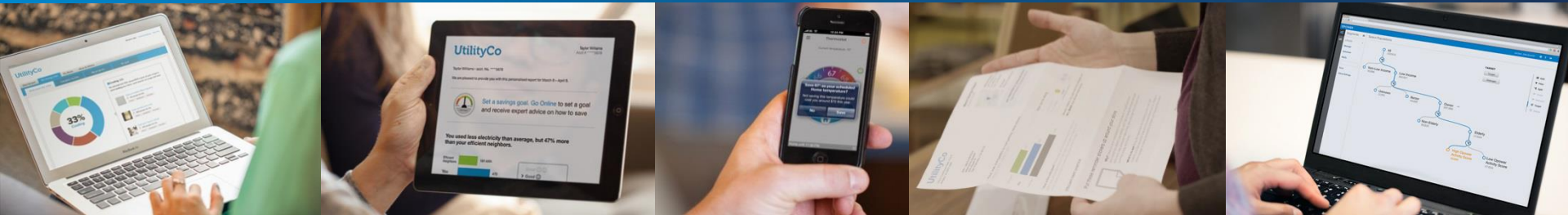




The Role of the **Engaged Consumer** in in Europe's Energy Trilemma

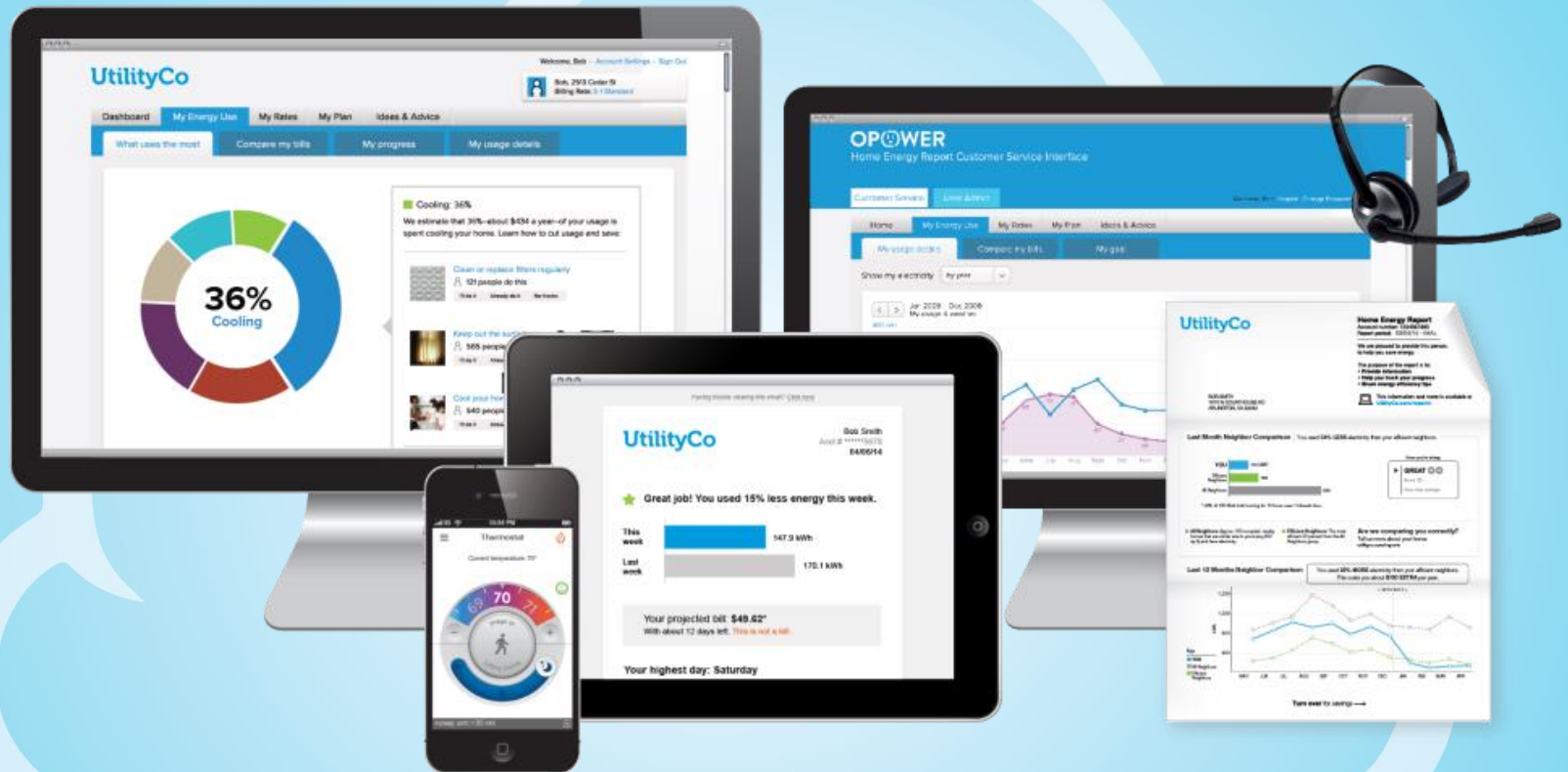
OPOWER'S CUSTOMER ENGAGEMENT PLATFORM POSITIONS UTILITIES AS TRUSTED ENERGY ADVISORS TO THE CUSTOMERS THEY SERVE.



