



SMART
ENERGY
CONSUMER
COLLABORATIVE

2020

MEMBERS MEETING & Fall Workshop

VIRTUAL

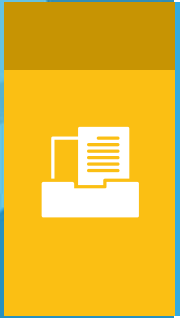
Oct. 20-22, 2020



Beneficial Electrification: Meeting Consumers' Expectations

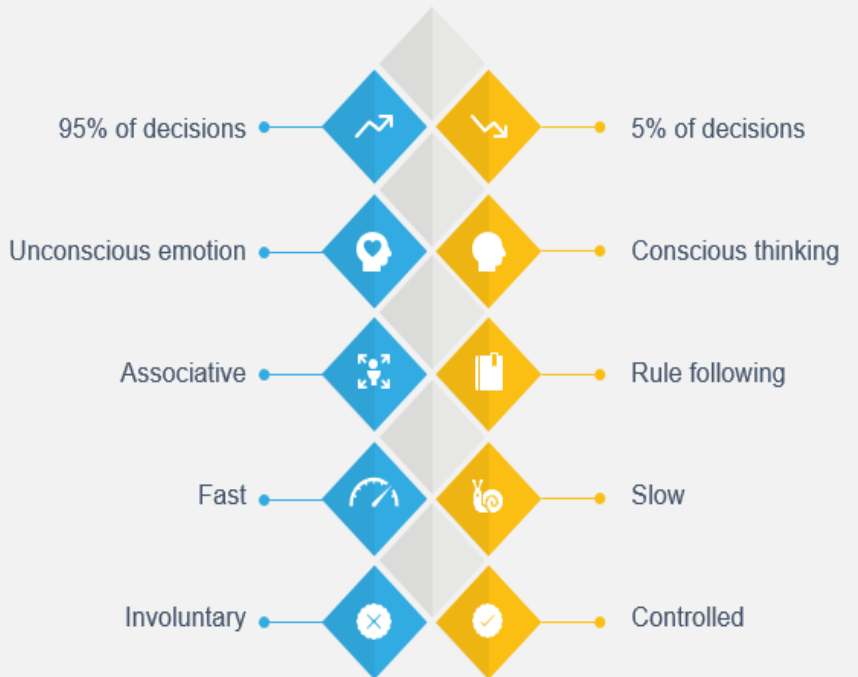
SYSTEM 2
CONSCIOUS

SYSTEM 1
UNCONSCIOUS



Methodology

System 1 | **System 2**



The Smart Energy Consumer Collaborative commissioned Maru/Matchbox to conduct an online survey among 1200 Americans who are the energy decision-makers in their household.

Interviews were conducted from March 23rd to 27th, 2020. The data was weighted to age, gender, region, and education to the US Census, as well as SECC consumer segments.

The core objective of this research was to find **most effective message at communicating the urgency of climate change**. This research employed **System 1** research tools to uncover unconscious consumer motivations with a layer of **System 2** techniques.

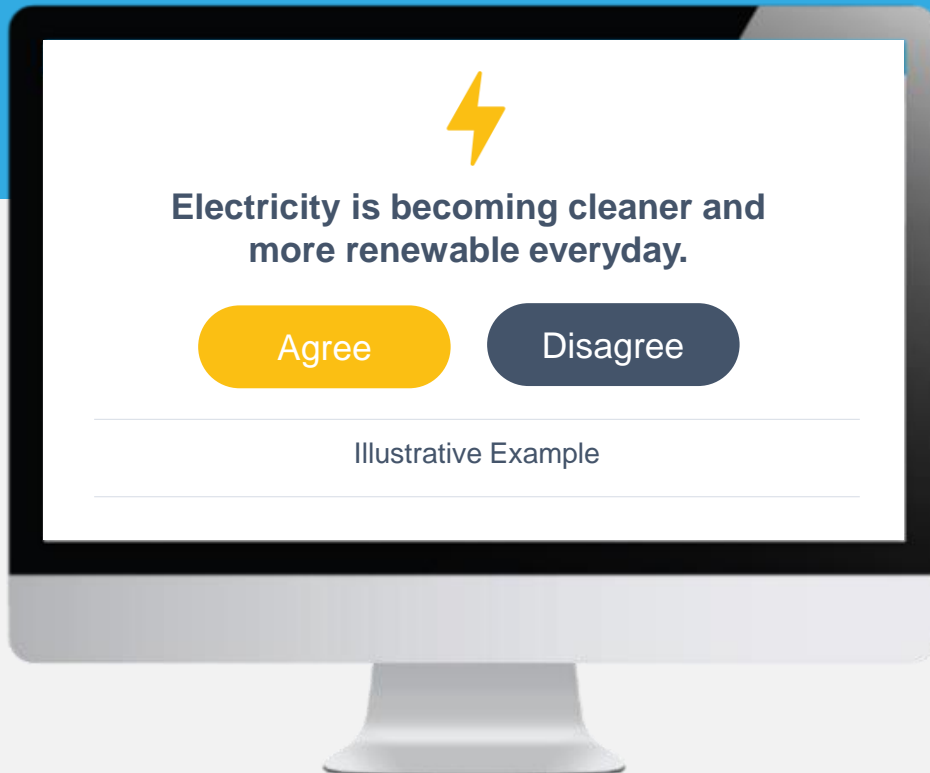
What is Crossroads Analysis?



