

Welcome to the NW Regional Public Utility Behavior Based Energy Efficiency Programs Conference Call

We will get started in a few minutes.

To mute your line press *6. To unmute, press *6 again.

July 21, 2011

Facilitated by Summer Goodwin, BPA and Skip Schick,
contractor to BPA





Home Energy Reports Implementation of OPOWER Project

July 21, 2011

Lars Henrikson
Conservation Resources Division

www.seattle.gov/light/conserve

Service Territory and Fast Facts

Seven suburban cities, as well as the City of Seattle

Burien, Lake Forest Park, Normandy Park, Renton, SeaTac, Seattle, Shoreline, Tukwila and some parts of unincorporated King County.

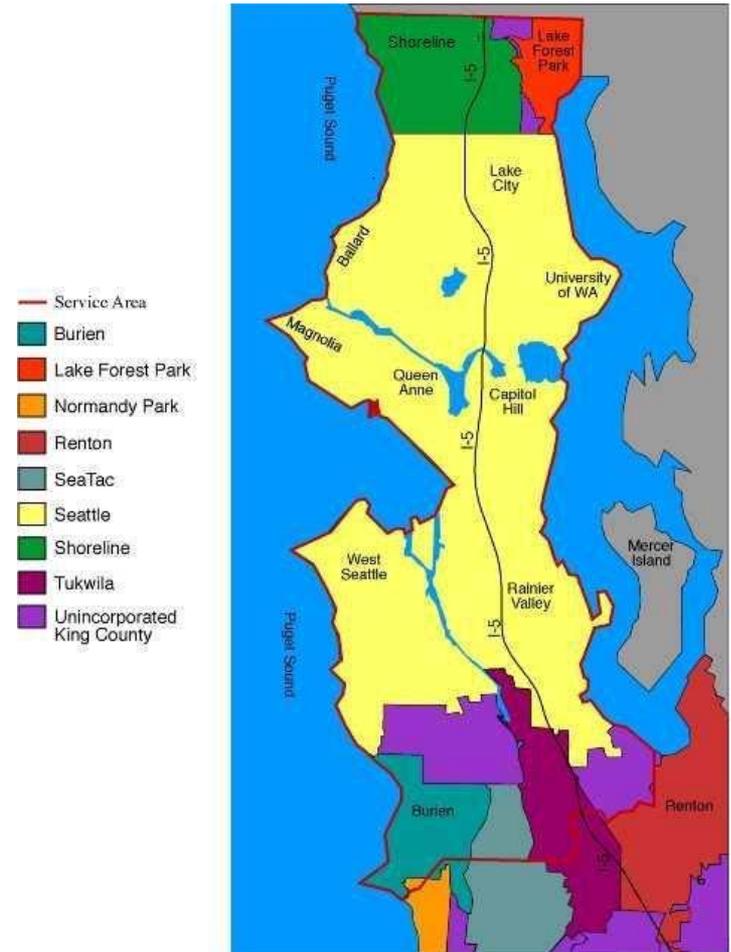
400,000 Commercial, industrial and residential accounts

