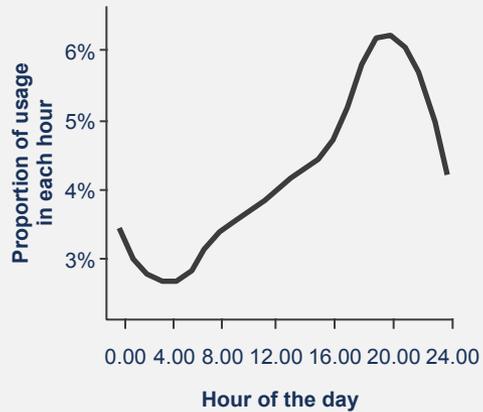


Enter the AMI archetypes

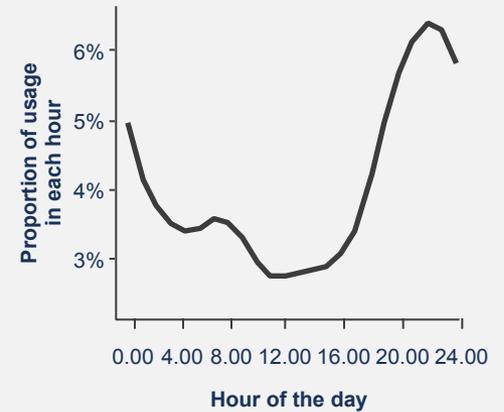
Steady Eddies