8 countries
52 million customers

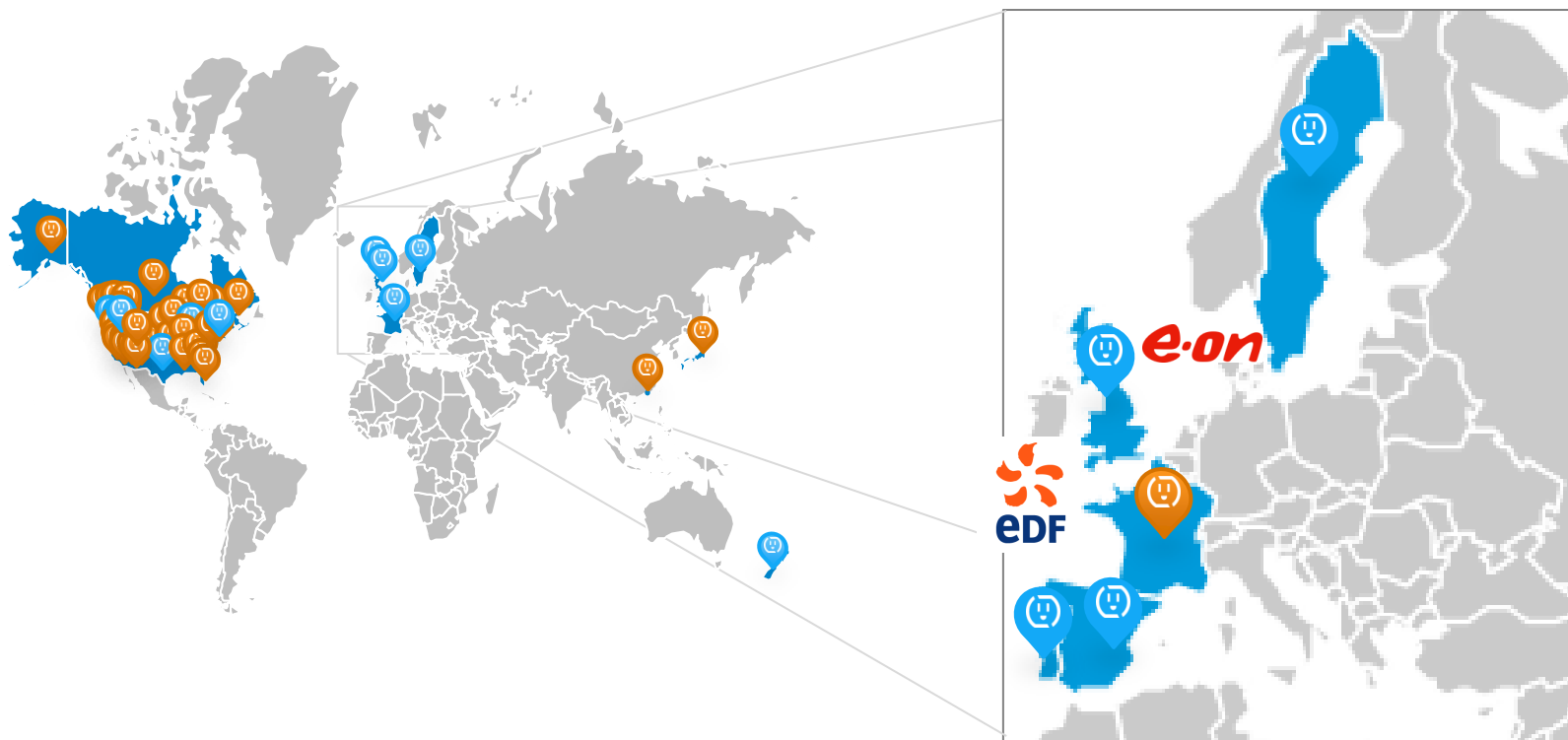
95+ utilities
300 billion meter reads

The Opower Consumer Engagement Platform..



OP@WER

Opower works with 95+ utilities around the world to engage 52 million customers with their energy use



In regulated...



USA



Canada



France



...and competitive markets



UK



Mercury Energy

New
Zealand

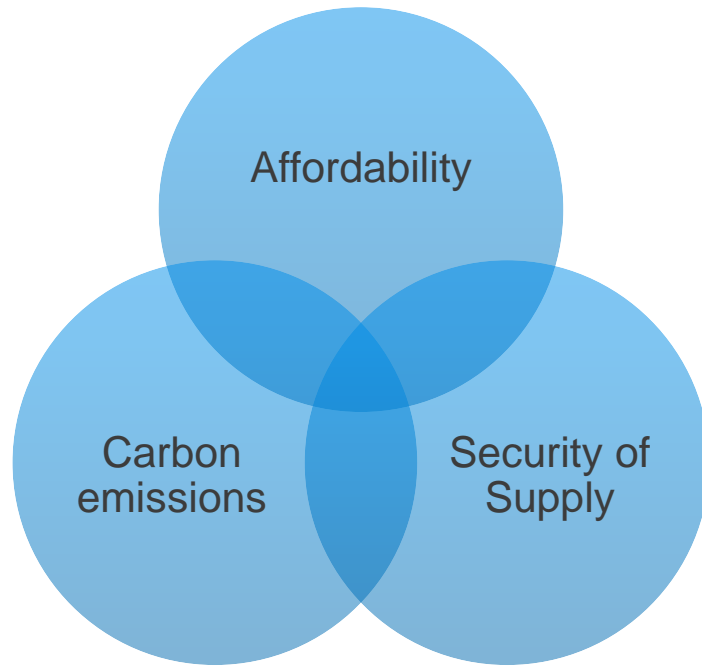


USA



**The European Energy
Industry is facing a
transformational challenge**

The European utility market is experiencing a fundamental challenge



A societal tri-lemma

EED



