Introduction to the Opower Platform

Influence action → save energy & reduce customer bills → drive energy security
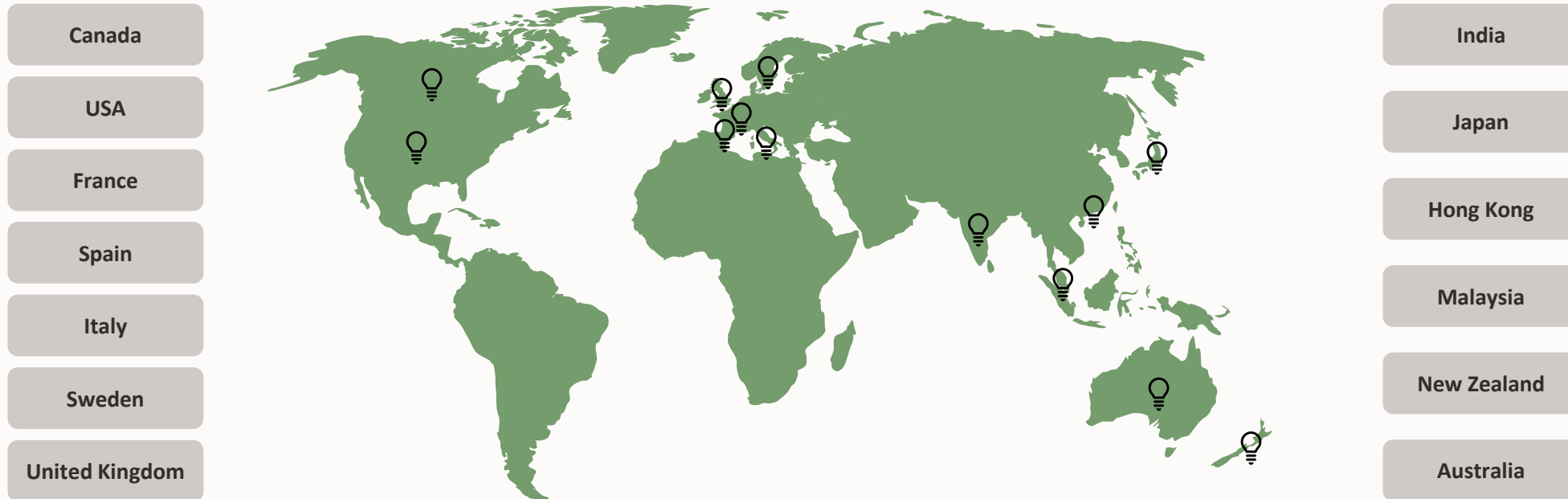
Mary Sprayregen, *Global Head of Regulatory Affairs*
Oracle Energy and Water – Opower

ORACLE | OP⊙WER

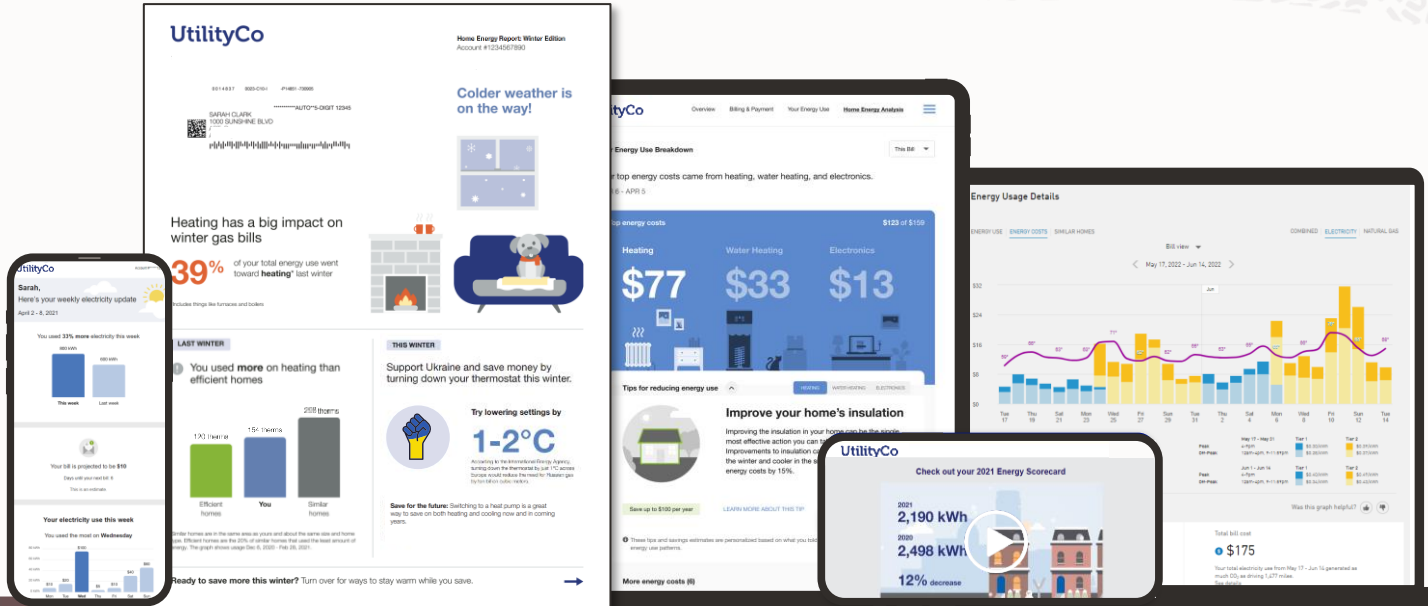# Opower solves energy and engagement challenges for utilities worldwide