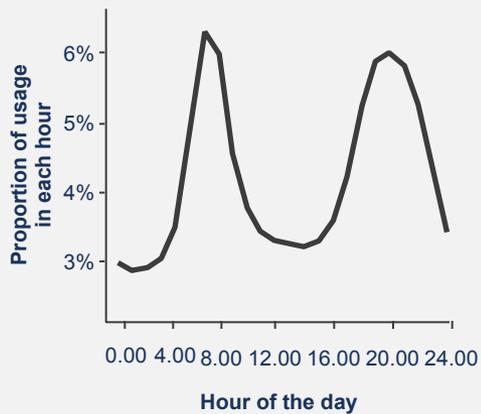
Evening Peakers



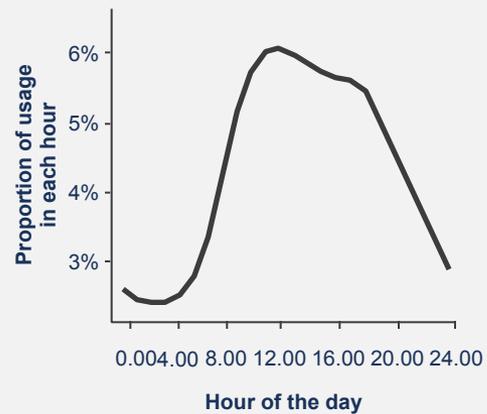
Night Owls



Twin Peaks

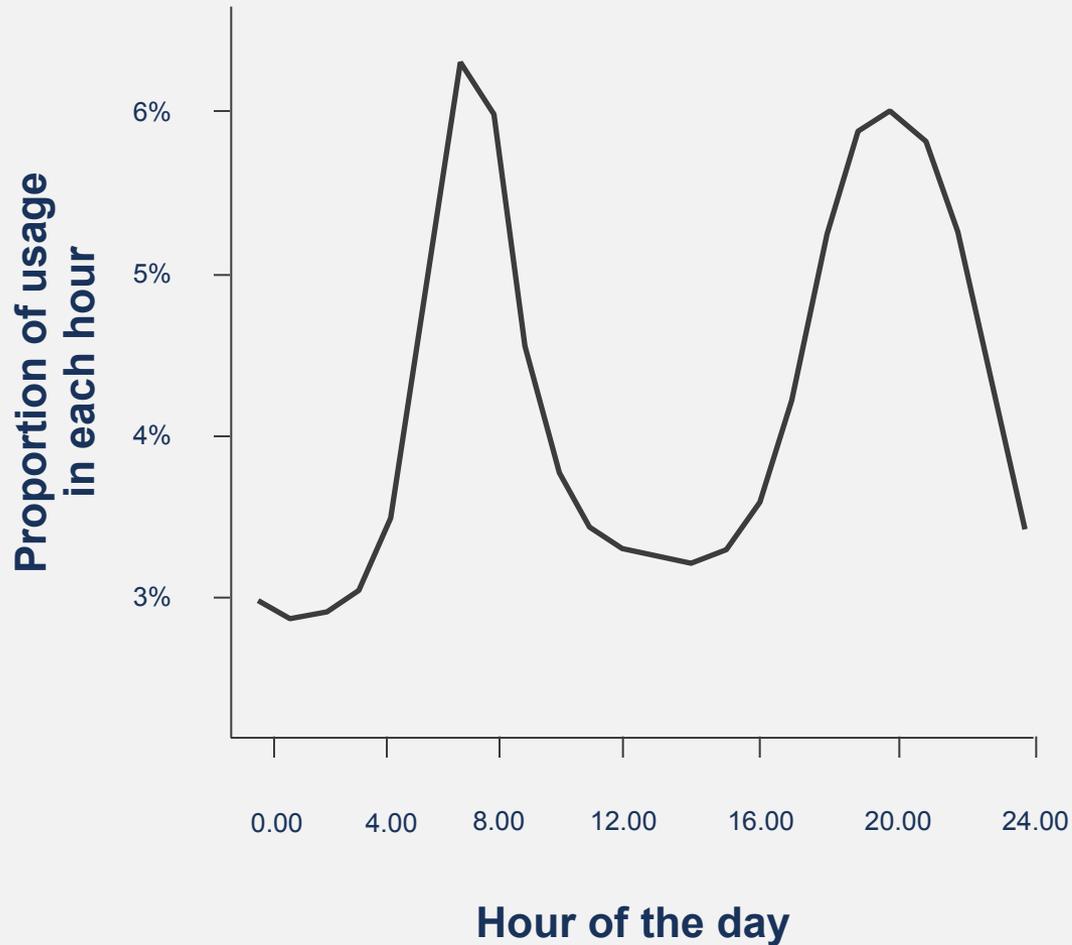


