



Empowering the Consumer

Behavioural Demand Response – A Story from the US

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The value of the smart grid to utilities



Avoided costs



Operational savings



Load management



Energy efficiency

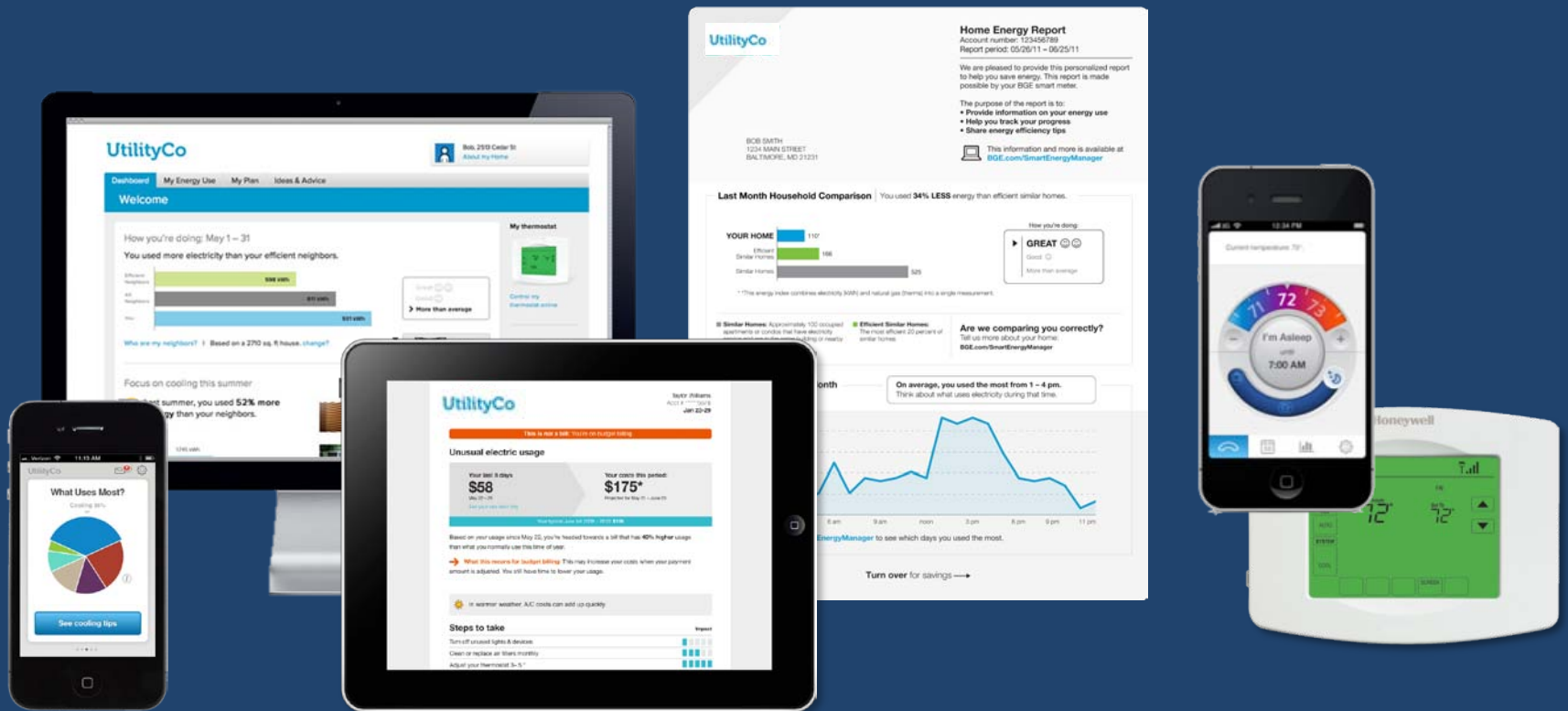


Customer loyalty

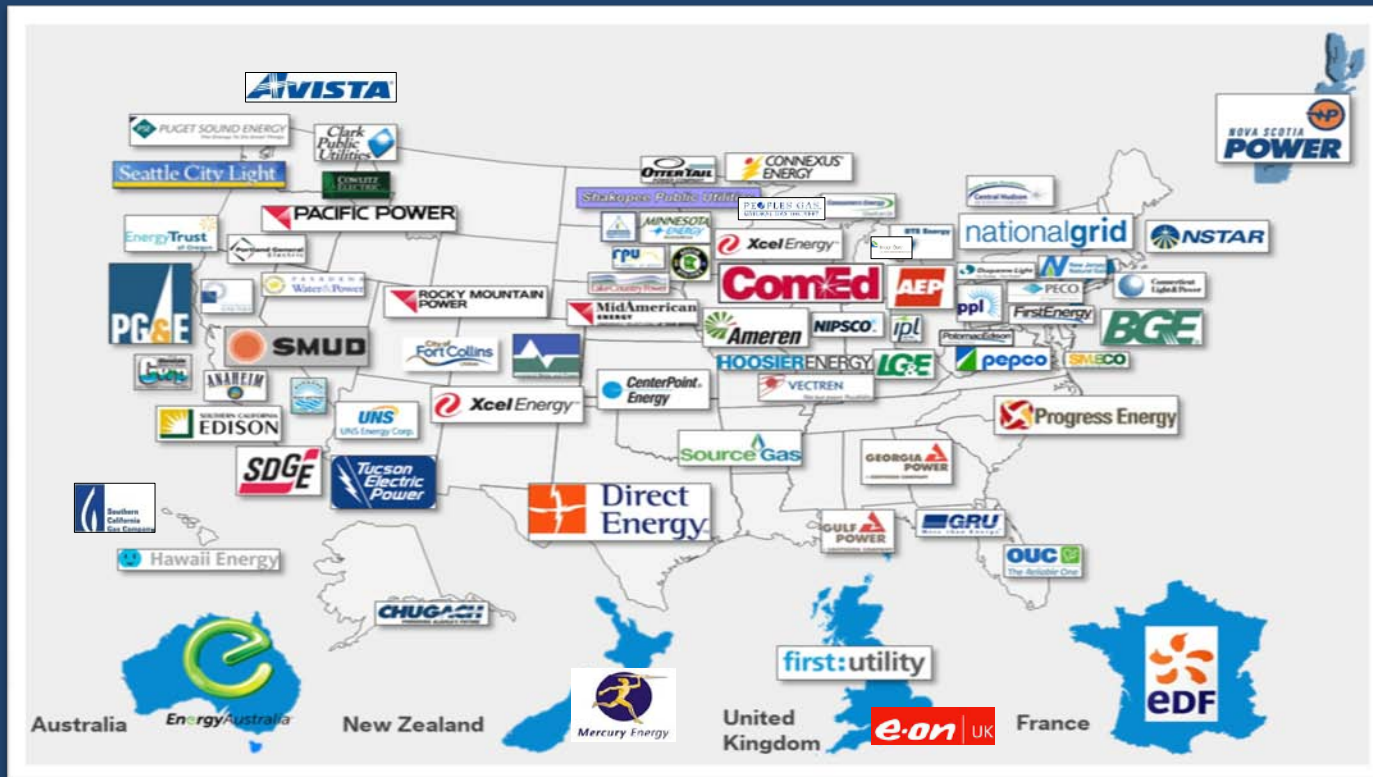
Entirely dependent on customer engagement



Opower has invested over \$100M on building the energy consumer engagement platform