Canada
USA
France
Spain
Italy
Sweden
United Kingdom

India
Japan
Hong Kong
Malaysia
New Zealand
Australia

Since 2007, Opower has served 175+ utilities in 12 different countries

Behavior-based utility programs: a measurable impact

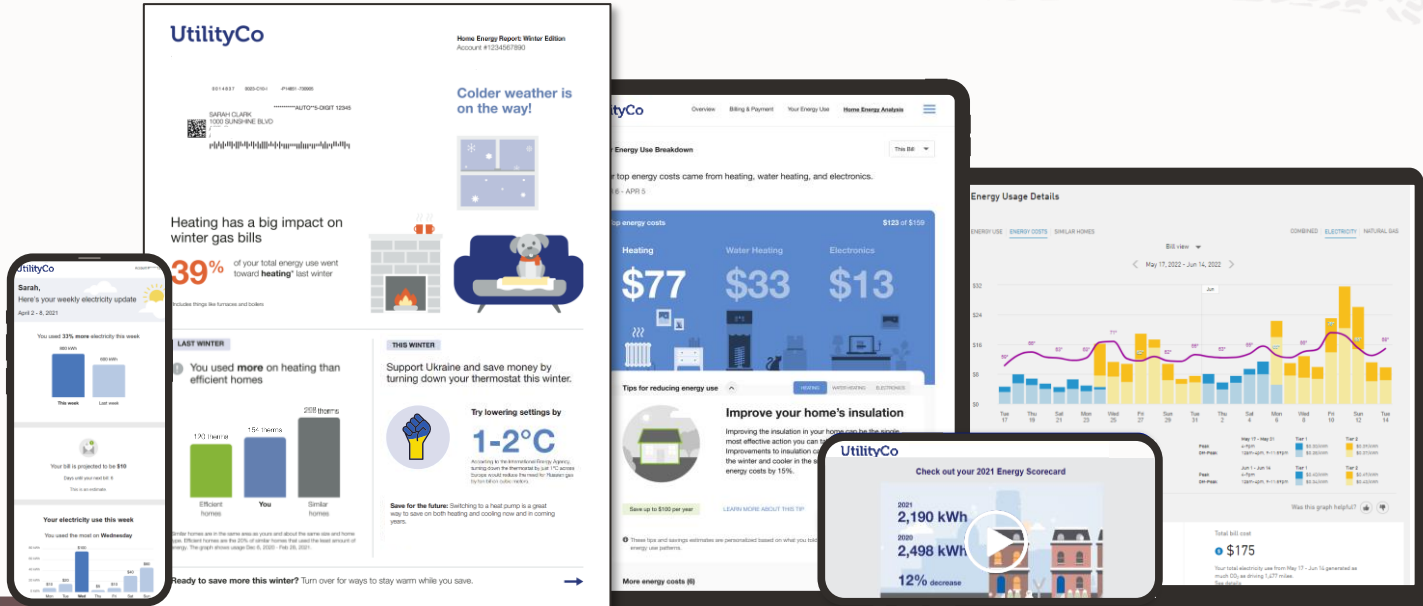| **33**TWh	**418**MW	up to **5X**	**+$2.7**B	up to **95**%
Saved with Behavioral Energy Efficiency	Lower Peak Demand Capacity Today	Faster Product & Program Adoption	Customer Bill Savings	Satisfied Customers