Crossroads analysis incorporates our **Implicit Association Testing (IAT) with a MaxDiff exercise** to holistically understand consumer attitudes and behaviors.

What is Implicit Association Testing (IAT)?

In IAT, respondents are shown a series of statements and asked if they agree or disagree whether each statement applies to them. A short reaction time to agreeing or disagreeing with a statement shows implicit association with an instinctive reaction and strong connection (System 1). A longer reaction time is an explicit association, as it requires slower and more rational thinking (System 2).



Reaction time testing provides the means by which psychologists can discriminate subconscious brain processes from conscious thoughts or decisions. This is because conscious and subconscious mental processes occur within different timeframes, allowing for two distinct paths for decision making:

System 1

- Unconscious Emotions
- Very Fast
- Involuntary
- Associative
- Implicit Responses



System 2

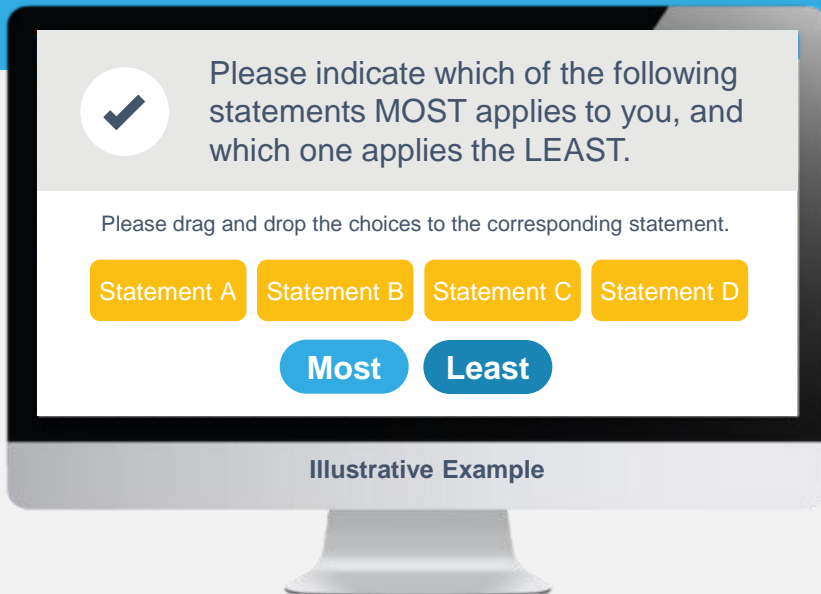
- Conscious Thinking
- Slow
- Controlled
- Rule Following
- Explicit Responses

What is Crossroads Analysis?



What is MaxDiff?

MaxDiff is a choice-based methodology that forces consumers to trade-off items that influence their decision process, which results in rank order data that can then be modeled to further derive the degree of importance.