Over 700,000 people served

\$1 billion budget

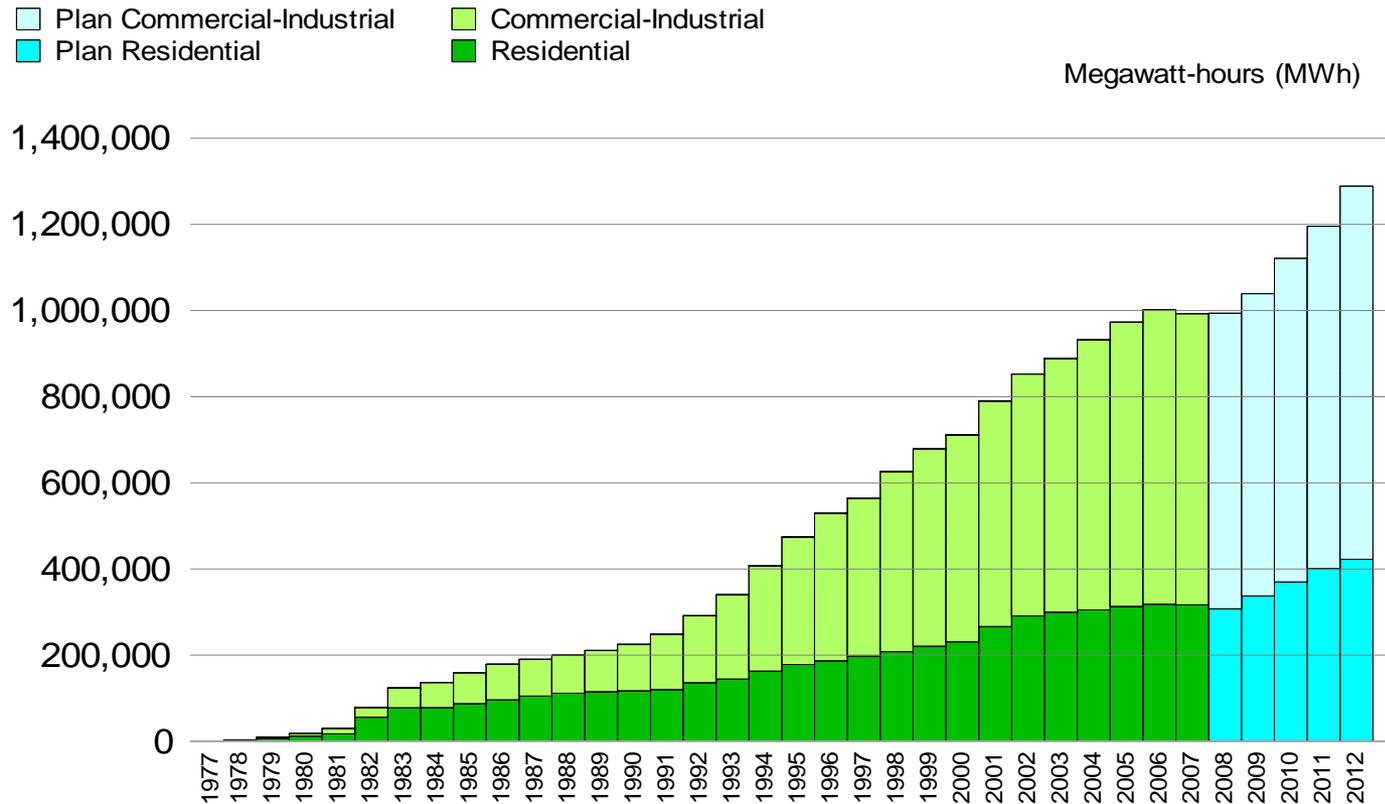
Generate 6,300,000,000 kWh/year

Retail load 9,708,690,000 kWh/year



Ramping Up Conservation

Cumulative Energy Savings



SEATTLE CITY LIGHT'S REASONS FOR PURSUING

Long Conservation History

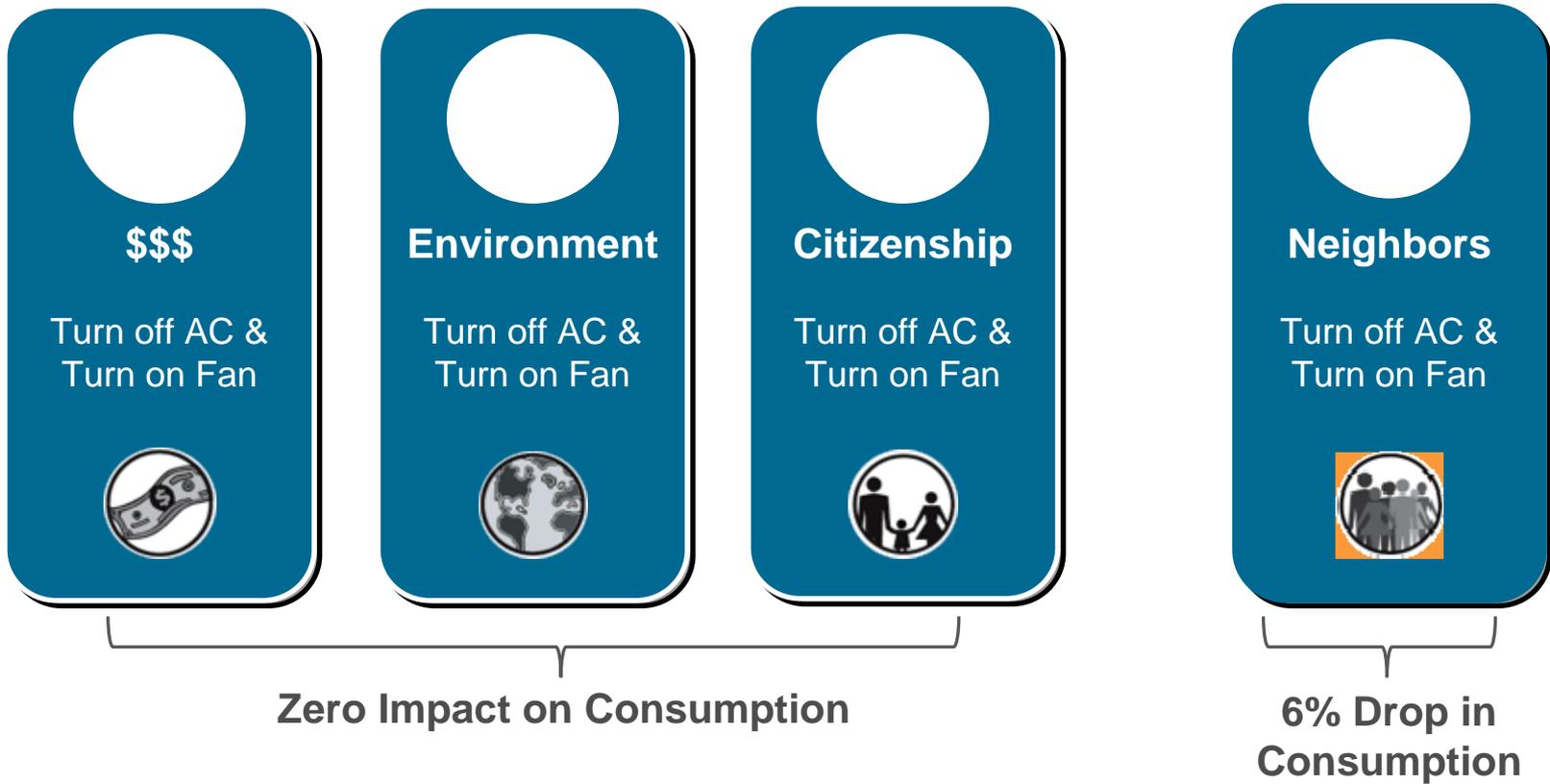
- Programs in place since 1977
- Mature market for measures
- Interest in testing new approaches, tried a couple
- Behaviors have changed

Goals

- kWh savings
- Making energy relevant and interesting to consumers
- A complement to measures – minimizing take back effect.
- Engage customers in a dialogue – for better or worse!