Behavior-based utility programs: a measurable impact

33TWh

Saved with Behavioral
Energy Efficiency

Equivalent to taking all of Denmark's households off the grid for 1 year

Avoided CO_2 emissions equal to outputs from ~60 natural gas-fired power plants[1]

Potential to save an additional 10 TWh annually in Europe

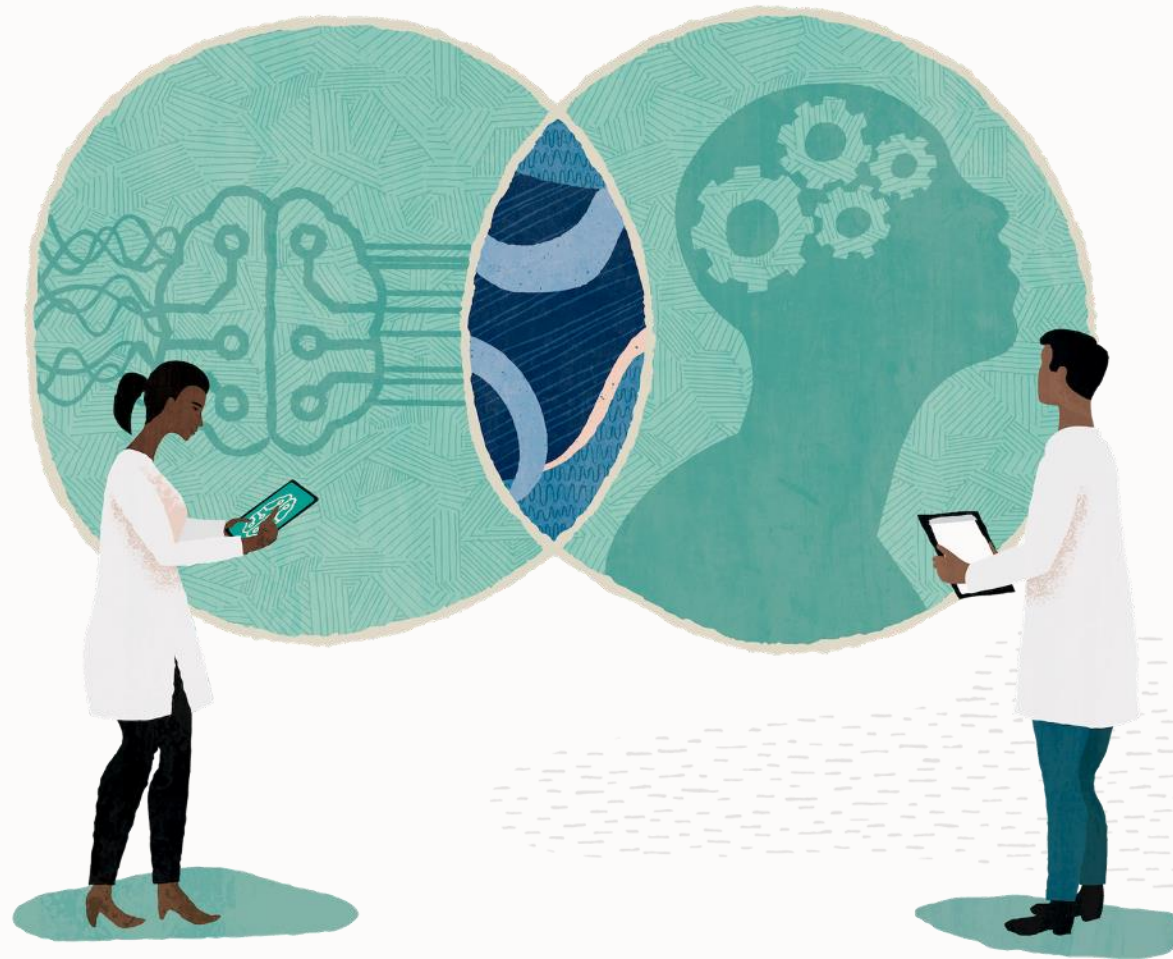1) https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Our success stems from the intersection of AI and behavioral science

Artificial Intelligence

- Simplifies complexity
- Trained on the world's largest energy consumer data set
- Predicts and offers what each customer needs

Behavioral Science

- A variety of proven principles
- Makes price signals secondary
- Large experiments with leading scientists
- Gets customer attention and influences action

The value of an opt-out program design

Scalability

Opt-out programs maximize value, ensuring the most possible savings from an extremely cost-effective program.