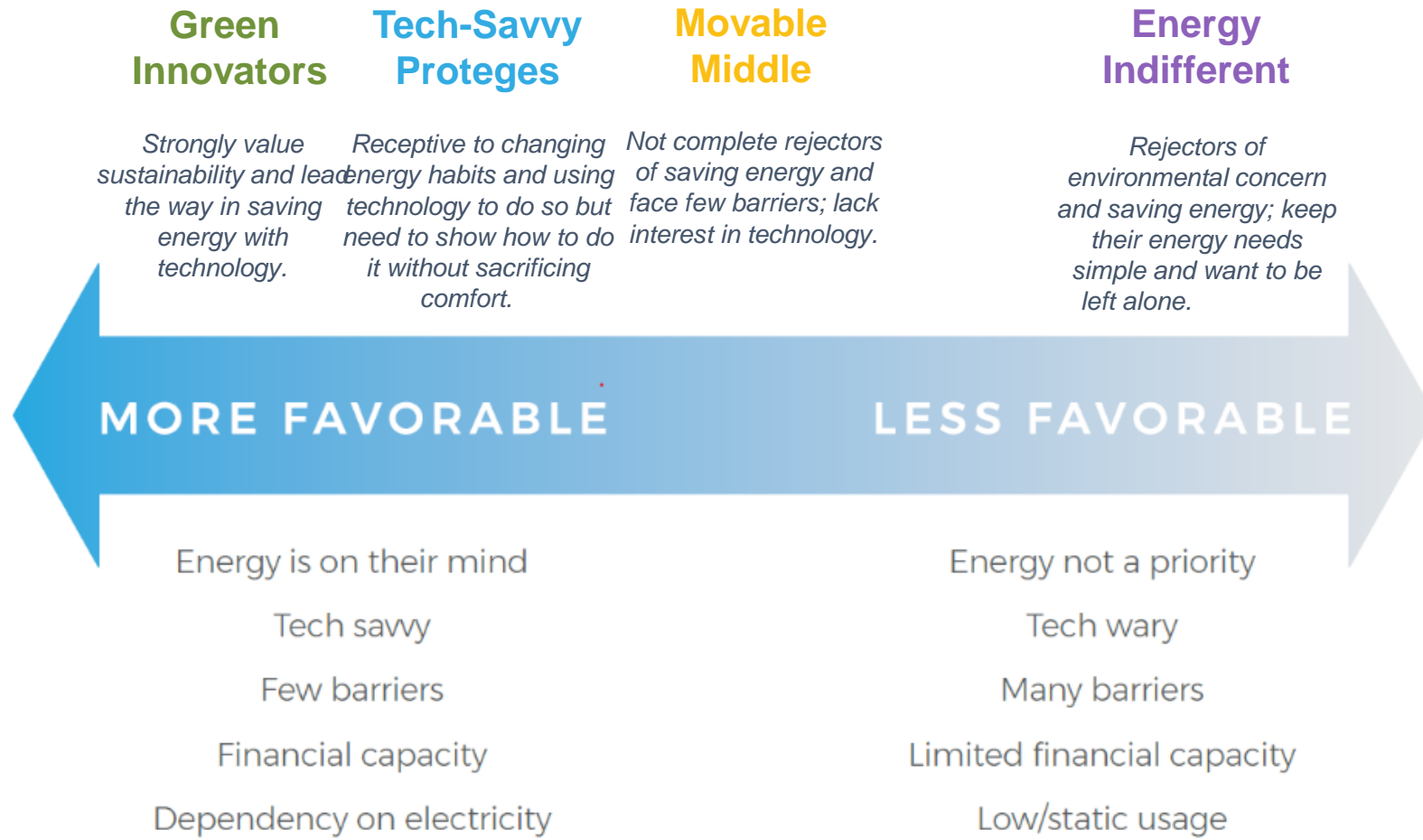


How does it come together?

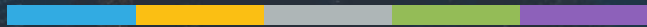
The combined MaxDiff exercise and IAT results provide us with a white space opportunity map. This intersection of behavior and emotion uniquely unlocks the System 1 pathway to behavior.



SECC Consumer Segmentation



Crossroads Analysis



‘Electricity is becoming cleaner and more renewable everyday’ is the winning message.

Closing the gap between what consumers say and what they do is key to ensuring messaging motivates consumers to take action against climate change. A strong implicit agreement across all segments shows **this statement is part of consumers unconscious or System 1 thinking**, creating a strong emotional connection.

When consumers are forced to make choices as to what is most important to them, this statement also rises to the top across all segments. By combining a strong emotional connection with consumer choices, **the top statement closes the gap between what consumers claim and how they behave.**



'Cleaner and more renewable' is the strongest statement, leading on implicit agreement and importance.



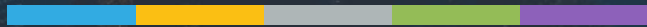
Crossroads Analysis (Total)



1. I am trying to reduce my greenhouse gas emissions
2. I am concerned about air pollutants inside my home
3. I am concerned about my community's air quality
4. Saving money is more important to me than saving the environment
5. Saving money is more important to me than improving the air I breathe
6. Electricity from renewable sources reduces greenhouse gas emissions
7. The government isn't doing enough to reduce greenhouse gases
8. The increase in extreme weather is concerning to me
9. Climate change is impacting how I use energy
10. Electricity emits more greenhouse gases than natural gas
11. Electricity is becoming cleaner and more renewable everyday
12. Banning natural gas will help reduce greenhouse gas emissions
13. Buildings should favor electricity over natural gas to reduce greenhouse gas emissions
14. Any little bit of renewable energy helps prevent climate change
15. I am concerned about the safety of natural gas in homes
16. I am concerned about the safety of electricity in homes
17. If my electricity provider switched to using renewable sources, this would increase my bill
18. Buying electric vehicles is for the wealthy
19. New homes that are 100% electric are often more expensive than new homes that are not 100% electric
20. EVs reduce greenhouse gas emissions compared to gas-powered automobiles
21. I would only reduce my greenhouse gas emissions if it saves me money
22. Moving to electric vehicles and all-electric buildings will strain the power grid, potentially impacting reliability

Base: All Respondents (n=1201)
 Q_IATPersonal. Does this statement describe how you feel about energy and the environment?
 Q_MaxDiff1. Please indicate which of the following statements MOST applies to you, and which one applies the LEAST.

Segment Analysis



For the Energy Indifferent, the least engaged segment, cost is a growing concern that should be mitigated.



Crossroads Analysis (Energy Indifferent)



1. I am trying to reduce my greenhouse gas emissions
2. I am concerned about air pollutants inside my home
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Base: Energy Indifferent (n=204)
 Q_IATPersonal. Does this statement describe how you feel about energy and the environment?
 Q_MaxDiff1. Please indicate which of the following statements MOST applies to you, and which one applies the LEAST.

The strength the Movable Middle has with 'cleaner and more renewable' causes it to pull away from the pack.



Crossroads Analysis (Movable Middle)



1. I am trying to reduce my greenhouse gas emissions
2. I am concerned about air pollutants inside my home
3. I am concerned about my community's air quality
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22. Moving to electric vehicles and all-electric buildings will strain the power grid, potentially impacting reliability

Base: : Moveable Middle (n=218)
 Q_IATPersonal. Does this statement describe how you feel about energy and the environment?
 Q_MaxDiff1. Please indicate which of the following statements MOST applies to you, and which one applies the LEAST.

'Cleaner and more renewable' performs well, but is slightly less emotionally appealing for the Tech-Savvy Proteges.