We work with ~100 clients across 7 countries



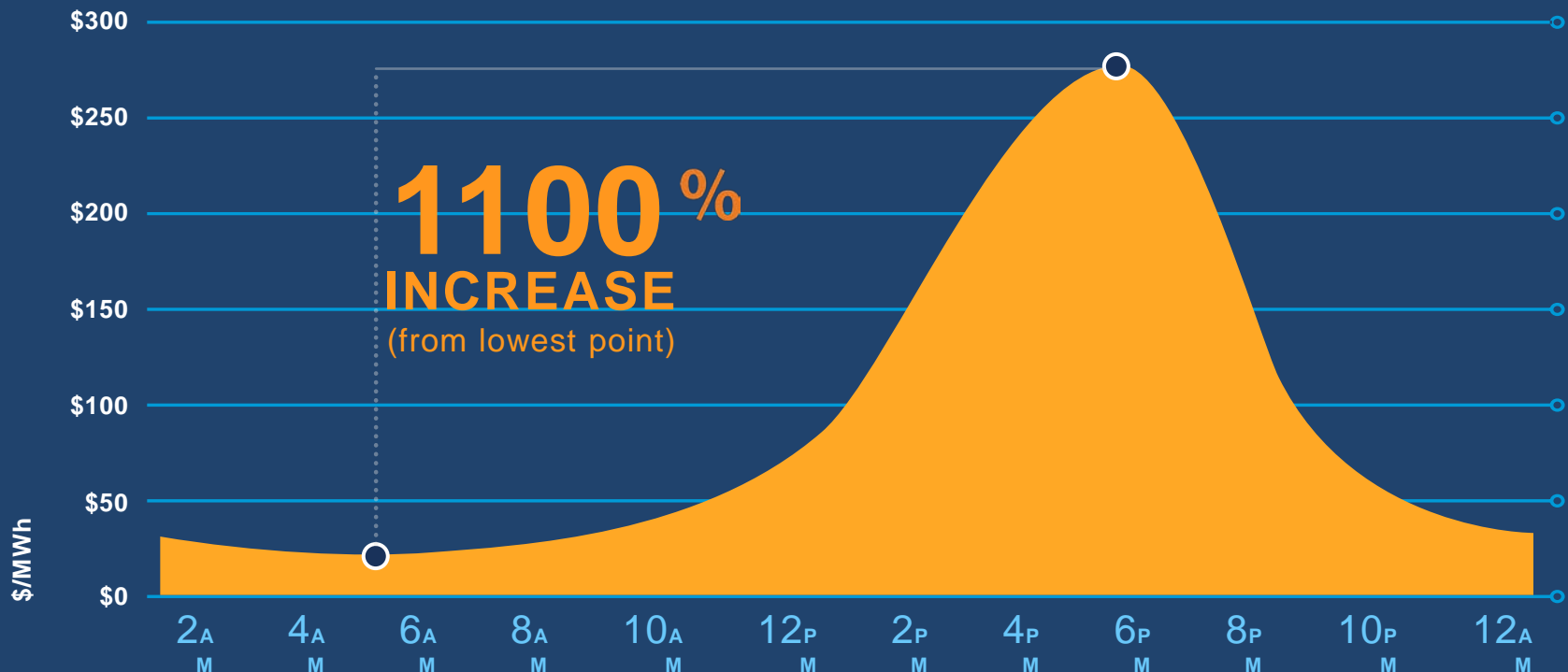
**40% of US energy data under management
(100 billion reads)**



The BG&E Story: skyrocketing power price at peak times

PJM Day-Ahead, Wholesale Electricity

● Prices



Partnered with BGE deploy dynamic pricing to 100% of residential customers



An Exelon Company



2014

After smart meter deployment

35,000
Reads/Year



2014

After smart meter deployment



3000x
MORE DATA



OP@WER

Historic approaches to DSM: Utilities struggled to move beyond pilots

ISSUE 1:

Limited Scale



ISSUE 2:

Hiding the benefits

UtilityCo P.O. Box 2000
Redmond, CA 9171-0001
www.utility.com

For billing and service inquiries call 1-555-555-5555
24 hrs a day, 7 days a week

Date bill prepared: May 23, 2013

Your account summary **2**

| | |
|--|----------------|
| Amount of your last bill | \$35.51 |
| online payment we received on May 15, 2013 - thank you | -\$35.51 |
| Balance forward | \$0.00 |
| Your new charges | \$57.07 |
| Late payment charge | \$0.73 |
| EAF Contribution | \$0.35 |
| Total amount you owe by June 11, 2013 | \$58.15 |