Crisis Response

An opt-out program is a tangible way for a utility and government to support *every* customer during a crisis.

Equity

Opt-in programs are exclusive, preferencing wealthier, more engaged homes and only benefitting a subset of utility customers.

Measurability

A larger sample size in opt-out programs makes it possible to run a Randomized Control Trial, definitively attributing savings to a utility-led program.

Customer Satisfaction

Despite the common misconception that opt-out programs can decrease happiness, Opower programs demonstrably increase customer satisfaction in Europe and around the world.

Behavioral change is a cornerstone of effective demand side management

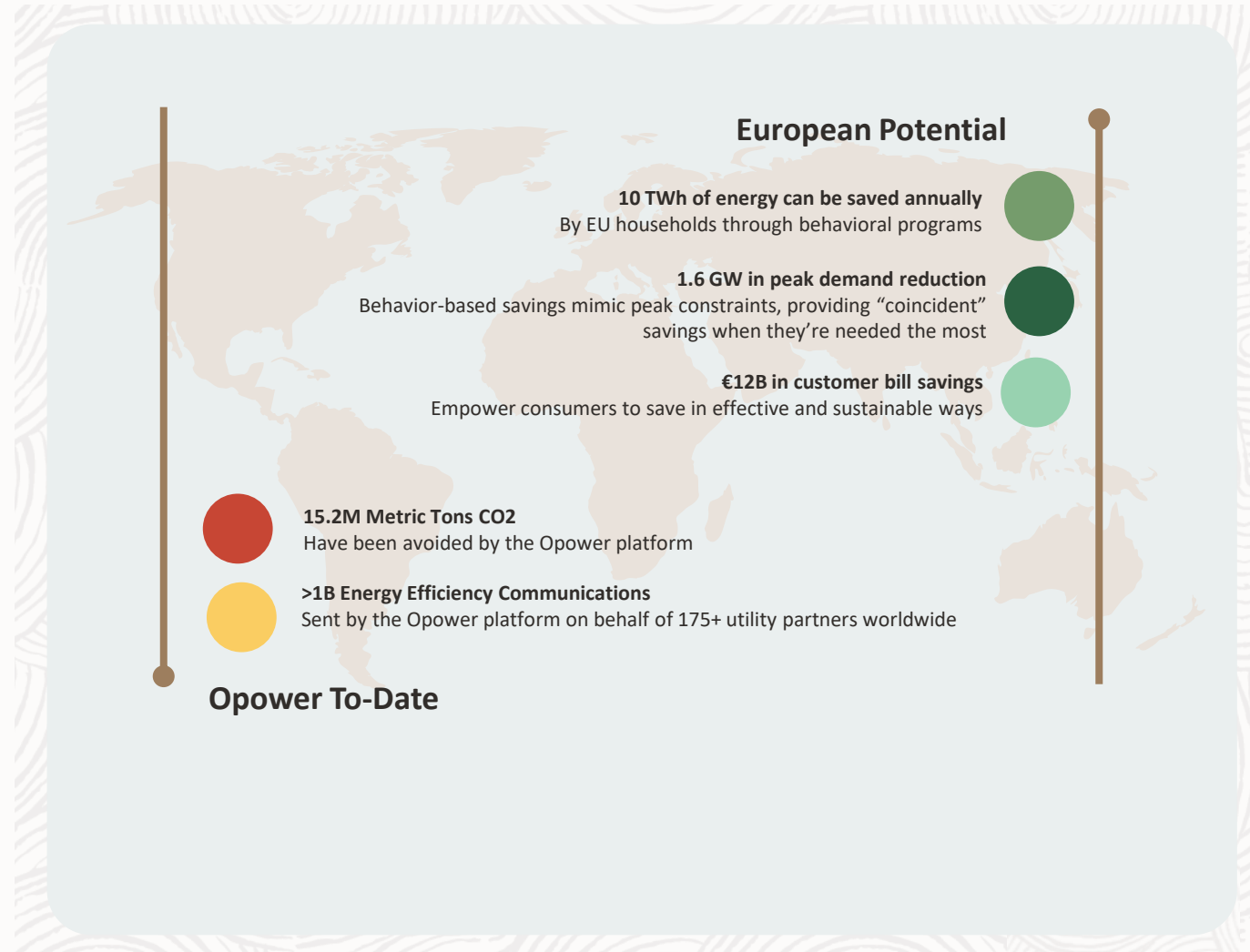*In both the short and long-terms*

Behavioral change is a necessary tool to address the Russian gas crisis *and* to meet sustainability goals.