Crossroads Analysis (Tech-Savvy Proteges)



1. I am trying to reduce my greenhouse gas emissions
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Base: Tech-Savvy Proteges (n=461)
 Q_IATPersonal. Does this statement describe how you feel about energy and the environment?
 Q_MaxDiff1. Please indicate which of the following statements MOST applies to you, and which one applies the LEAST.

'Any little bit of renewable' is also a strong runner up to 'cleaner and more renewable' for Green Innovators.



Crossroads Analysis (Green Innovators)



1. I am trying to reduce my greenhouse gas emissions
2. I am concerned about air pollutants inside my home
3. I am concerned about my community's air quality
4. Saving money is more important to me than saving the environment
5. Saving money is more important to me than improving the air I breathe
6. Electricity from renewable sources reduces greenhouse gas emissions
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21. I would only reduce my greenhouse gas emissions if it saves me money
22. Moving to electric vehicles and all-electric buildings will strain the power grid, potentially impacting reliability

Base: Green Innovators (n=318)
 Q_IATPersonal. Does this statement describe how you feel about energy and the environment?
 Q_MaxDiff1. Please indicate which of the following statements MOST applies to you, and which one applies the LEAST.

An aerial night view of a city, likely Boston, showing a river and numerous lit-up buildings. A large diagonal graphic consisting of three overlapping stripes (light blue, grey, and yellow) runs from the top left towards the bottom right, partially obscuring the city view.

Thank You.

maru/matchbox[®]
Spark better connections



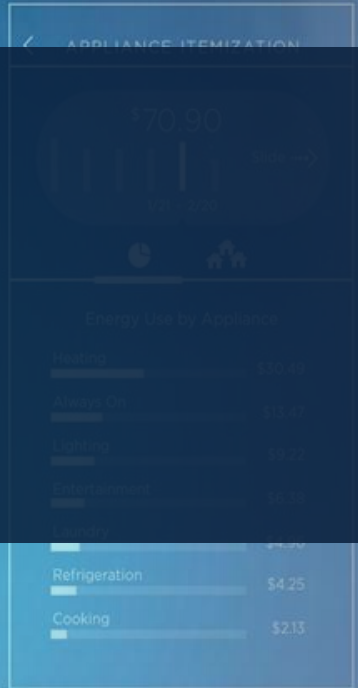
bidgely UtilityAI™

Electrification Overview

Increase Customer Satisfaction

Drive Customer Insights and Programs

Cost to Serve



BIDGELY : WHO WE ARE



is an AI-powered SaaS company based in the Silicon Valley.

To unlock the power of data and AI for the modern energy provider, enabling them to achieve their strategic goals while engaging their customers.



EV DETECTION & ESTIMATION

Identify the adoption and growth rate of EVs



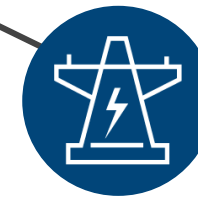
ELECTRIFICATION

Educate and promotion EV opportunities through personalized alerts



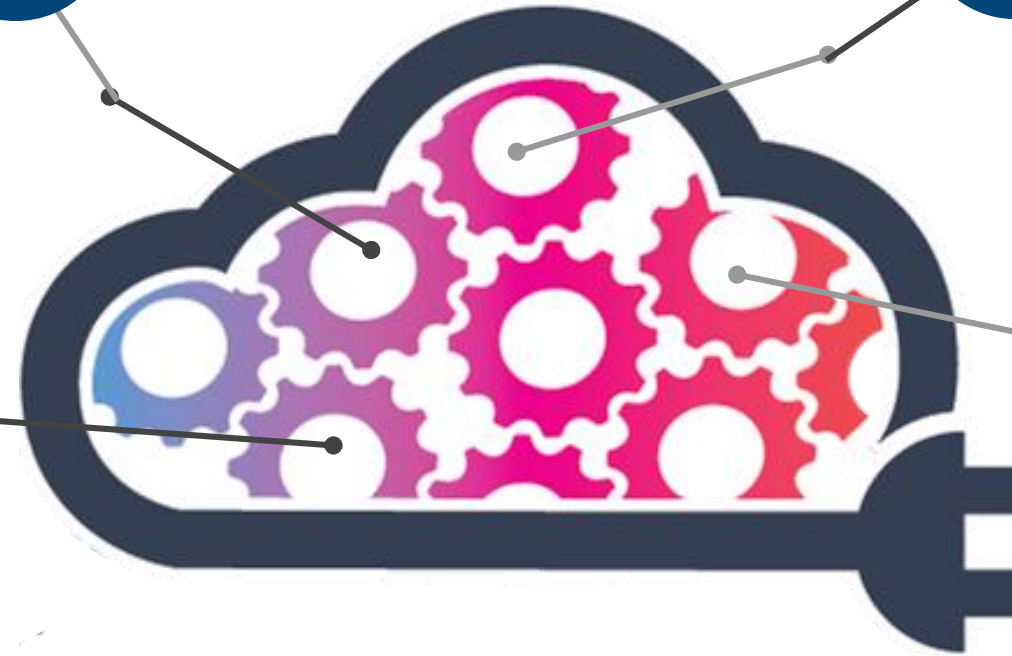
EV LOAD DISTRIBUTION ANALYSIS

Identify who is charging at what hours and identify which regions may have grid problems first

