Engaging Consumers to Save Energy

OPOWER

Utility industry is changing rapidly

REGULATORY MANDATES

FEDERAL & STATE

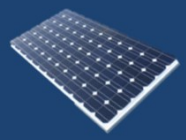
INCREASED COSTS

PEAK PRICING

DEREGULATION & COMPETITION

>30% CHURN in competitive markets

DISRUPTION



MORE DATA

250 MILLION Smart Meters with **700x more data**

?

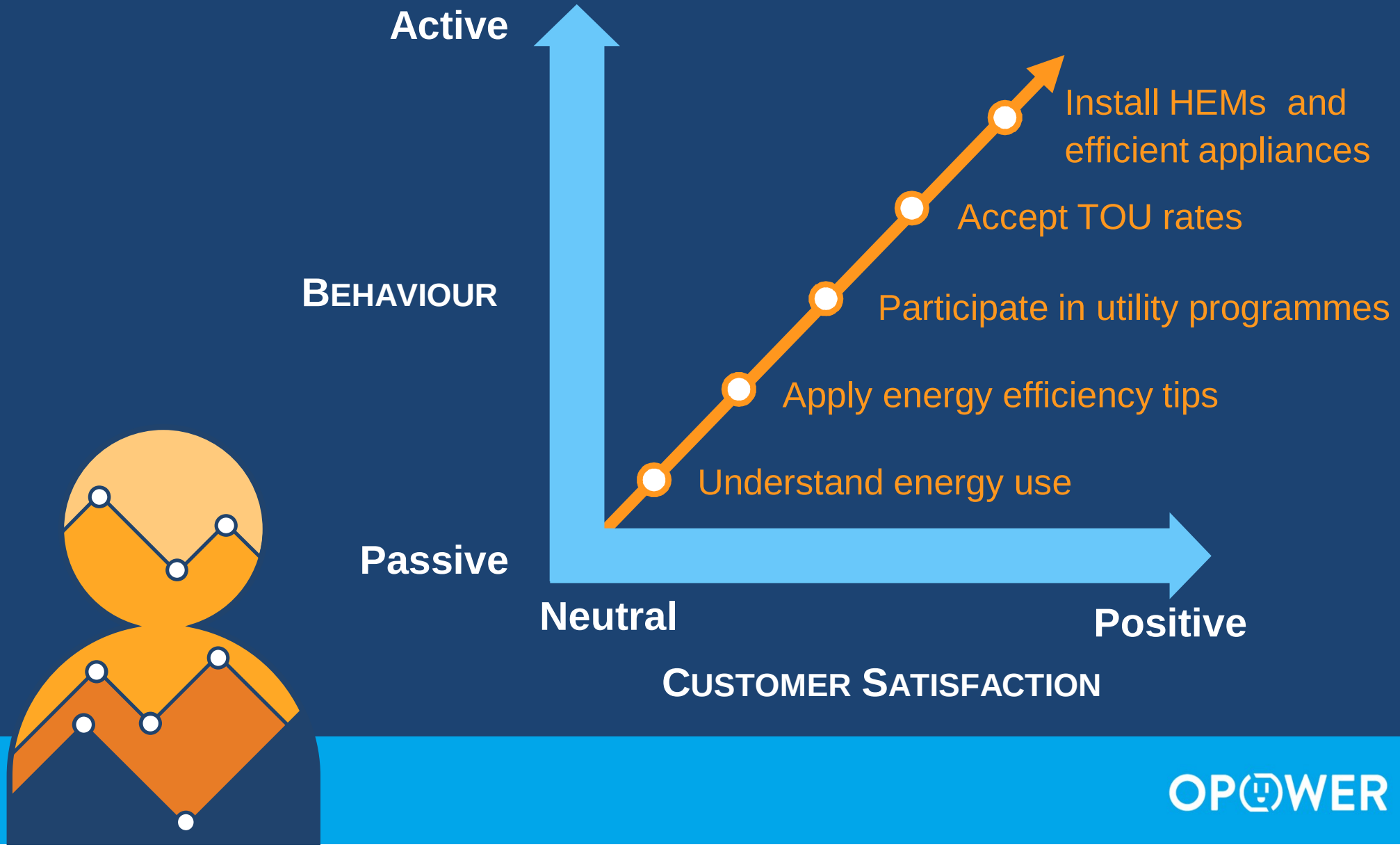
WHAT IS THE CUSTOMER' S ROLE?