Despite its acknowledged importance to short and long-term energy efficiency programs, there is no mandated plan in Europe to drive behavior change.

Opower is the global leader in behavioral energy efficiency. Our impact in Europe can be tremendous.

European Potential

10 TWh of energy can be saved annually
By EU households through behavioral programs

1.6 GW in peak demand reduction
Behavior-based savings mimic peak constraints, providing "coincident" savings when they're needed the most

€12B in customer bill savings
Empower consumers to save in effective and sustainable ways

15.2M Metric Tons CO2
Have been avoided by the Opower platform

>1B Energy Efficiency Communications
Sent by the Opower platform on behalf of 175+ utility partners worldwide

Opower To-Date

Opower's Original European Pilots

The urgency of the current European energy crisis makes effective consumer engagement more important than ever.

Across five energy efficiency pilot programs in Europe, Opower reduced **>113 GWH** of electric and gas usage.*

Europe's smart meter rollout **enables new tools** that drive additive energy efficiency savings.

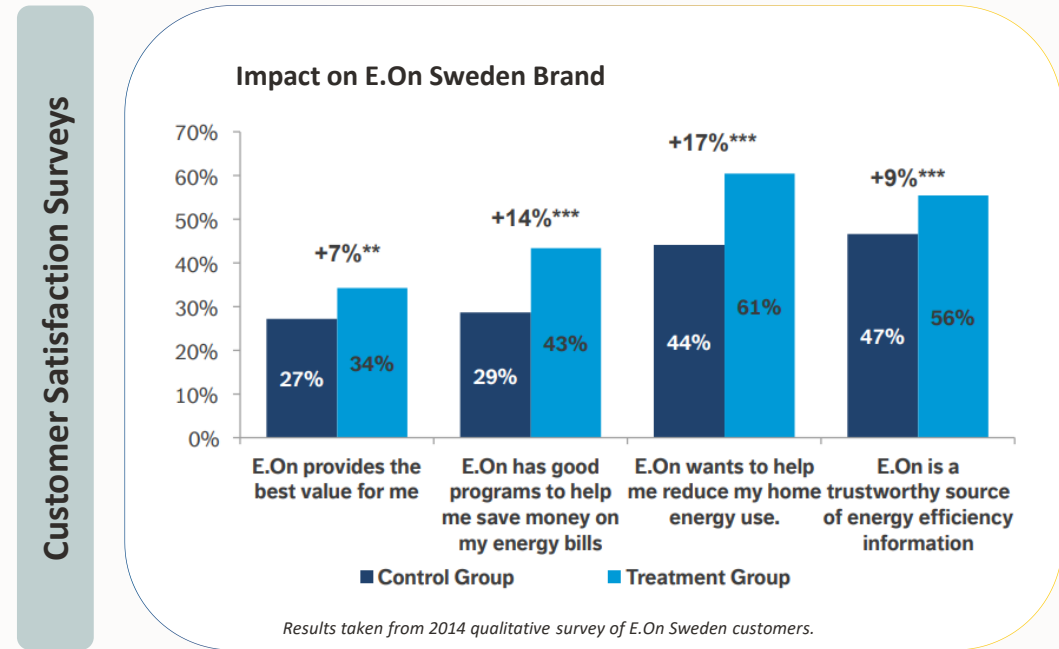The climate crisis has become **increasingly urgent** since Opower left the European market.

Fuel prices are taking **an unprecedented toll on consumers**, necessitating the relief Opower can provide.