Daytimers



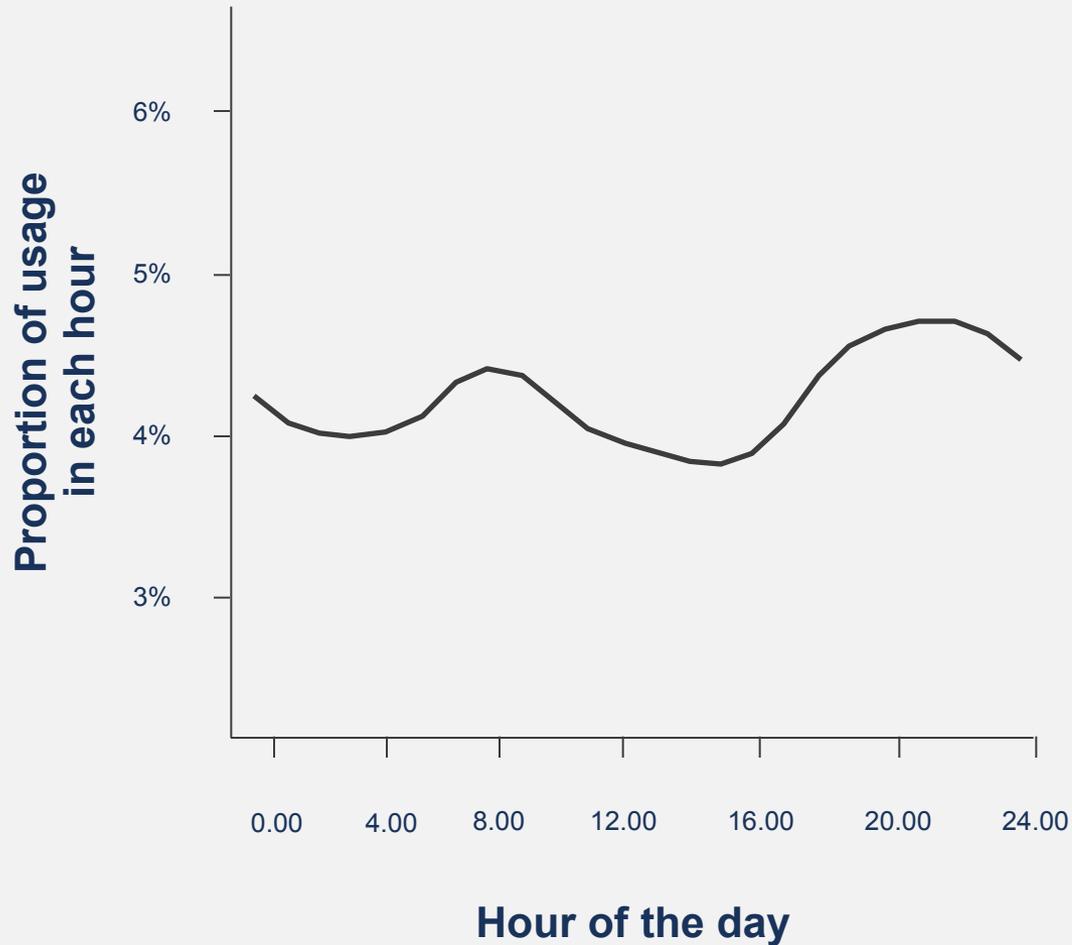
Load Curves – “Twin Peaks” Archetype

Twin Peaks



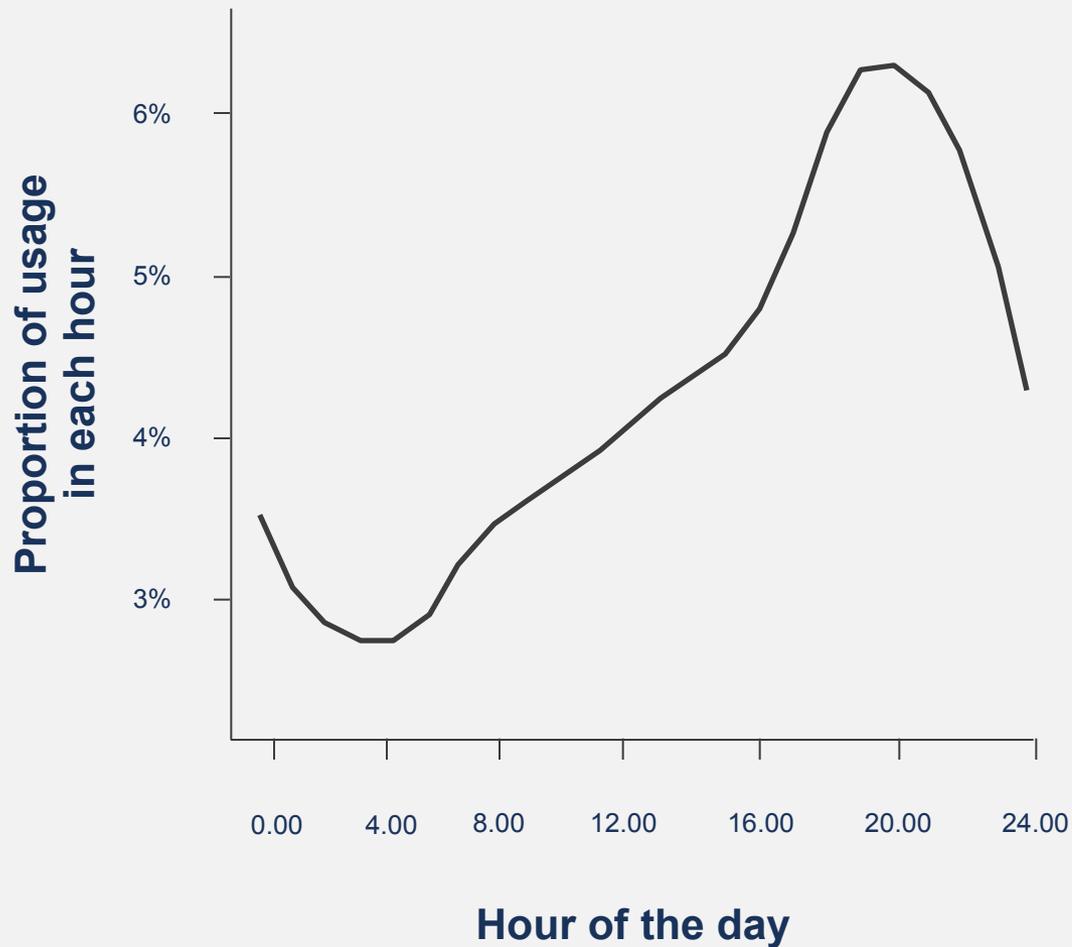