Behavioral Science + Energy Efficiency



PROGRAM OVERVIEW

History at Seattle City Light

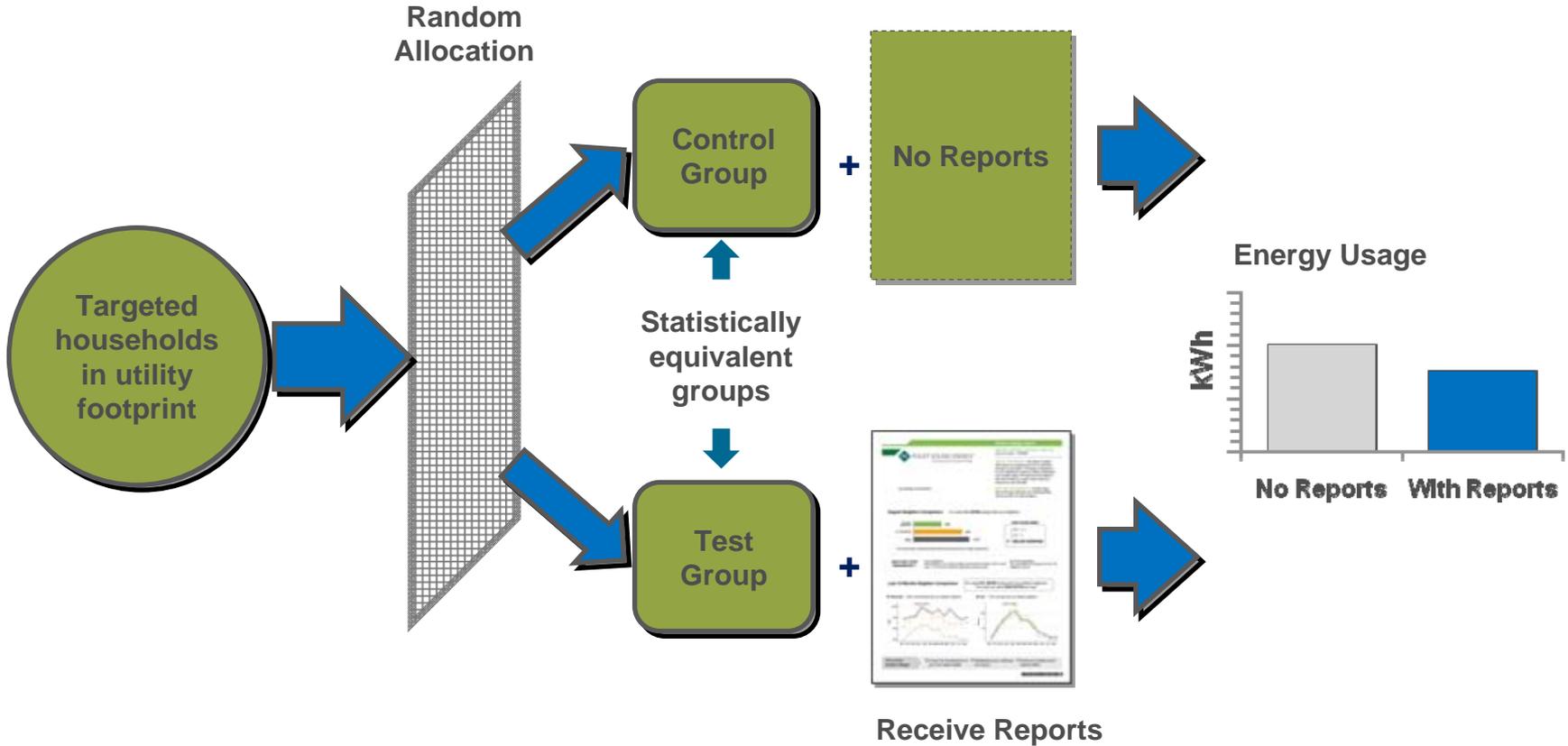
- 20,000 single family residential customers selected, throughout territory.
- Home Energy Reports Program launched in October 2009.
- 50,000 selected to serve as control – these do not receive reports
- Both groups randomly selected from same population to ensure unbiased selection. Did not include the 25% lowest electricity users.
- Recently, the program was expanded to add 30,000 to the original group.

PROGRAM OVERVIEW

Preparation

- Utility & third party data collected includes: program participation data; parcel data from the county assessor. Energy consumption data uploaded to OPOWER weekly.
- Conservation messages/tips defined.
- Report layout options available.
- Web option now built out and available.
- Reports go out shortly after the bills, every two months.
- Customer Service Reps need to be up to speed and ready for the volume.

Clearly Defined Measurement & Verification Approach



Residential Efficiency Report

Energy Efficiency Tips Normative Comparison

Action Steps | Personalized tips chosen for you based on your energy use and housing profile

Quick Fix | **Smart Purchase** | **Great Investment**

Last Month Neighbor Comparison | You used **27% MORE** electricity than your neighbors.

Efficient Neighbors: 623 kWh*
All Neighbors: 835
YOU: 1060

* kWh: A 100-Watt bulb burning for 10 hours uses 1 kilowatt-hour.

How You're Doing:
You used more than average.
Turn over for easy ways to save

Who are your Neighbors?

- All Neighbors**: Approximately 100 occupied, nearby homes that are similar in size to yours (avg 890.39 sq ft) and have electric heat.
- Efficient Neighbors**: The lowest electricity-use 20% of all neighbors.