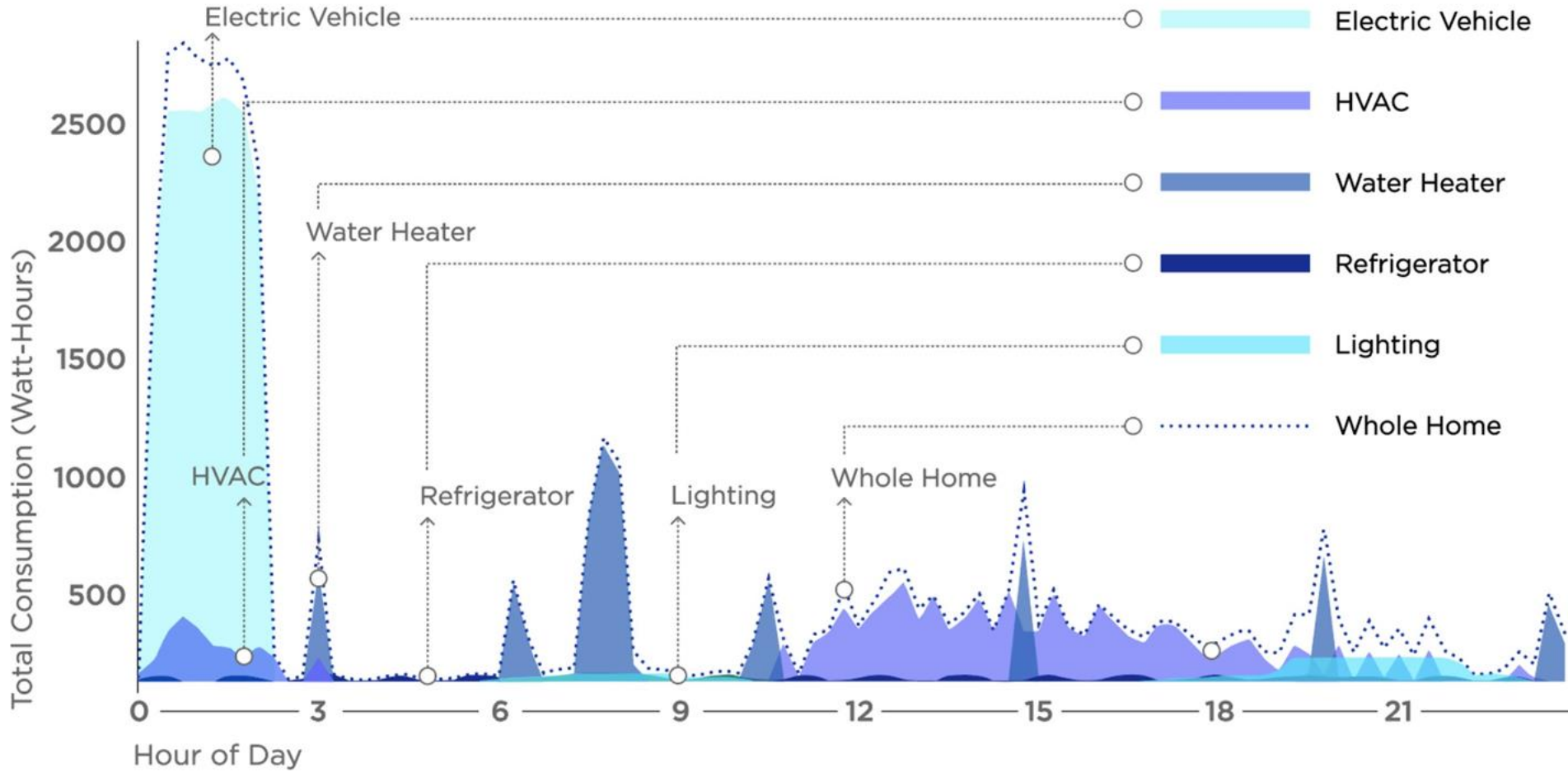


EV LOAD SHAPING

Directly shape peak load curves by enrolling customers in behavioral alerts and controlled EV charging programs