Load Curves – “Steady Eddies” Archetype

Steady Eddies



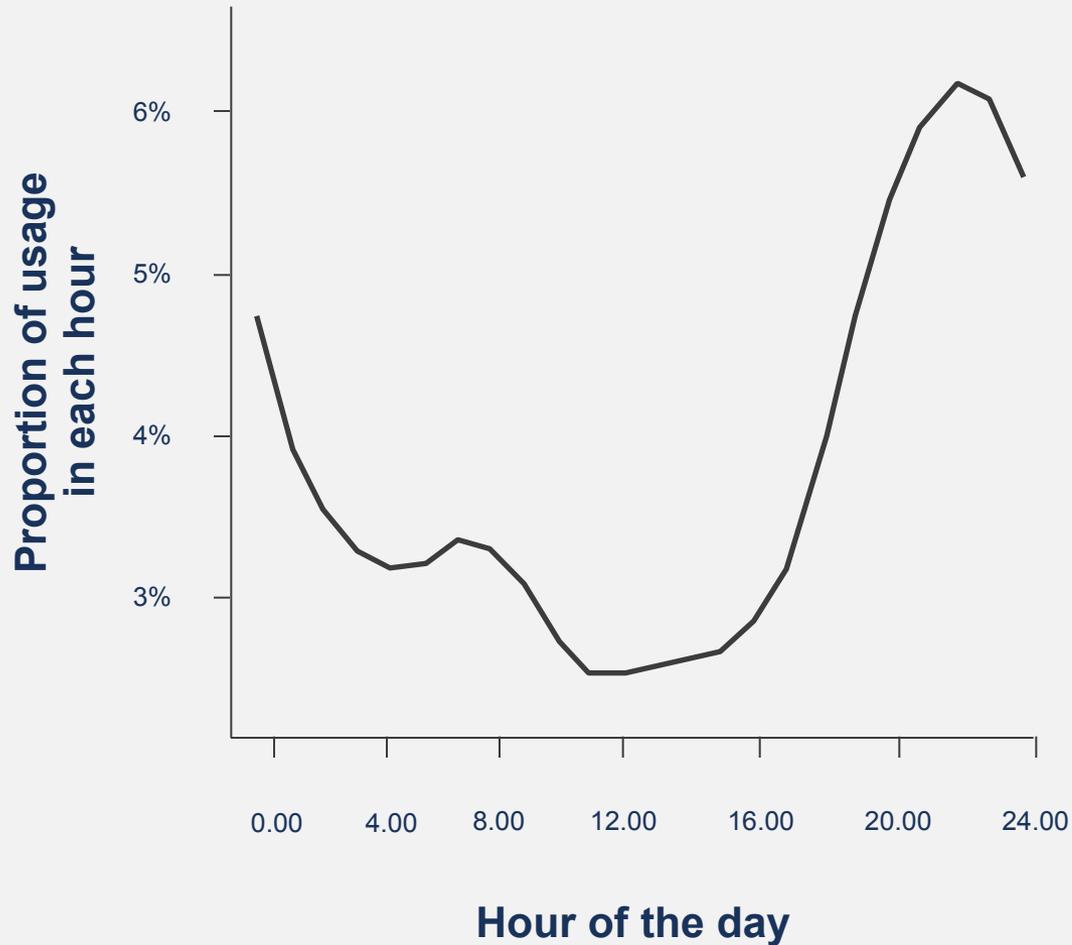
Load Curves – “Evening Peakers” Archetype