RENEWABLES



The European utility market is experiencing a fundamental challenge

Not saving enough

EU Energy-Saving Plans Mainly Fall Short

Posted by Paul Fiddian - Enviro News' Lead Reporter on 24/04/2014 - 08:55:00



Too expensive

Germany's Energy Poverty:

How Electricity Became a Luxury Good



EED



RENEWABLES





Customers are the key

Solutions for this challenge will have the customer at their very heart.



Solutions for this challenge will have the customer at their very heart.



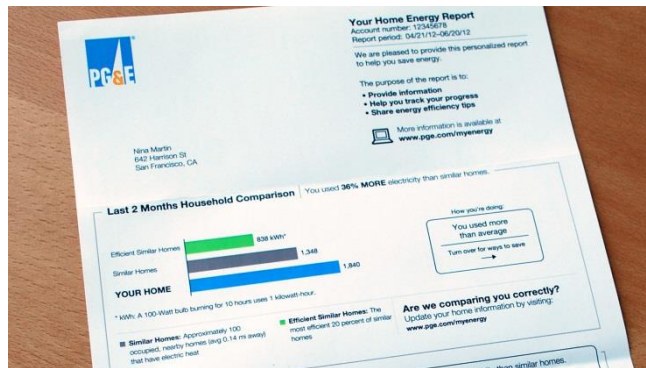
But the energy suppliers don't really engage their customers...