OPOWER

9 minutes a year – average time spent thinking about electricity use

OPOWER

Our goal: Unlock the potential of an engaged energy consumer



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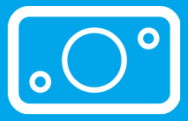
Save money



Save the planet

Be a good citizen

Zero Impact on Consumption

Your neighbours are doing better

6% Drop in Consumption

OPOWER

Opower creates value-added, unified customer dataset

METER DATA

DEMOGRAPHICS

PEAK EVENTS

HOUSING DATA

IN-HOME DEVICES

RATE PLANS

INTERACTION LOG

SOCIAL GRAPH

THERMOSTAT USE

WEATHER

BIG DATA ANALYTICS AND DATA INTEGRATION SYSTEM

52 MILLION
ENERGY CONSUMERS

GENERATING100+ BILLION
METER READS PER YEAR

RUNNING 80+
UTILITY WEBSITES

3 DATACENTERS
PASSING 10 AUDITS

USING 100+
TARGETING ATTRIBUTES

UNIQUE PRODUCT PORTFOLIO TRANSFORMING DATA TO VALUE

OPOWER

PG&E

Your Home Energy Report

Account number: 12345678
Report period: 04/21/12–06/20/12

We are pleased to provide this personalized report to help you save energy.

The purpose of the report is to:

- **Provide information**
- **Help you track your progress**
- **Share energy efficiency tips**

More information is available at
www.pge.com/myenergy

Nina Martin
642 Harrison St
San Francisco, CA

Last 2 Months Household Comparison

You used **36% MORE** electricity than similar homes.

How you're doing:

You used more than average

Turn over for ways to save →

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

Similar Homes: Approximately 100 occupied, nearby homes (avg 0.14 mi away) that have electric heat

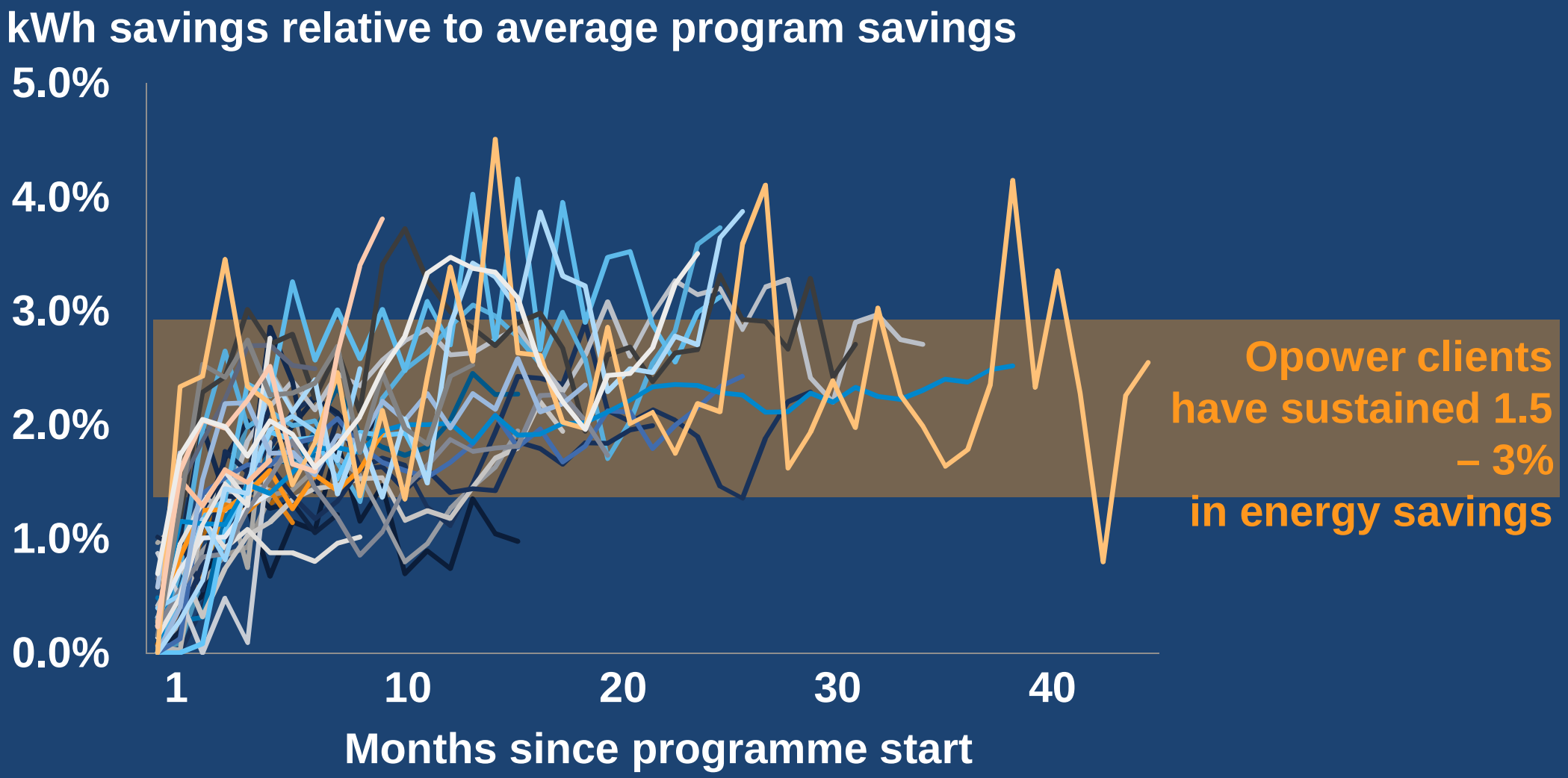
Efficient Similar Homes: The most efficient 20 percent of similar homes