LOAD DISAGGREGATION TECHNOLOGY



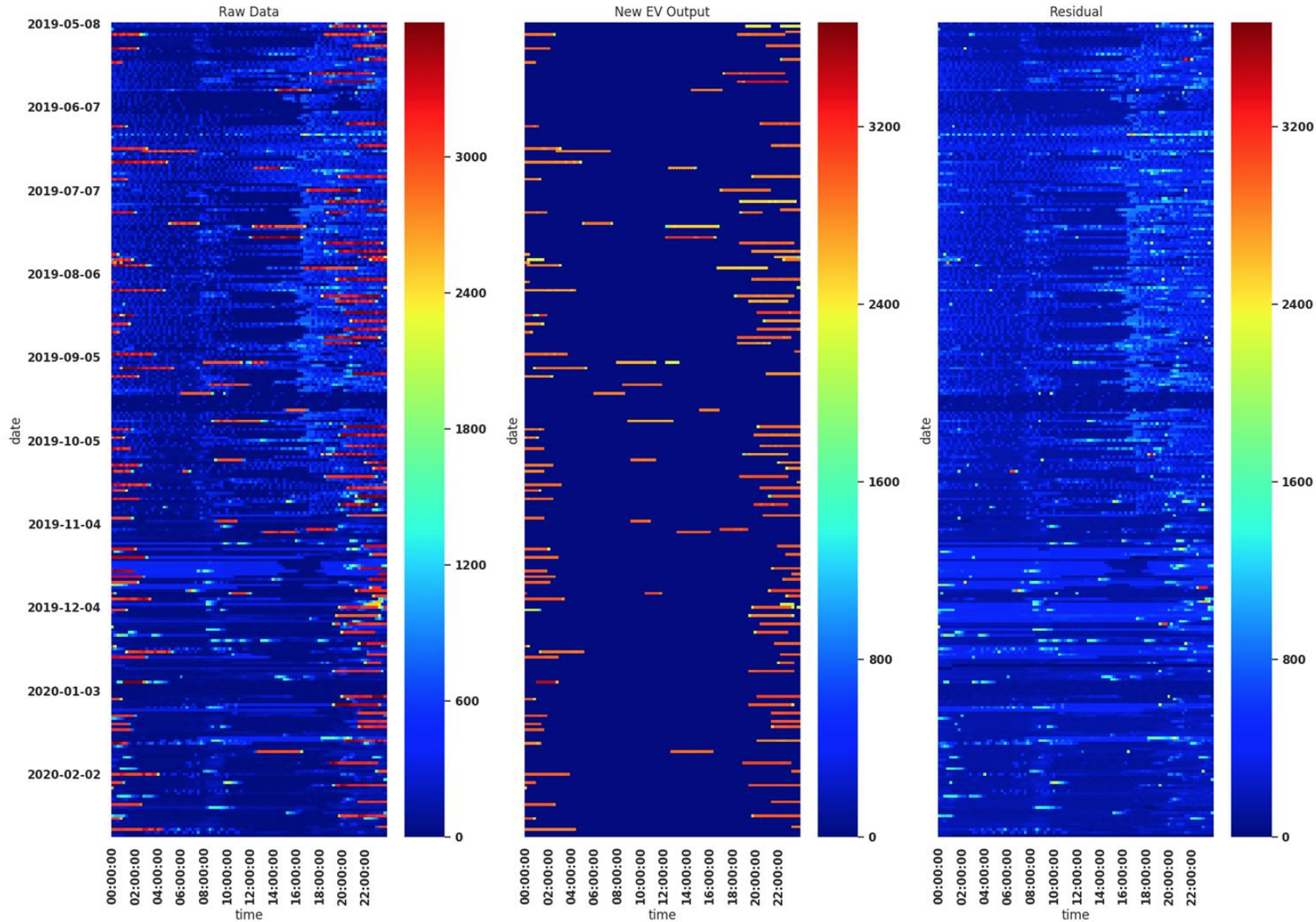
14 Patents

No Hardware Required

Dual Fuel
Electric & Gas

Zero Customer Inputs
Required

LEVEL 2 TYPICAL EV CHARGING



User Attributes

Charger Type	L2
Amplitude	11900 W
# runs peak hours (winter)	3
Consumption Peak Hours (winter)	64.437 kWh
# runs peak hours (summer)	10
Consumption Peak Hours (summer)	425.814 kWh