**....and they only think about their energy supplier for
~9 minutes per year ...**

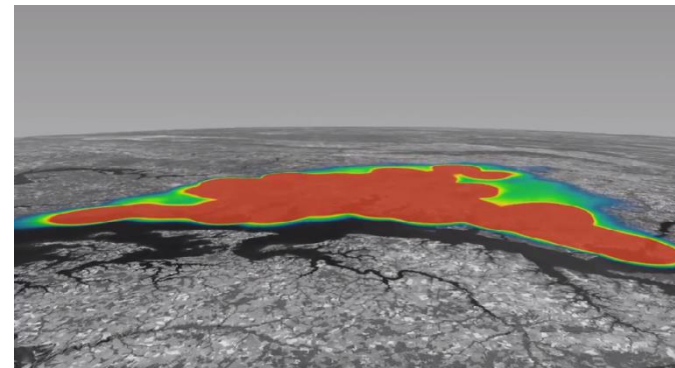
Solutions for this challenge will have the customer at their very heart.



Energy Efficiency (Behavioural Energy Efficiency)



Grid Optimization (Behavioural Demand Response)





Behavioural Energy Efficiency

The BEE Potential in Europe

An Introduction to applied behavioral science



Schultz & Cialdini (OPOWER Scientists)
Hewlett Foundation San Marcos Study

Applying behavioural science to motivate changes in energy consumption..