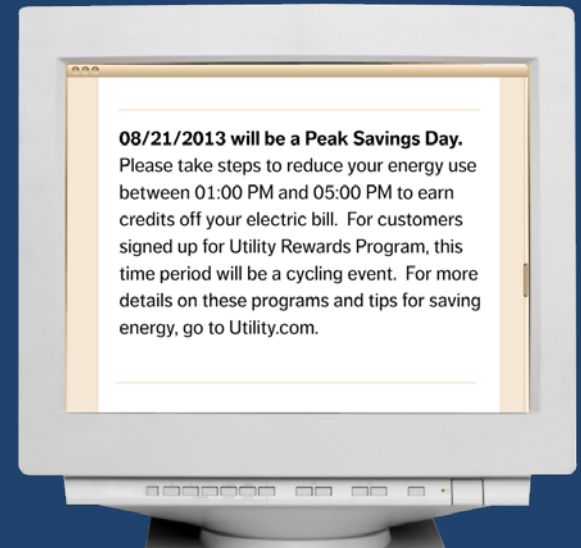
Energy Summer
Tier 1 (within baseline) 445 kWh x \$.080205 \$36.51
Tier 2 (up to 30%) 134 kWh x \$.08205 \$10.99
Tier 3 (31% to 100%) 144 kWh x \$.080205 \$11.82

PTR Participation
PTR Credit 3 kWh x \$.075000 \$2.25

Subtotal \$57.07

ISSUE 3:

Failure to get attention



Capabilities required to meet this challenge

Technology
Scale



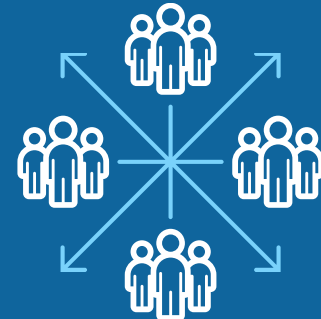
Data Rich



Multi-
Channel



Behavioral
Science



BG&E dynamic rate engagement

Online Reinforcement
Consistent with outbound channels



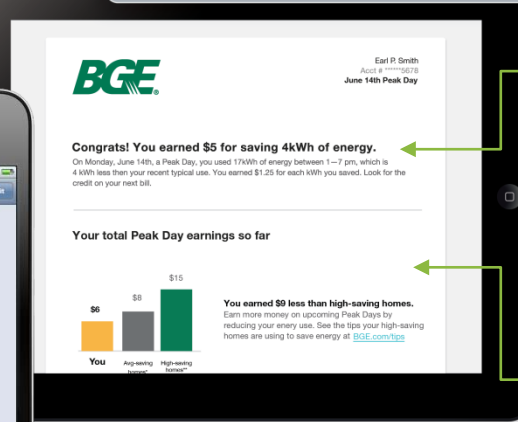
Multi-channel
Reach customers where they are