Evening Peakers



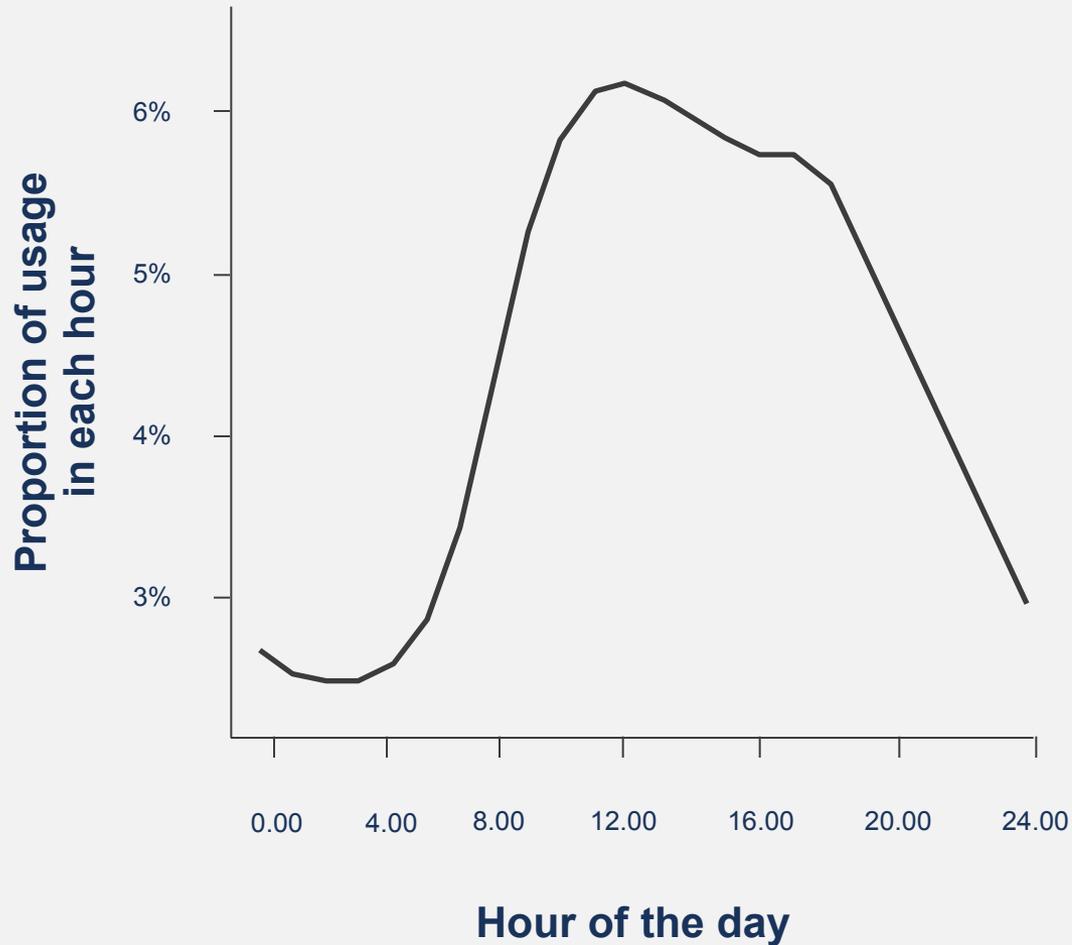
Load Curves – “Night Owls” Archetype

Night Owls



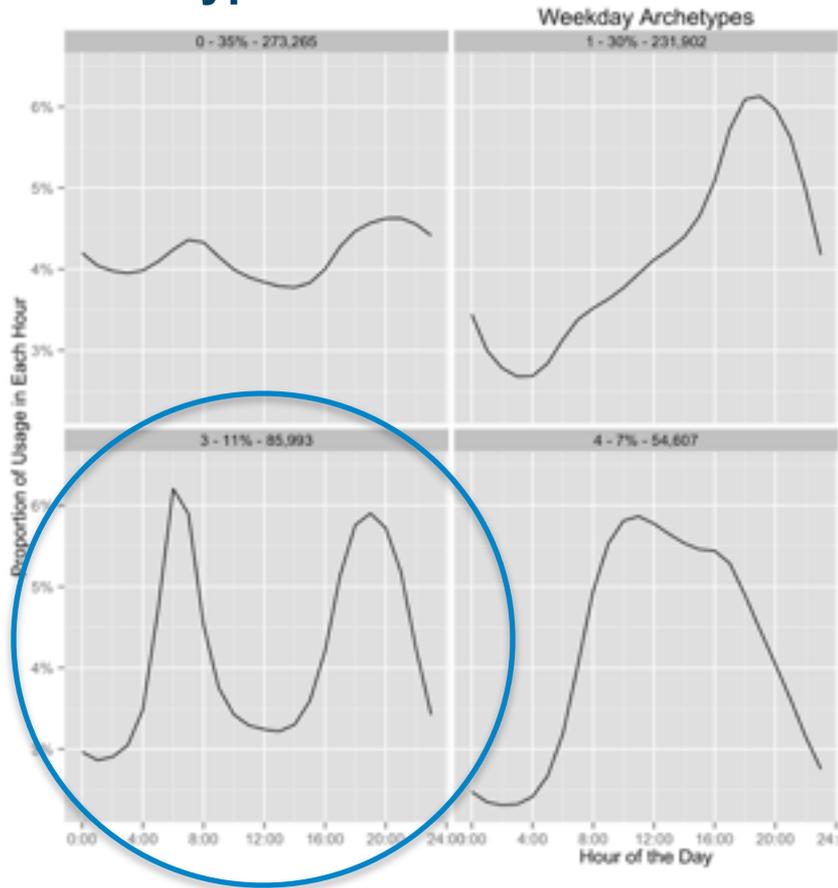
Load Curves – “Daytimers” Archetype

Daytimers

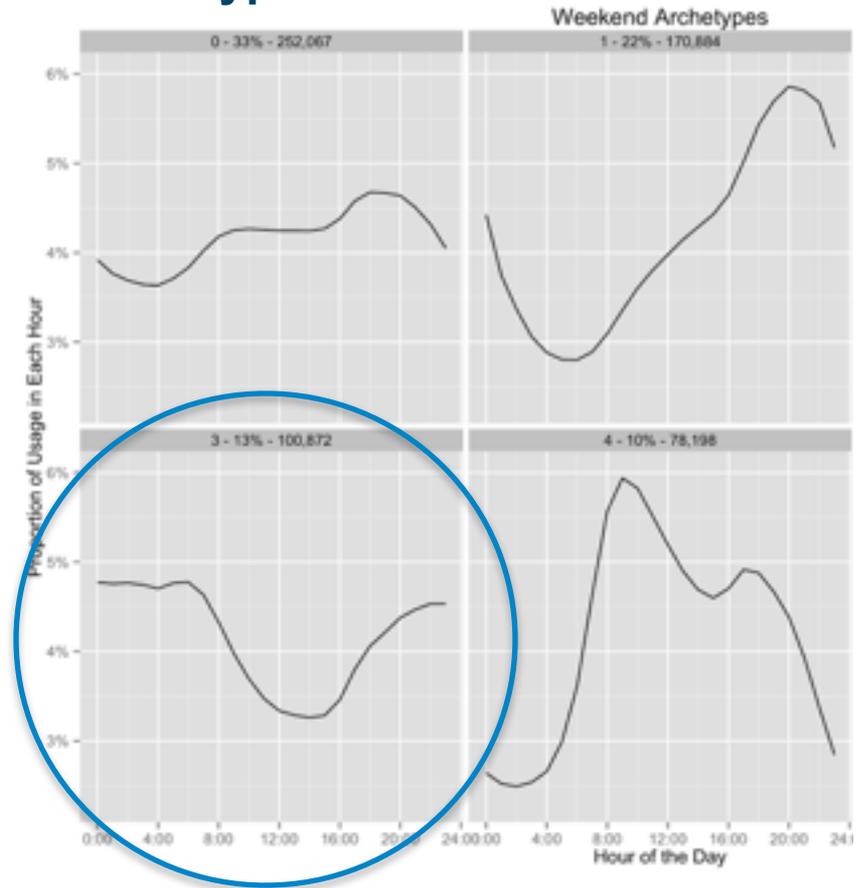