Image Description

Heatmap-1: Input Data

Heatmap-2: EV Output

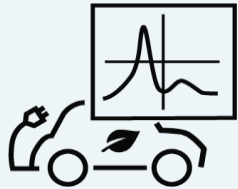
Heatmap-3: Residual Data

BIDGELY EV SOLUTION

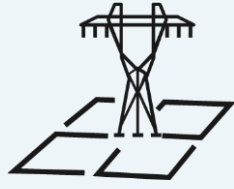
PHASE 1: EV Analytics



EV Detection



EV Estimation



EV Load
Forecasting

PHASE 2: Behavior-Based Load Management



TOU Rates
Education &
Optimization

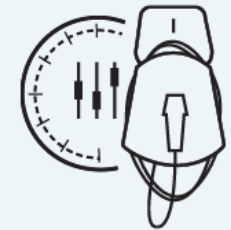


EV Charging
Education



EV Charging
Behavioral
Load Shifting

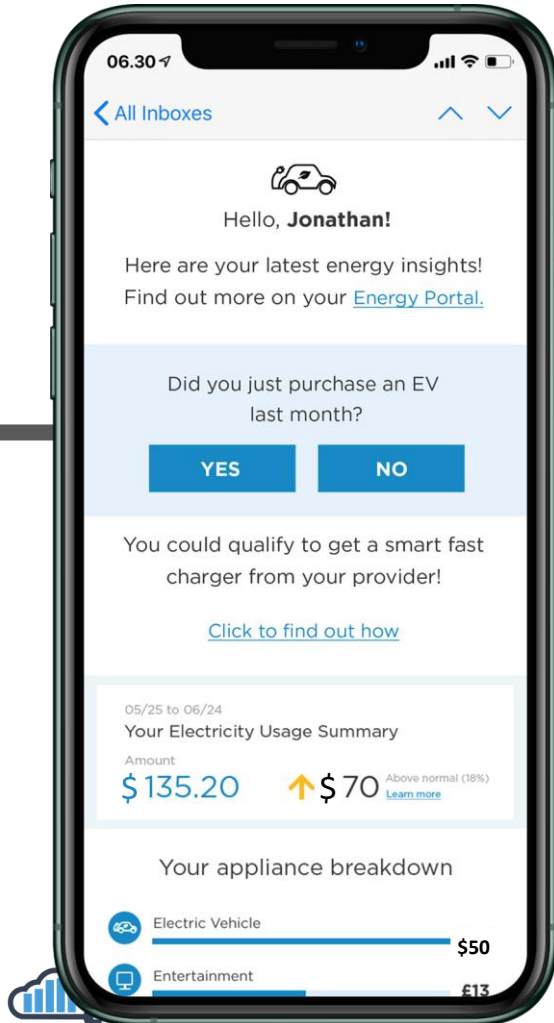
PHASE 3: DER Controls



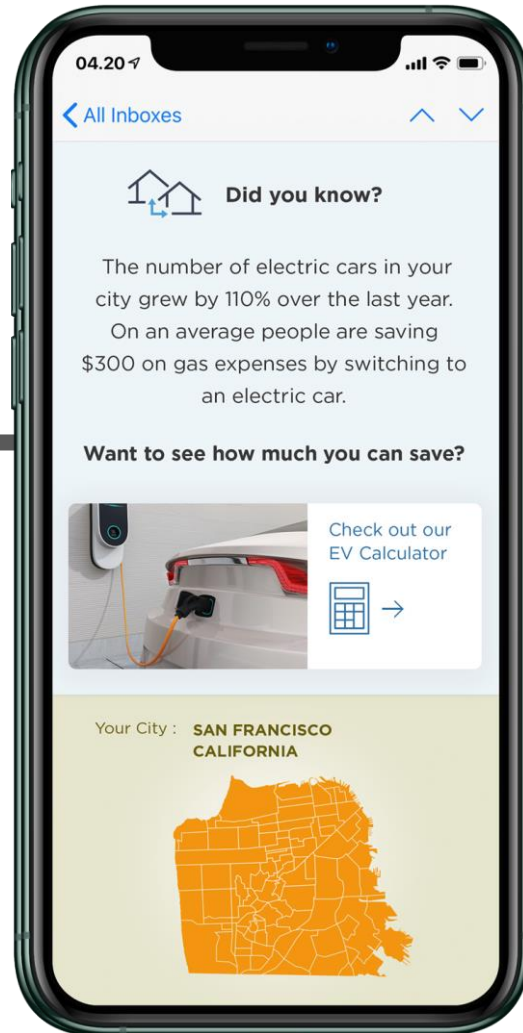