Pre-event notification
Build awareness ahead of peak events

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

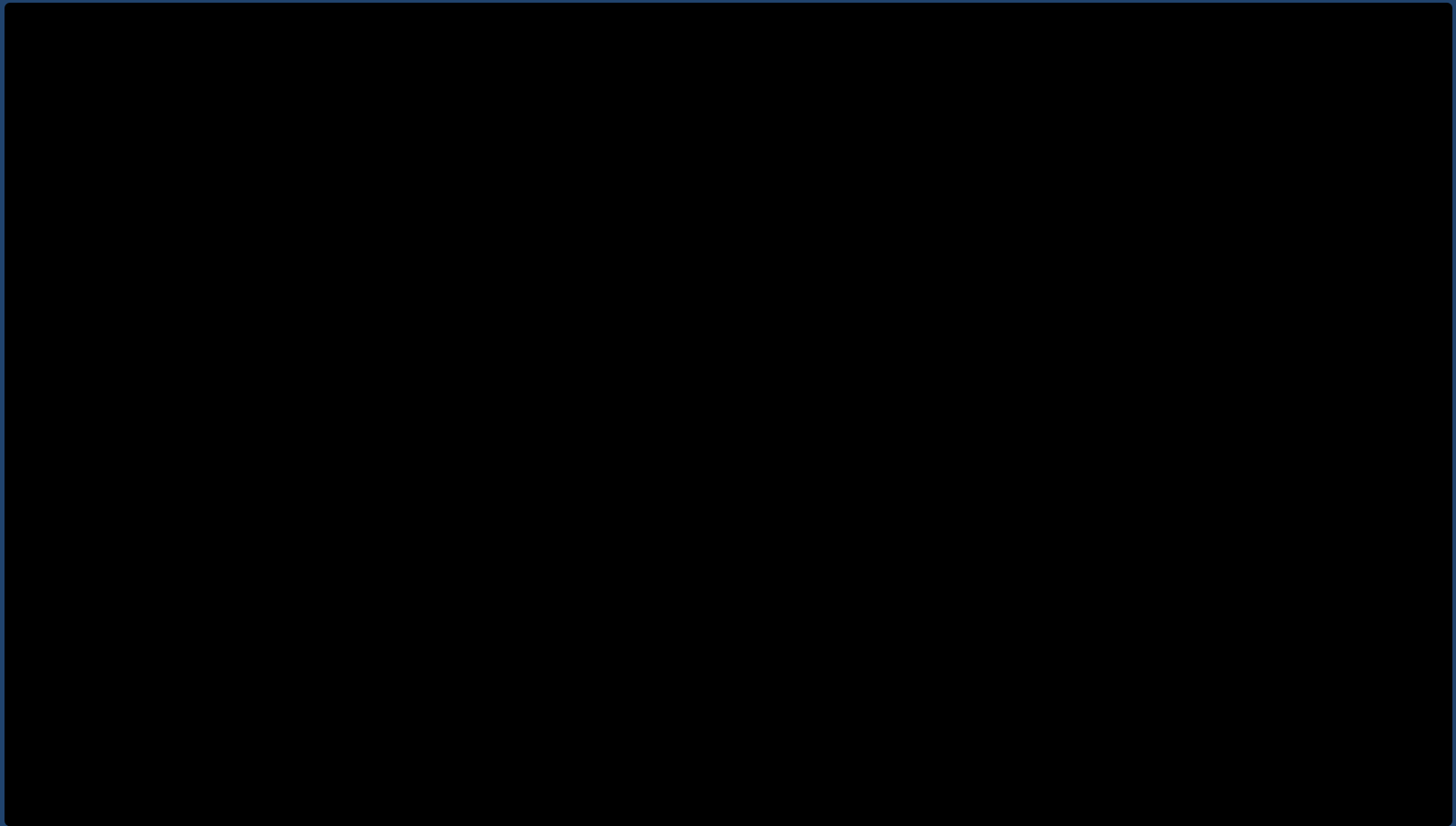
Post-event summary
Feedback on \$ and kWh saved