Load Curves – Weekday vs. Weekend

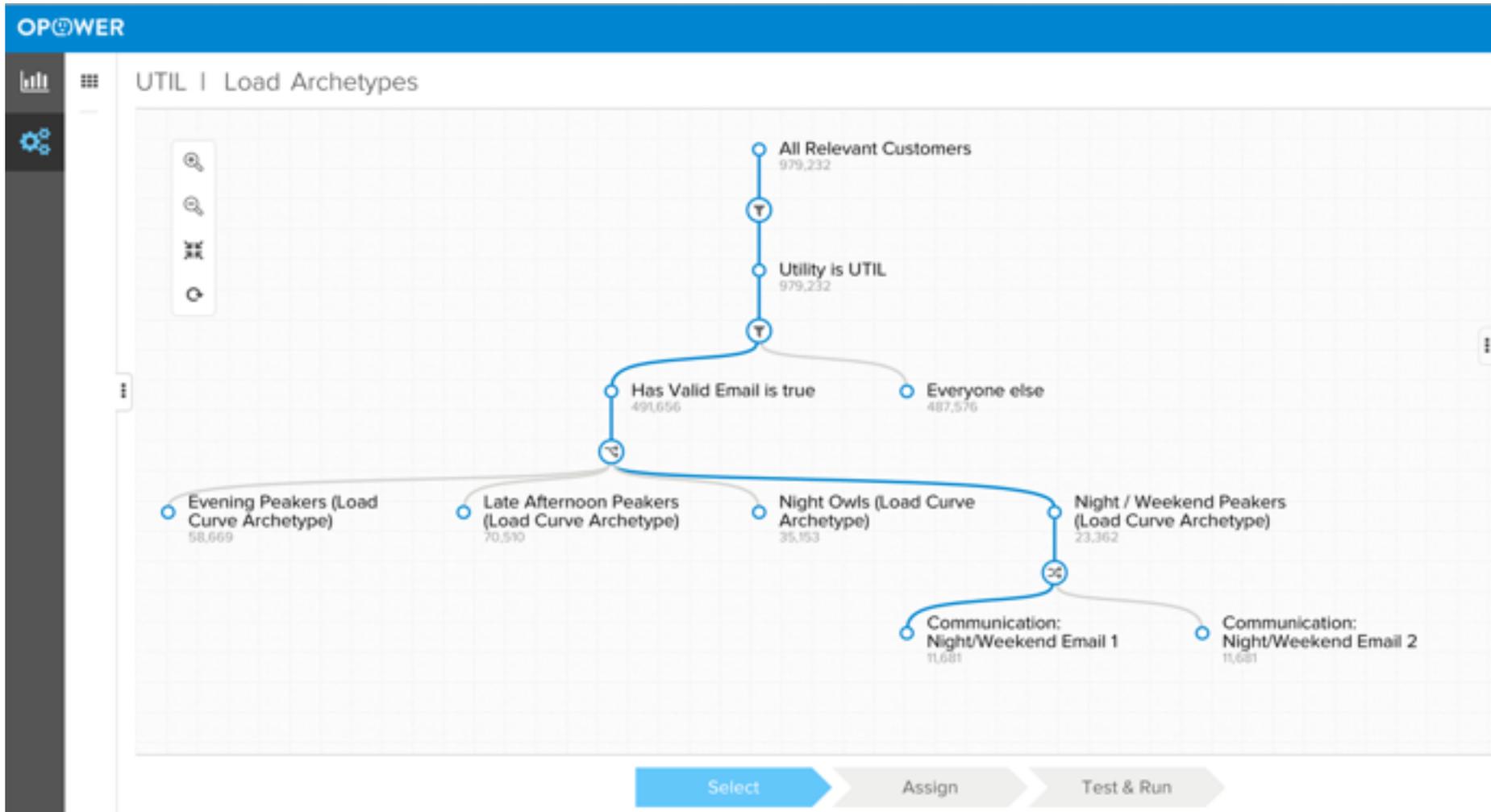
Most common weekday archetypes



Most common weekend archetypes



Segment Customers



Target Messaging: Afternoon Peakers

Having trouble viewing this email? [Click here](#)

UtilityCo

Please join your neighbors in reducing energy use on Wednesday afternoon, **August 18th from 2–7pm.**

ⓘ You used MORE than similar homes on the last peak day.