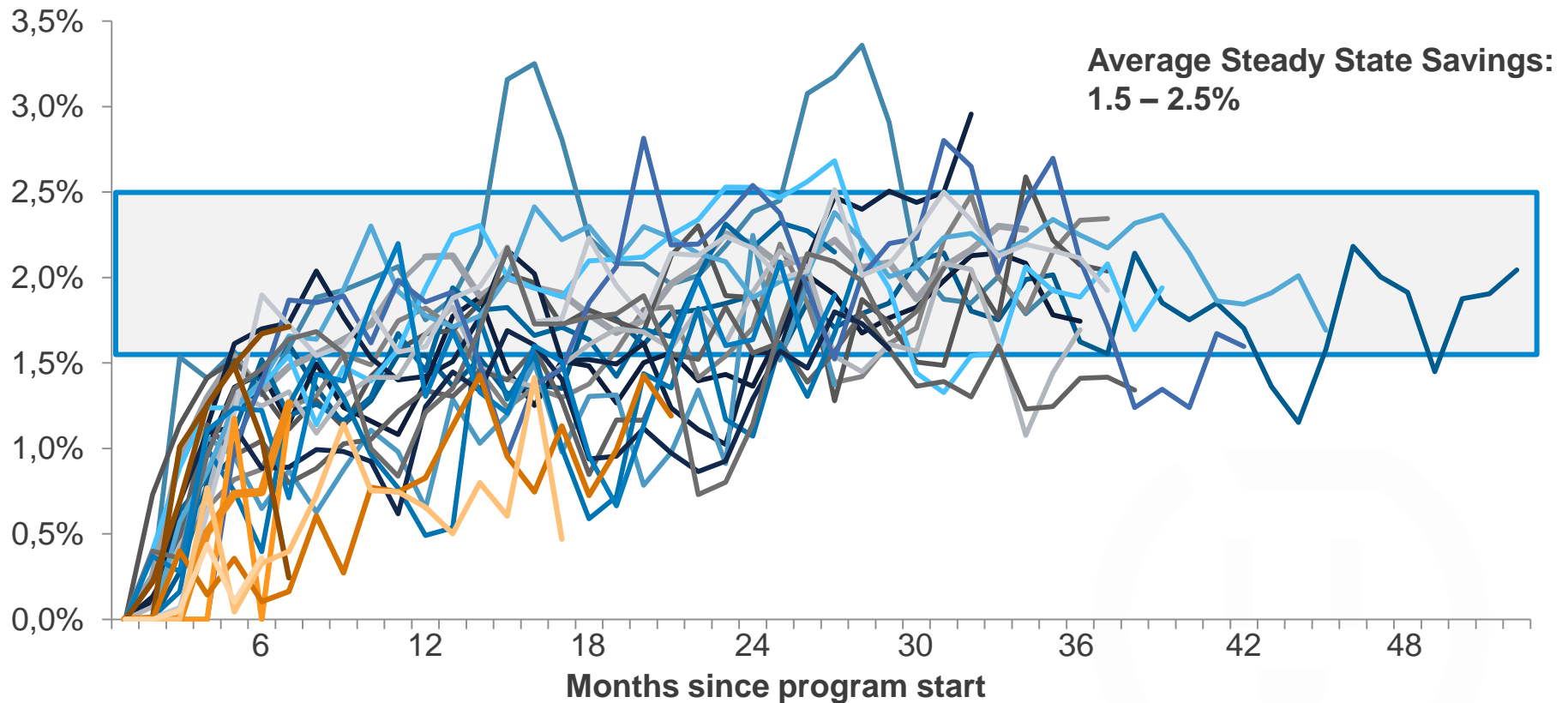


**“They give us a really good comparison with other households.
If I use a little more, I say ‘Ooh – what’s going on?’”**

-Theresa Chen, Utility Customer

Behavioral Energy Efficiency drives, reliable, persistent and scalable savings

Energy savings across utilities with Opower Behavioral Energy Efficiency programs

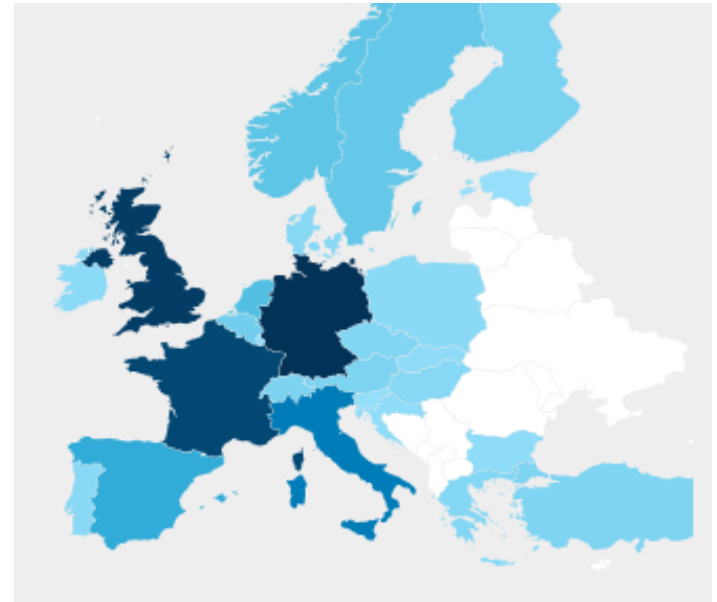


Behavioral efficiency can reach 149 MM households and save 12 TWh's in Europe

Potential by the numbers

- » **26** countries
- » **149 MM** cost effective households
(out of 229 MM total households)
- » **12 TWh** in annual energy savings
- » **3.3 million tons** in annual CO2 emission reductions
- » **2.4 billion euros** in bill savings

Map of potential by country



This is enough to power all the homes in the following five countries, and our European Parliamentary Center