Are we comparing you correctly?
Update your home information by visiting:
www.pge.com/myenergy

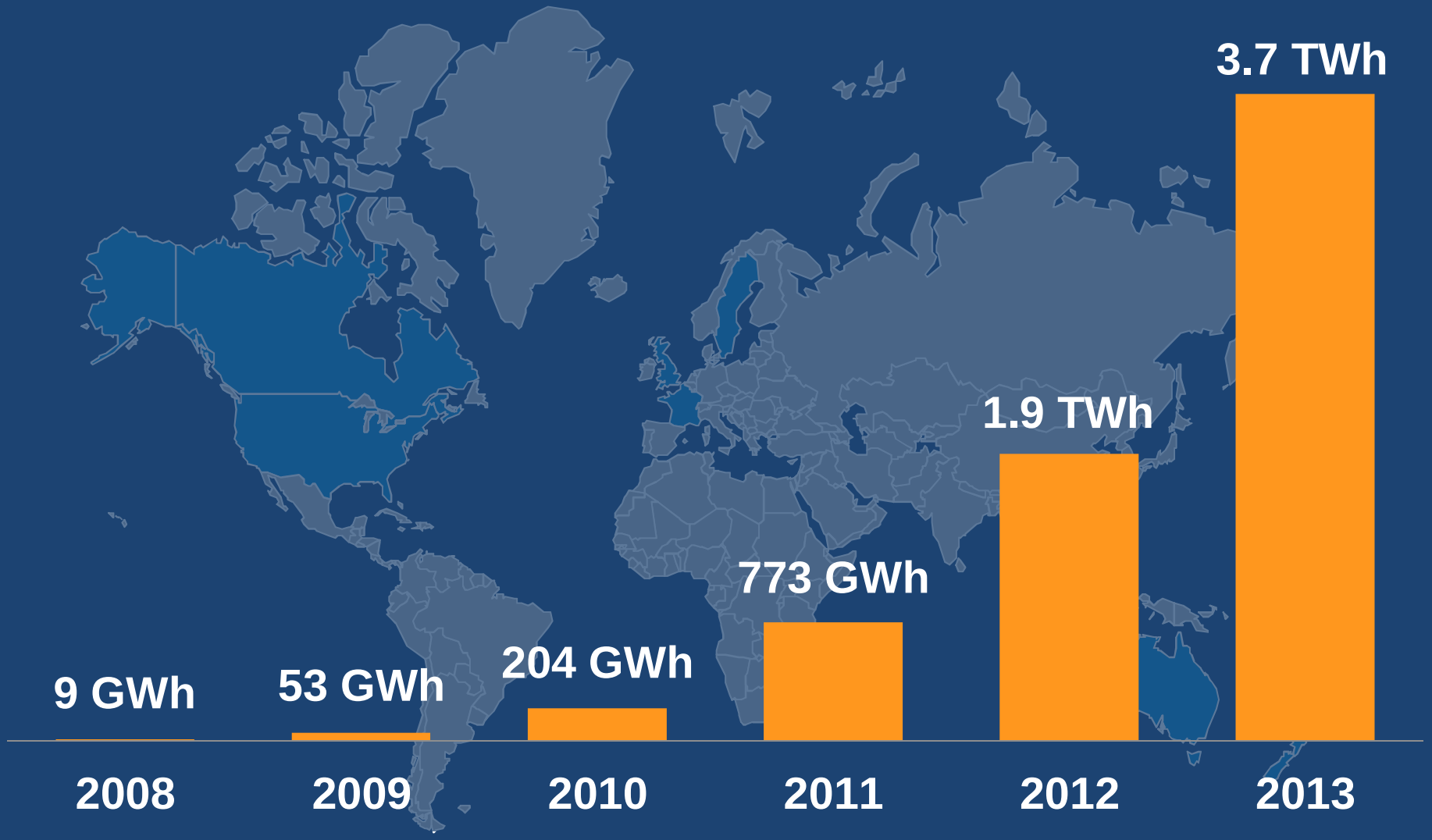
...than similar homes.