Last peak day: Wednesday, June 12th 2–7pm

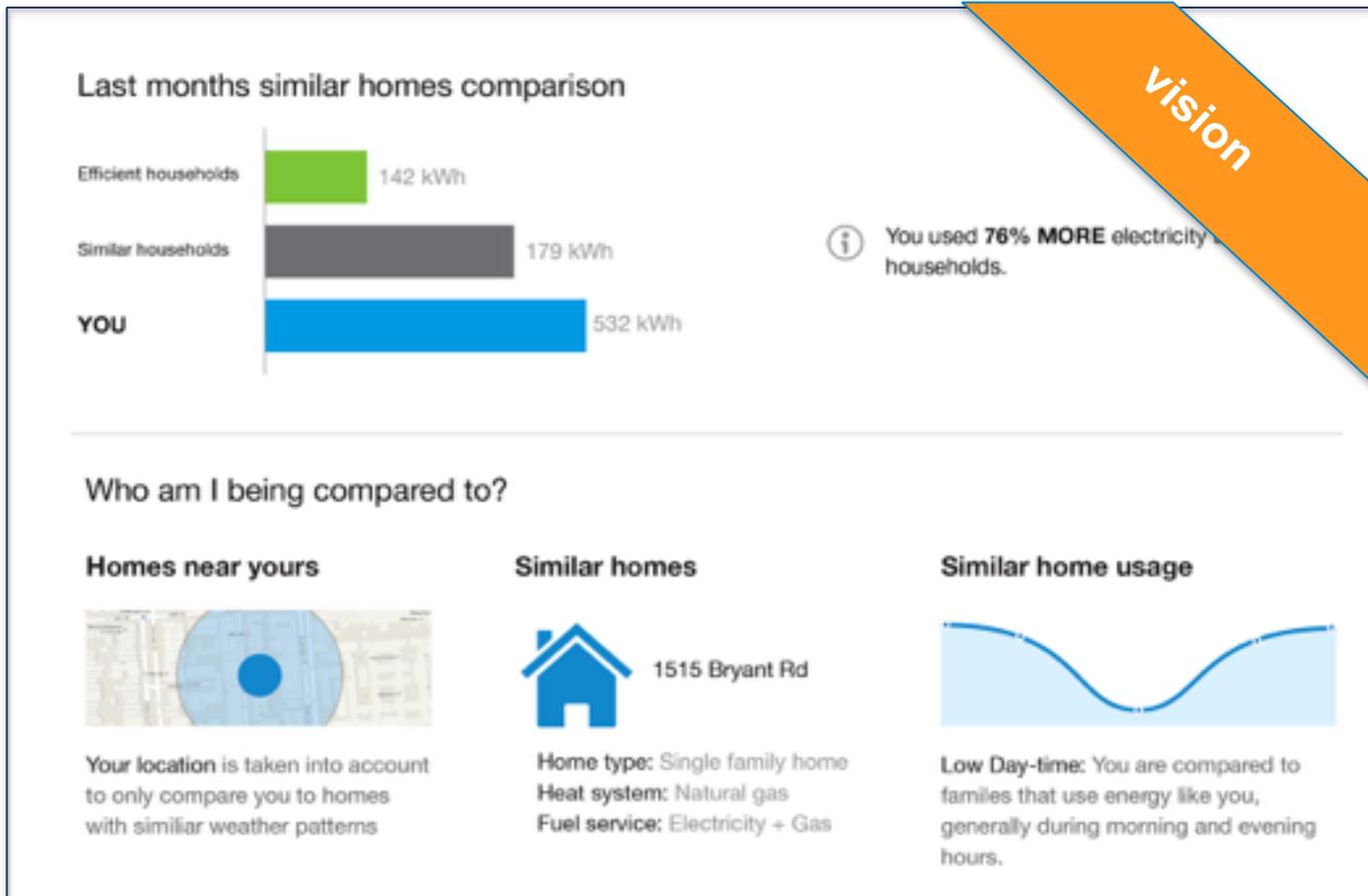
Category	Energy Use (kWh)
Efficient Neighbors	2 kWh
All Neighbors	5 kWh
YOU	10 kWh

This is an alert from UtilCo: Tomorrow, Wednesday, July 10th is a peak day. From 2 PM to 7 PM, join UtilCo customers by reducing your electric use. Simple ways to save on peak days include postponing dishwashing and other large appliance use until the peak day is over. Thank you for helping us save! To opt out of phone alerts, press 9.



Drive Improved Personalization

Help drive acceptance of neighbour comparison



Drive Improved Personalization

Recommendations tailored to profile type



The figure shows four energy usage profiles. From left to right: 'High Morning 6a-noon' with a peak in the morning; 'All Day consistent' with a flat line; 'Low Daytime noon-6p' with a dip during the day and peaks in the morning and evening, highlighted in blue and labeled 'YOU'; and 'High Evening 6p-midnight' with a peak in the evening. An orange diagonal banner with the word 'vision' is overlaid on the right side of the figure.

NEW INSIGHT!
We've identified you as an **Low Daytime User**.
89% of your weekday electricity use is in the morning and evening.

Efficient All-day energy neighbors save by:

- Programing their thermostats**
A programmable thermostat makes it easy to save energy while keeping your home at a comfortable temperature. Programming your thermostat to fit the season and your family's schedule can help you save on your annual energy bill.
SAVE UP TO \$20 PER YEAR
- Closing their shades in the summer**
Sunlight passing through windows heats your home and makes your air conditioner work harder. You can block this heat by keeping blinds or drapes closed on sunny days.
SAVE UP TO \$35 PER YEAR
- Turning off lights and appliances when they leave**
Many electronic devices continue to draw power even when they are turned off. By unplugging devices and chargers when they are not in use, you can avoid paying for this extra energy.
SAVE UP TO \$50 PER YEAR