Estonia



Latvia



Lithuania



Luxembourg



Slovenia

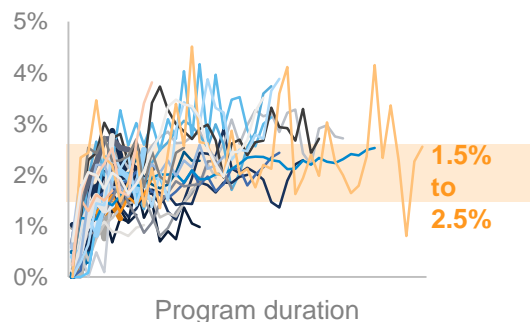


Brussels &
Strasbourg

Sustainable, verifiable results.. Beyond EE

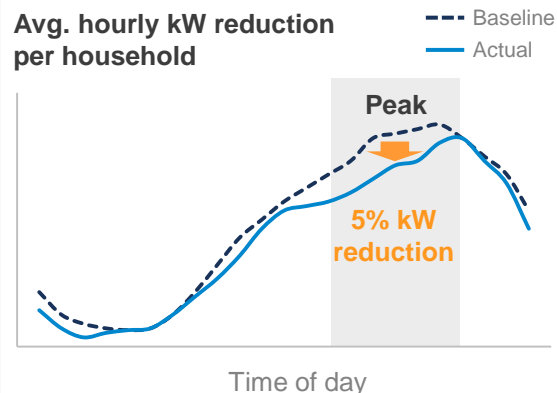
Sustained energy efficiency

% kWh savings across programs



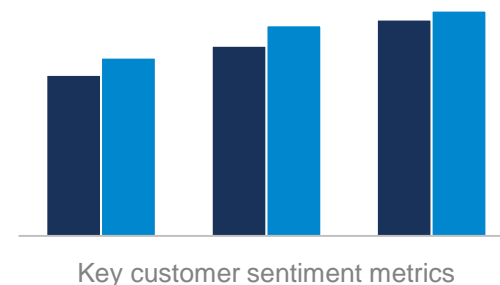
Peak savings

Avg. hourly kW reduction per household



Customer sentiment

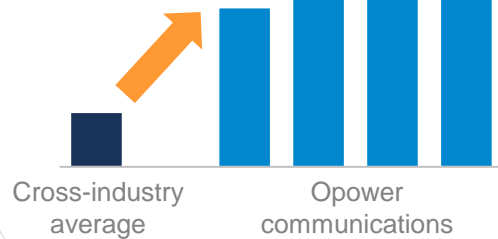
5% avg. increase



Digital engagement

Email open rates

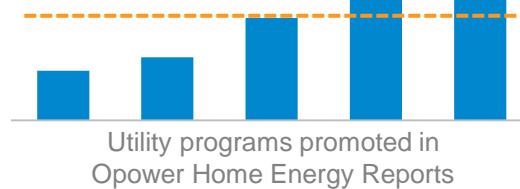
3-5x cross-industry average



Customer acquisition

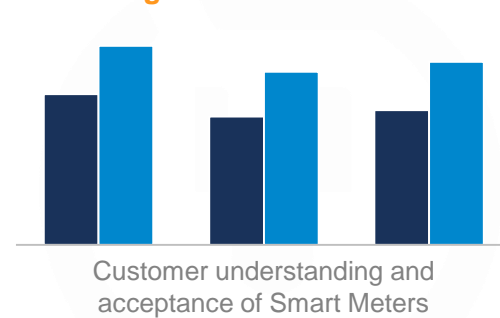
Participation lift in EE programs

Average lift: 60%



Smart Meter acceptance

15% avg. increase





Behavioural Demand Response (BDR)