OPOWER

Result: Sustainable energy savings



Delivering results at scale



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How can this be applied to peak demand?

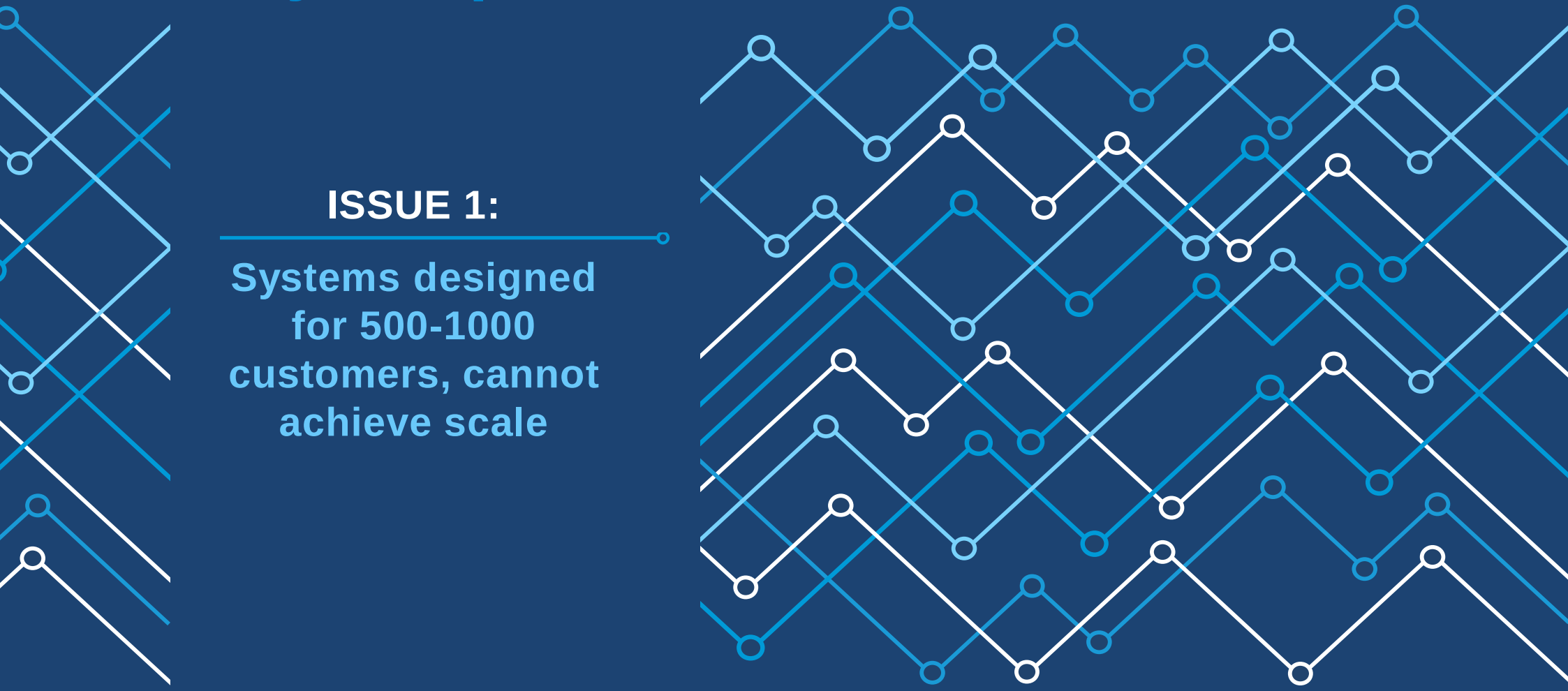