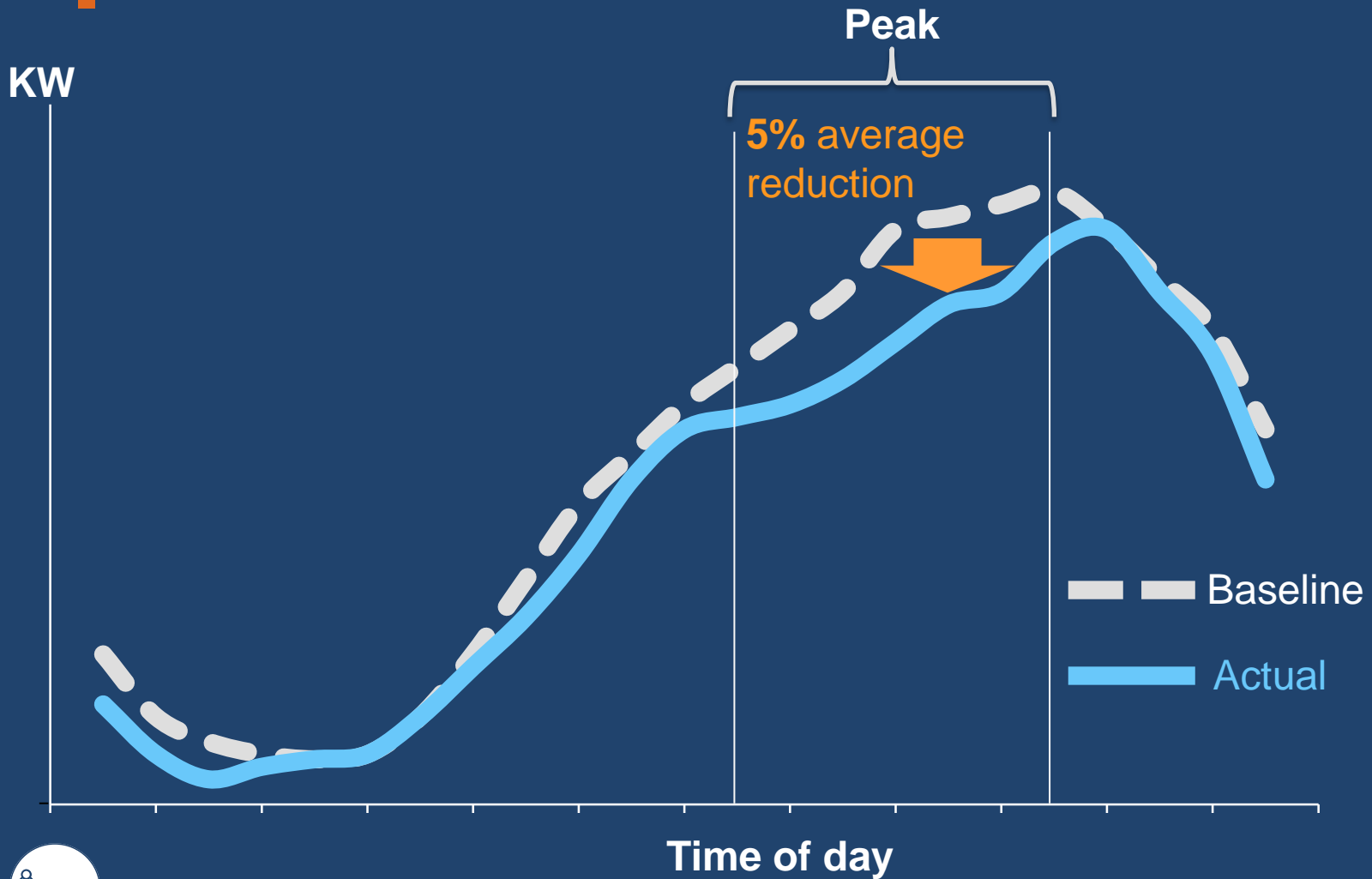
Normative Comparison
More durable than rebates alone

OPOWER

| Engagement across their consumer base



Delivering significant peak reduction



And customers love it



Gene Deems
@gdeems

Follow

@MyBGE Your Smart Energy Rewards customer notifications are #bestpractices for #customerservice bit.ly/15DVGyD

11:23 PM - 22 Jul 2013



kiataroyale™
@kiataroyale

Follow

#BGE energy savings ☐ #motivation to save ☐
[instagram.com/p/b8dm3GHA1c/](https://www.instagram.com/p/b8dm3GHA1c/)

3:50 AM - 19 Jul 2013



Yaw BlackStar
@YAWontheMOON

Follow

These new energy savings days from BGE are love

10:59 AM - 19 Jul 2013



kiataroyale

2 months ago

Follow

#BGE energy savings ☐ #motivation to save ☐

❤ bomb_chelle__ likes this.

9.2 kWh



Your
typical use
leading up
to Jul 17

6.4 kWh



Your Jul 17
use
Energy
Savings Day

Congratulations, you earned \$3.50 for saving 2.8 kWh.

On the July 17 Energy Savings Day (1 pm – 7 pm), you used 2.8 kWh less energy than you typically use and earned \$1.25 for each kWh you saved. Look for the credit on your bill.

Your Energy Savings Day earnings

\$4.25
Jul 10

\$3.50
Jul 17

Earned so far for
reducing your
energy use on
Energy Savings
Days:

\$7.75



To Conclude: Demand Response has a clear role re EU energy targets

20%

Decrease in greenhouse gas emissions



20%

Increase in the share of renewable energy



20%

Decrease in energy intensity



The Engaged Customer