Measured through a series of randomized control trials.
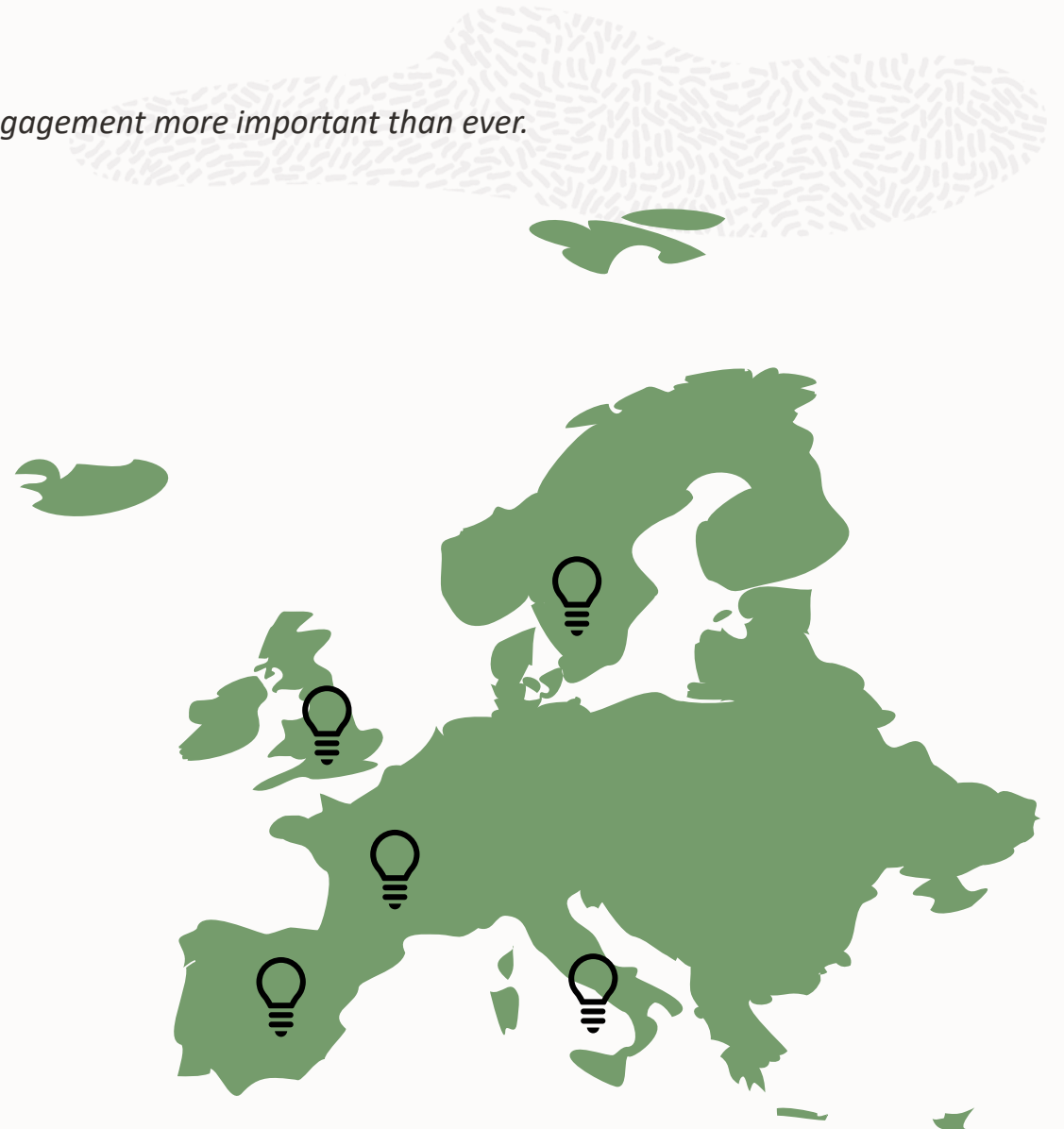
Case Study: E.On Sweden

Program Length	Opower Efficiency Solutions	Electric Savings Rate °	Total Electric Savings °
2013-2014	• HER – Print and Email • Web Portal	1.12%	12.8 GWH

Customer Satisfaction Surveys

Impact on E.On Sweden Brand

+7%** — E.On provides the best value for me: Control Group 27%, Treatment Group 34%

+14%*** — E.On has good programs to help me save money on my energy bills: Control Group 29%, Treatment Group 43%

+17%*** — E.On wants to help me reduce my home energy use: Control Group 44%, Treatment Group 61%

+9%*** — E.On is a trustworthy source of energy efficiency information: Control Group 47%, Treatment Group 56%

■ Control Group   ■ Treatment Group

Results taken from 2014 qualitative survey of E.On Sweden customers.

Why aren't these programs in Europe today?

To enable a successful behaviour change *programme*, you need:

1. Access to meter data

2. The ability to proactively communicate with consumers in a personalized way

3. *Retail supplier incentive*

A New Model: Opower & MoE approach to Japanese Energy Crisis

Program design

- 2017-2021 programme
- 300,000 households
- Five retailers participated
- Behavioral energy efficiency Home Energy Reports

Funding structure

- Ministry of Energy (MoE) provided funding
- Individual retailers shared data
- Opower delivered home energy report program via retailer

Program results

- 2% average energy efficiency saving
- 2.8% max savings
- 47,000 tons of CO_2

Thank You

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