SAVE UP TO \$165 PER YEAR

SAVE UP TO \$25 PER 100-BULB STRAND PER SEASON

Save up to 40% on appliance energy cost

Seattle City Light Home electricity report
Account number: [redacted]
Report period: 04/10/09 - 06/09/09

David Smith

Last 2 Months Neighbor Comparison | You used **47% MORE** than your efficient neighbors.

HOW YOU'RE DOING
Great! You're doing **GOOD**!

WHO ARE YOUR "NEIGHBORS"?

- All Neighbors**: Approximately 100 occupied, nearby homes that are similar in size to yours.
- Efficient Neighbors**: The lowest electricity-use 20% of all neighbors.

Last 12 Months Neighbor Comparison | You used **54% MORE** electricity than your efficient neighbors. This costs you about **\$20 EXTRA**.

Personalized Action Steps

- Recycle your second refrigerator
- Switch to compact fluorescent bulbs (CFL)
- Look for the ENERGY STAR label

Personal Comparison | I have your electricity use this year compared to last year.

About This Graph
This bar chart shows how much electricity you've used so far this year and compares that amount to the same period last year.

Your Progress
So far this year, you've used **15% LESS** electricity than last year.

Action Steps | Personalized tips chosen for you based on your energy use and housing profile

Quick Fix
Something you can do right now:

- For your **refrigerator for comfort and savings**: Heating and cooling your home can account for more than 60% of your total energy use. By setting your thermostat appropriately, you can be comfortable and save energy. When you are away from home or sleeping, change the thermostat to an energy-saving level—a 5-degree adjustment from your desired temperature is a good rule of thumb. Consider a programmable thermostat for added convenience.

Smart Purchase
New stuff is worth a bit:

- Go with **LED holiday lights**: Holiday lights can add drama to your home, but they also increase your electricity bill. If you are in the market for new holiday lights, instead of purchasing standard incandescent bulbs, opt for new technology: LED. Energy Guide (LED) lights. Although LED lights may cost more up front, they save money in the long run, because they are more energy-efficient and last longer. Also—they are available in a wide range of colors and bulb shapes.

Great Investment
A dollar for the savings:

- Look for the **ENERGY STAR** label: The Department of Energy tests the energy efficiency of many home appliances, and the best earn the ENERGY STAR label. Replace your old appliances with ENERGY STAR for long-term savings—the older your current appliance, the more you will save!

SAVE UP TO \$165 PER YEAR

SAVE UP TO \$25 PER 100-BULB STRAND PER SEASON

Save up to 40% on appliance energy cost

Now Seattle City Light

206-694-3000
www.seattlecitylight.gov

For more information please call 206-694-3000 or visit www.seattlecitylight.gov/energytips

Positive Energy

Nuts and Bolts

Data Delivery

- Data transfer protocols developed
- Data field naming clarification
- Weekly data uploads from SCL to SFTP site