Creating a virtual peaking plant

BGE / OPOWER

Utilities have struggled to move beyond pilots

ISSUE 1:

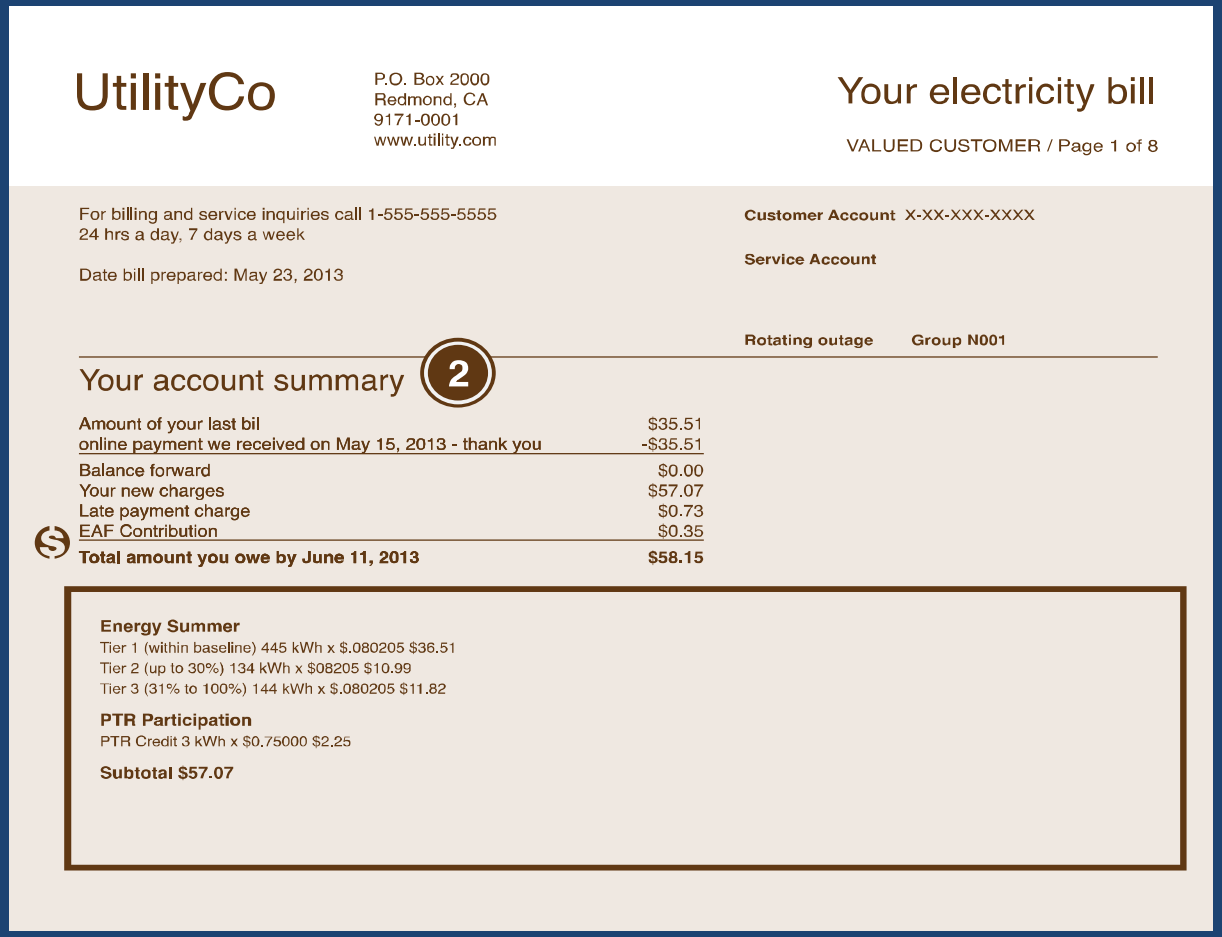
Systems designed for 500-1000 customers, cannot achieve scale