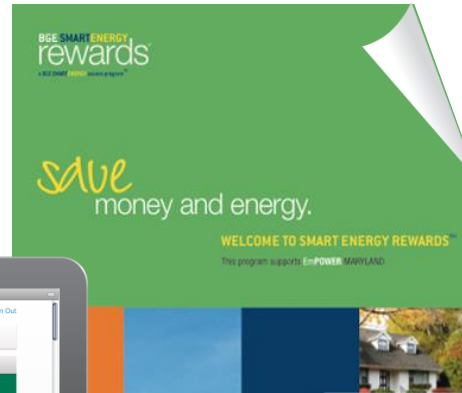
Application: Peak Load Shaping Programs

Online Reinforcement
Consistent with
outbound channels

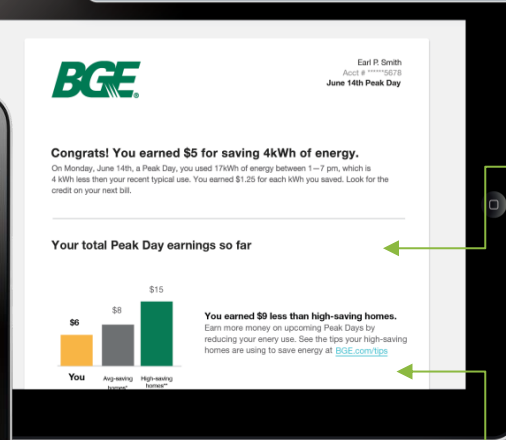
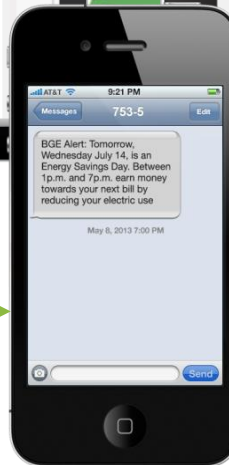
Pre-event notification
Build awareness
ahead of peak
events



Multi-channel
Reach customers
where they are



Earn money towards your next bill by saving energy tomorrow
Wednesday, July 10th between 1pm - 7pm.



Post-event summary
Feedback on
\$ and kWh saved

Normative Comparison
More durable than
rebates alone

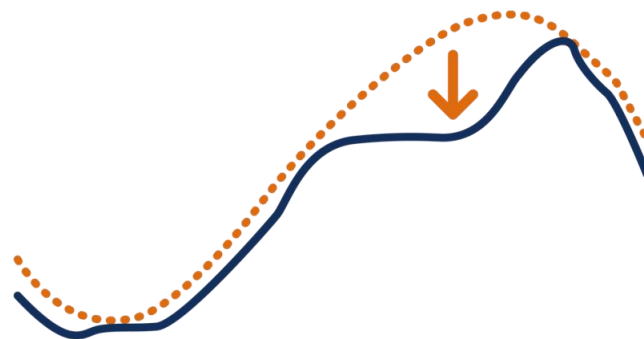
Example: A day in the life of a BDR event

Example Results: Performance across 10 events

5% Peak load reduction




When temperatures climbed to record highs in California, **BDR** delivered 5% peak load reduction at 5pm local time.



EUROPEAN APPLICATION:
Renewables Integration, Load Shaping, Dynamic TOU

Example Results: Positive feedback





Leah borillo
@Honeybabe0210

GWP ENERGY RESULT #7thmost efficient household
#didourpart #doyourpart @ Glendale,
instagram.com/p/sTyW_zCwUV/
12:33 AM - 30 Aug 2014


Andrea Arvanigian
@andiarvanigian

According to Glendale water & power,
saving energy out of 100 of my peers.
life! #overachiever
3:49 PM - 2 Sep 2014

1 FAVORITE

BRIAN BORILLO, your August 28 peak energy day results are here
August 29, 2014 at 4:09 PM

Have trouble viewing this email? Click here




You were the 7th most efficient home in your area.

Last peak day: Thursday, Aug 28 from 1pm-6pm

Rank	Usage
1st	0.339 kWh
...	
6th	0.834 kWh
7th YOU	0.967 kWh
8th	1.016 kWh

Your rankings are based on approximately 100 of your neighbors who have similar homes.

What is a peak day?
During hot days when demand is high, energy can seem expensive. By using less energy during peak days you can help keep costs down for everyone.



haelbhabe
2 weeks ago · Glendale, California

GWP ENERGY RESULT #7thmost efficient household
#didourpart #doyourpart

8ad80yz1105, _amberborillo, leenamacbuhl and 5 others like this.

leenamacbuhl
@haelbhabe HOW did u do it?

Leave a comment...



To Summarise

Consumer Engagement & DSM has a clear & proven role in enabling EU energy 2020 targets

20%

Decrease in greenhouse gas emissions



20%

Increase in the share of renewable energy



20%

Decrease in energy usage



The Engaged Customer



My ask of each of you..

1. Bring in BEE...

- » EU Member State regulators need to be less risk adverse, embrace innovation, and put behaviour at the foundations of their Energy Efficiency policy & pave the way for BDR.

2. Don't get hung up on DP...

- » Data protection, privacy and security are critically important but when it gets in the way of doing the right thing, a pragmatic approach is needed.

3. ...and Get smart!

- » Smart metering is required for behavioural demand response (BDR) – one of the most cost effective demand response measures anywhere in the world.