Choosing Participants

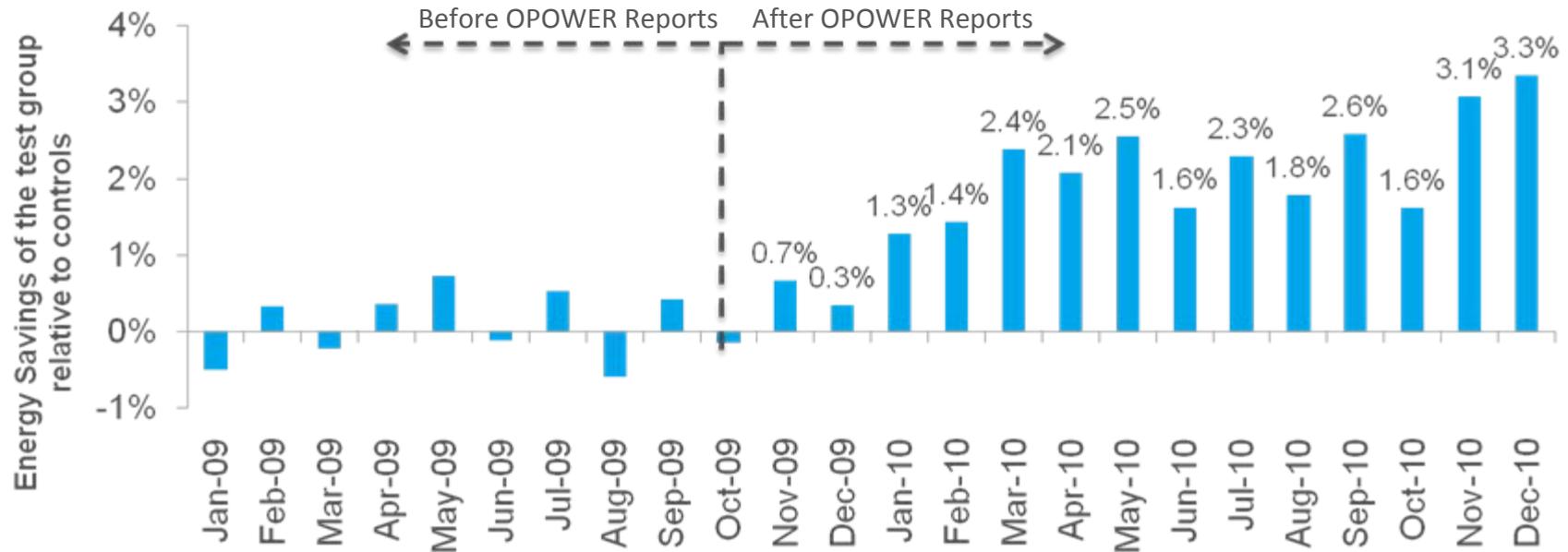
- Random for evaluation purposes
- Maximizing kWh Savings
- Special Considerations?

Messaging and Report Development

- Developing “welcome” insert
- Developing report look and feel
- Review and editing of OPOWER efficiency tips
- Ongoing updating of tips to reflect changes in programs