Utilities have struggled to move beyond pilots

ISSUE 2:

Hiding the benefits



UtilityCo

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

Your electricity bill

VALUED CUSTOMER / Page 1 of 8

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

Date bill prepared: May 23, 2013

Customer Account X-XX-XXX-XXXX

Service Account

Rotating outage **Group N001**

Your account summary 2

Amount of your last bil	$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

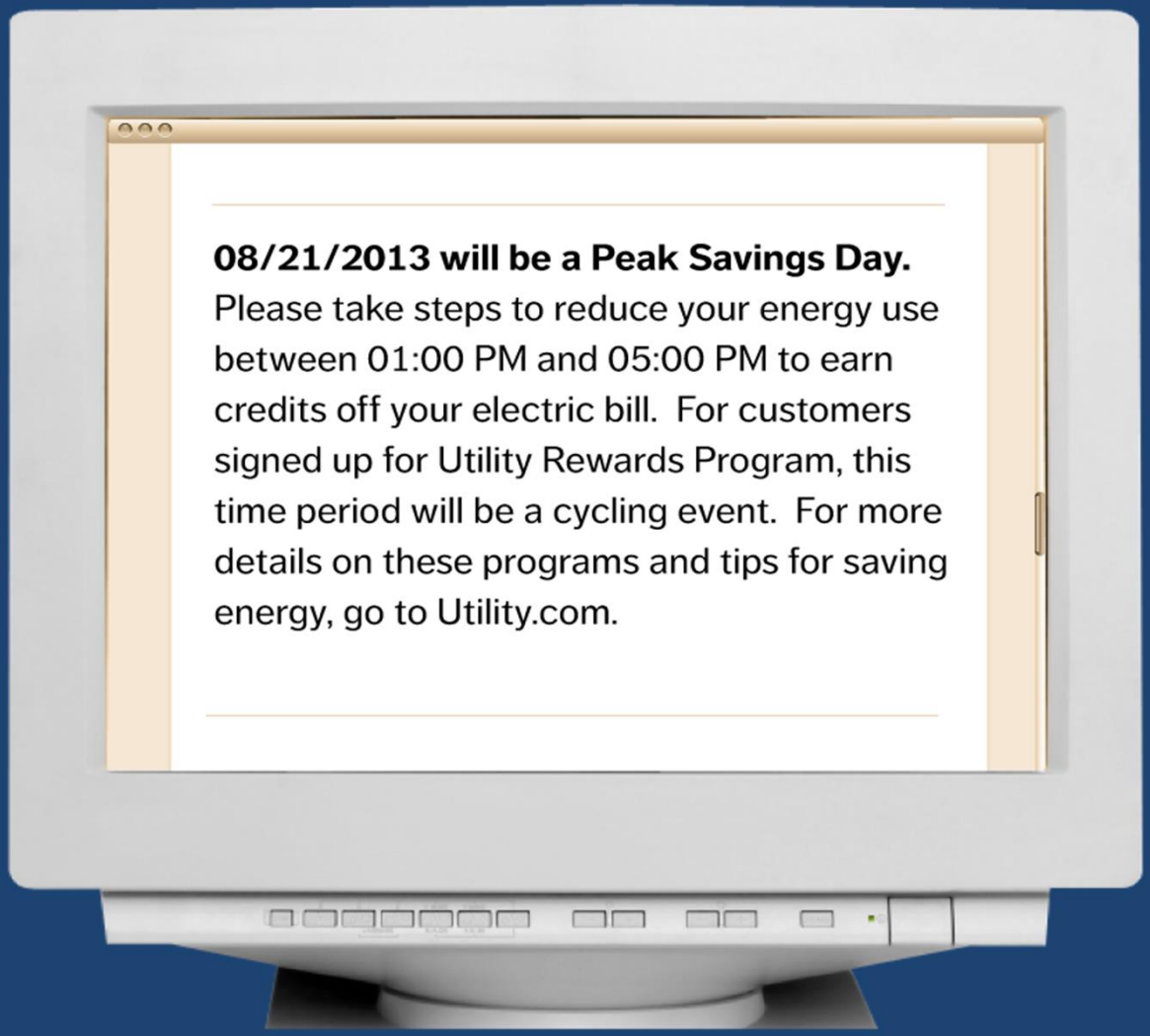
PTR Participation
PTR Credit 3 kWh x $0.75000 $2.25