Energy savings among the treatment population are sustained and improving

SCL Monthly Percentage Savings

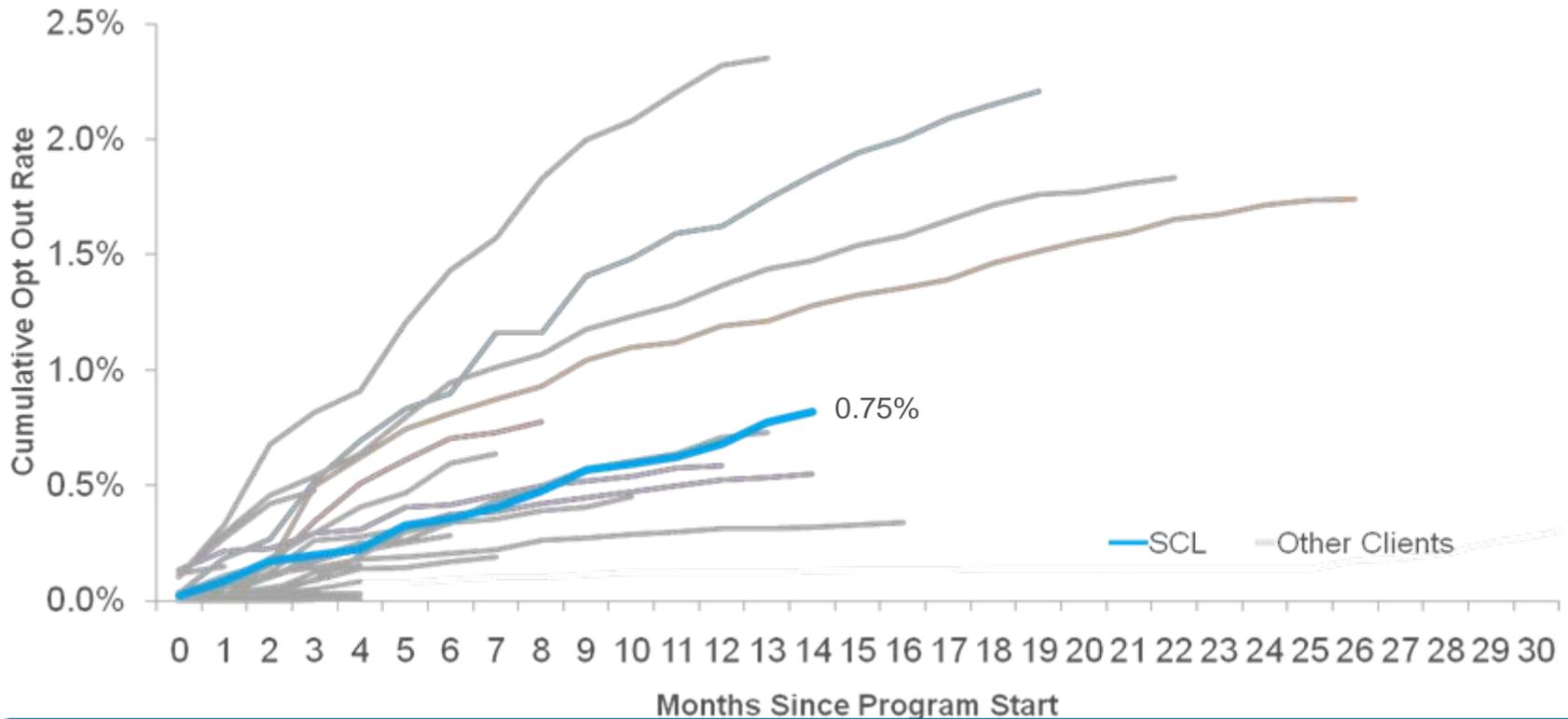


- The pretreatment differences between the test and control group are indiscernible and statistically insignificant
- The post-treatment results demonstrate a clear trend of increasing savings among the test group relative to the control group
- Spikiness in savings results from ~60 day meter reads

Source: OPOWER, Data through 12/31/2010

SCL has a relatively low opt out rate

SCL Comparative Opt Out Rate



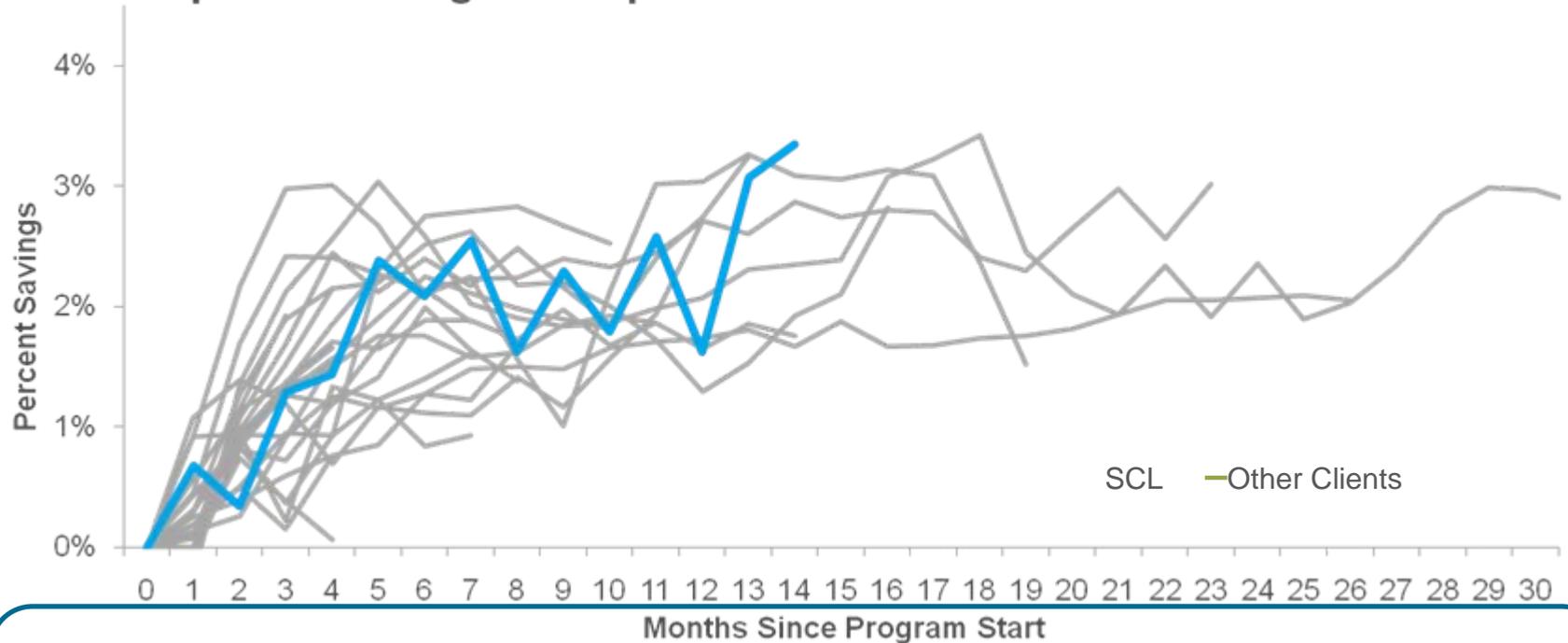
- Over 99% of participants see value in and remain in the program

Source: OPOWER, Data through 12/31/2010

SCL following normal OPOWER performance trajectory

SCL Households saving 2% to 3% in energy savings, recently 4%

SCL Comparative Program Impact



- OPOWER programs typically ramp up to steady-state savings within 3-4 months, but SCL's program took 5-6 months.
- The program is currently performing within the expected range

2010 program savings totaled 5.4 GWh, and fiscal year savings totaled 3.8 GWh

Monthly Program Impact (MWh)

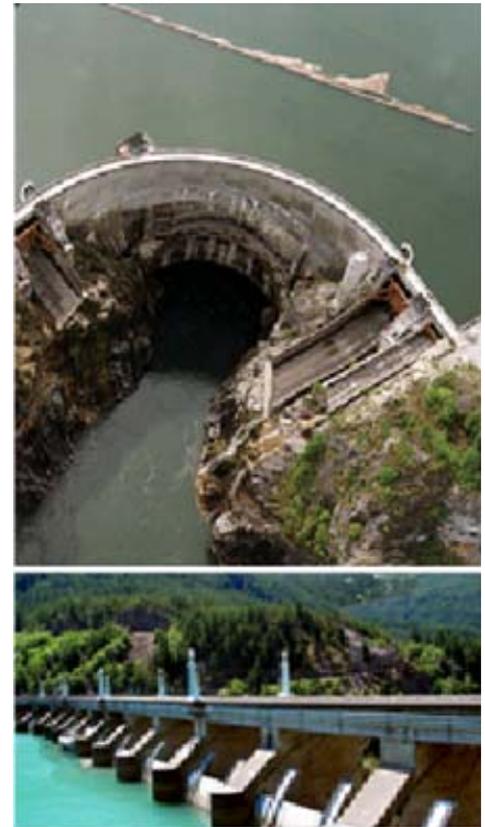


Continuing Participants (000)	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.5	18.4	18.3	18.2	18.2
Monthly Savings per HH (kWh)	N/A	6.6	4.3	18.8	18.5	30.5	23.8	27.1	15.0	20.0	14.7	20.0	13.8	29.7	42.3

Source: OPOWER, Data through 12/31/2010

CURRENT STATUS AND NEXT STEPS

- Program performing at its highest rate yet to date. Per household savings reached 55 kWh/month in March. Program saved 1 million kWh in March alone.
- Program savings from inception through Q-1, 2011: 7.9 million kWh.
- Expanded program to additional 30,000 customers
 - Includes Community Power Works segment
- Expand Web engagement possibilities
- Try new approaches: post-its, program promotions
- Third party evaluation needed to confirm savings.
 - This is in the works
- Monitor experiences in other areas
- Pursuing credit/reimbursement with BPA



LESSONS LEARNED AND CONCLUSIONS

Lessons Learned

Your utility may not be ready - procurement, legal, communications, executive.

A strong advocate is needed.

An enthusiastic conservation-focused call center is very important.

Some customers will be unhappy, but often can be talked through. Many respond.

Conclusions

Normative messaging seems effective in driving energy savings.

Savings appear significant and cost effective.

A good marketing medium for programs

An evolving and improving field.

Public utilities should consider such an approach – seems a good fit.



Contact:

Lars Henrikson
Energy Planning Analyst
Seattle City Light
206-615-1683
lars.henrikson@seattle.gov

Next Call
No call scheduled for August

For more information contact
Summer Goodwin, sggoodwin@bpa.gov
503-230-3158

All notes are posted to the BPA EE Behavior change page

Check out the Behavior Change group on Conduit (www.ConduitNW.org)