Subtotal $57.07

Utilities have struggled to move beyond pilots

ISSUE 3:

Failure to get their attention

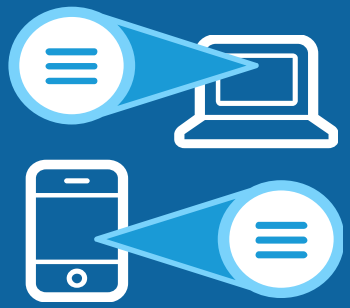


Capabilities required to meet this challenge

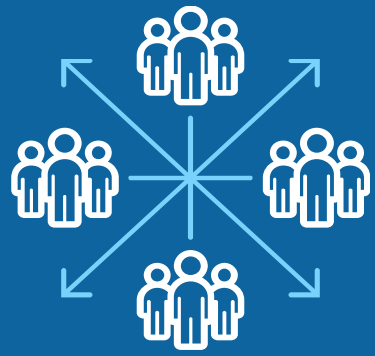
Technology Scale

Data Rich

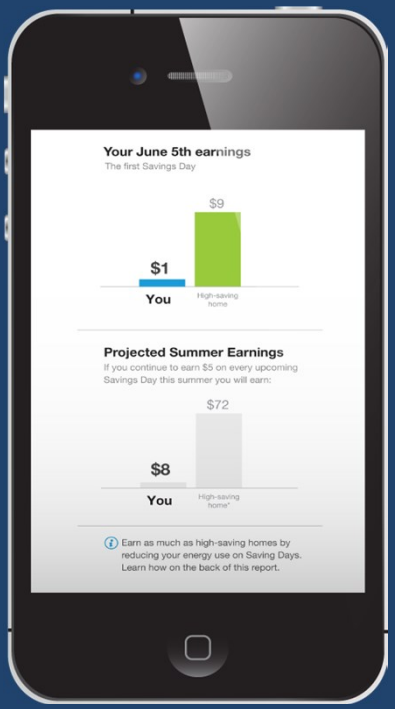
Multi-Channel



Behavioral Science



Personalized communications that motivate customers to reduce peak usage



BGE / OPOWER

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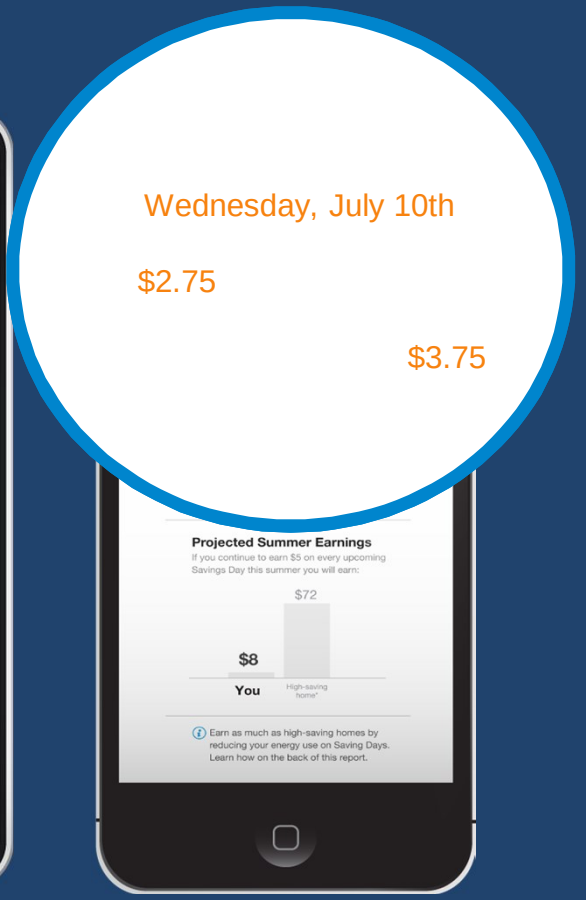
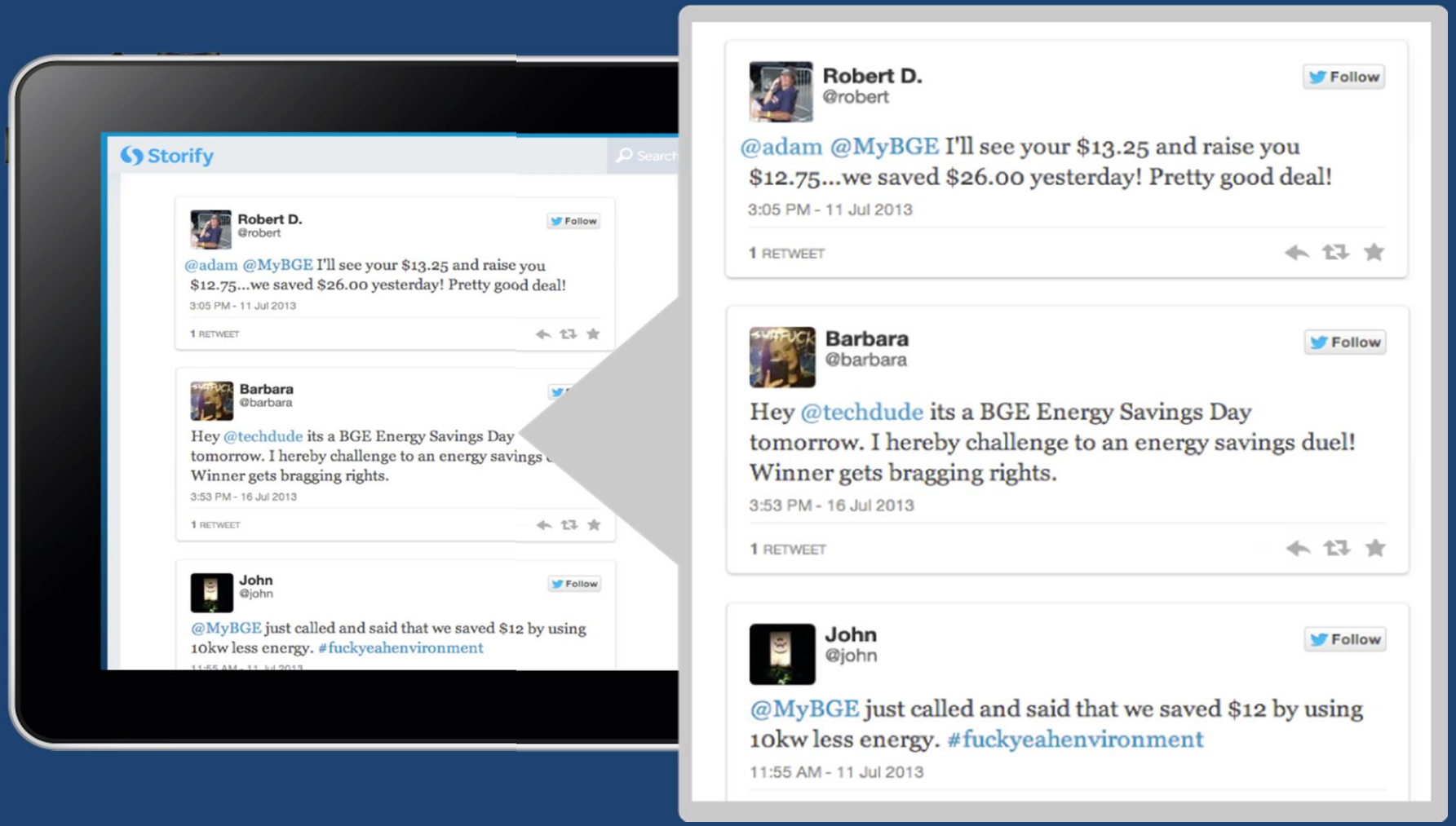


BGE / OPOWER

The solution in action

You know you've made it when you're on twitter



Supported by global leaders

“The work you do here…is making homes more energy efficient, it’s saving people money, it’s generating jobs and it's putting America on the path to a clean energy future…

I want companies like Opower to be expanding and thriving all across America. It's good for consumers. It's good for our economy. It's good for our environment."

- President Barack Obama

“Let me just give you one example that I think is incredibly simple, and I love.

Look at what this does! This is a simple piece of behavioural economics. The best way to get someone to cut their electricity bill is to show them their own spending, to show them what their neighbours are spending, and then show what an energy conscious neighbour is spending.”

- David Cameron