EV DR Controls
Recruitment

EV JOURNEY: SEQUENCE OF INTERACTIONS

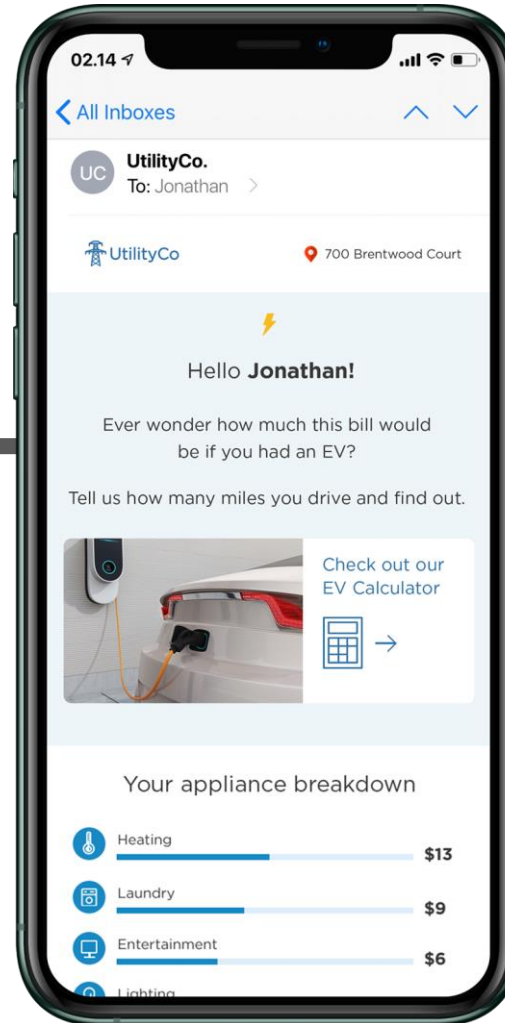
EV Detected



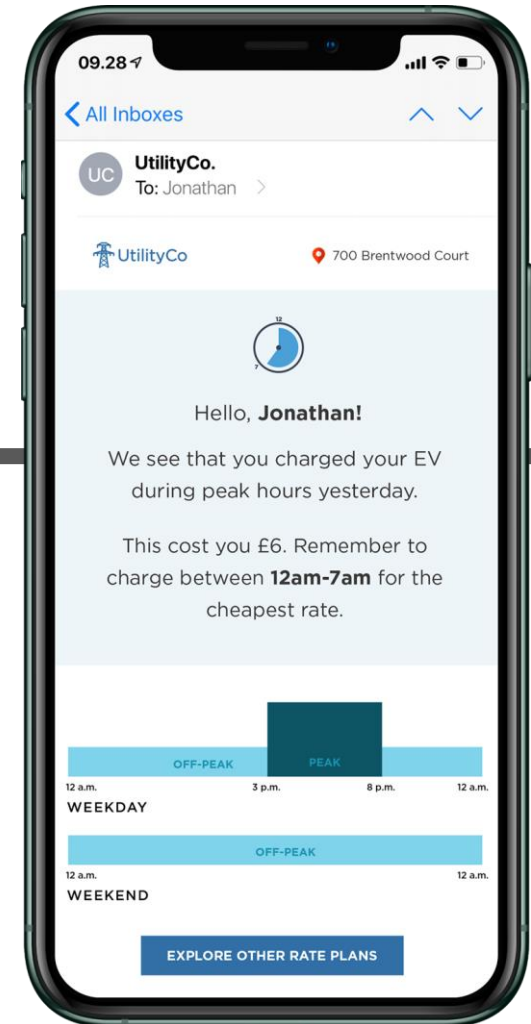
Enrollment



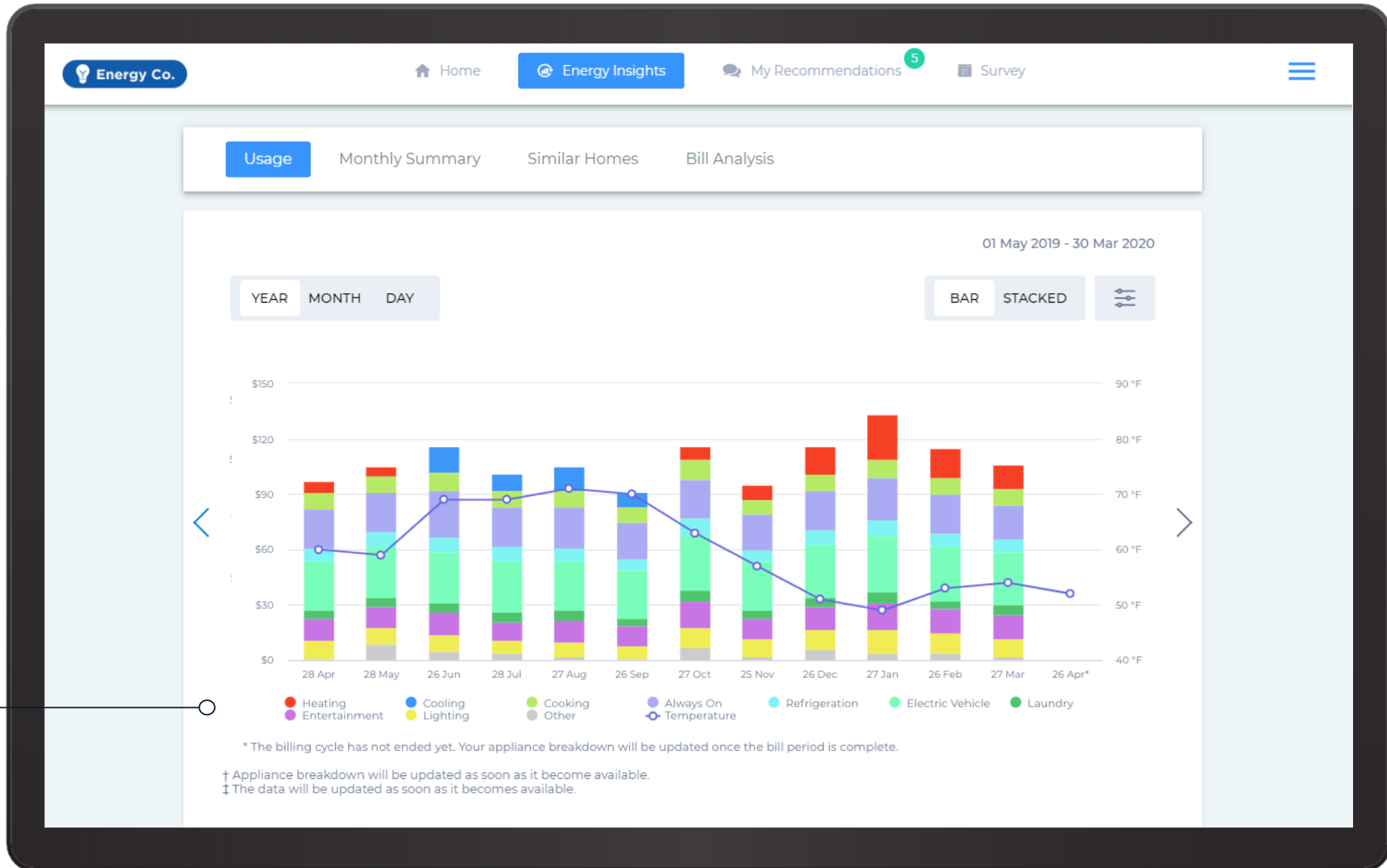
Education



Performance Review



EV CHARGING IN WEB ENERGY PORTAL



EV CHARGING SPENDING

Thank You!



Colin Gibbs
Vice President, Strategy & Growth
cgibbs@bidgely.com

MEETING CONSUMER EXPECTATIONS

Eddie Webster

Senior Director, Business Development



69% of customers expect Amazon like buying experiences

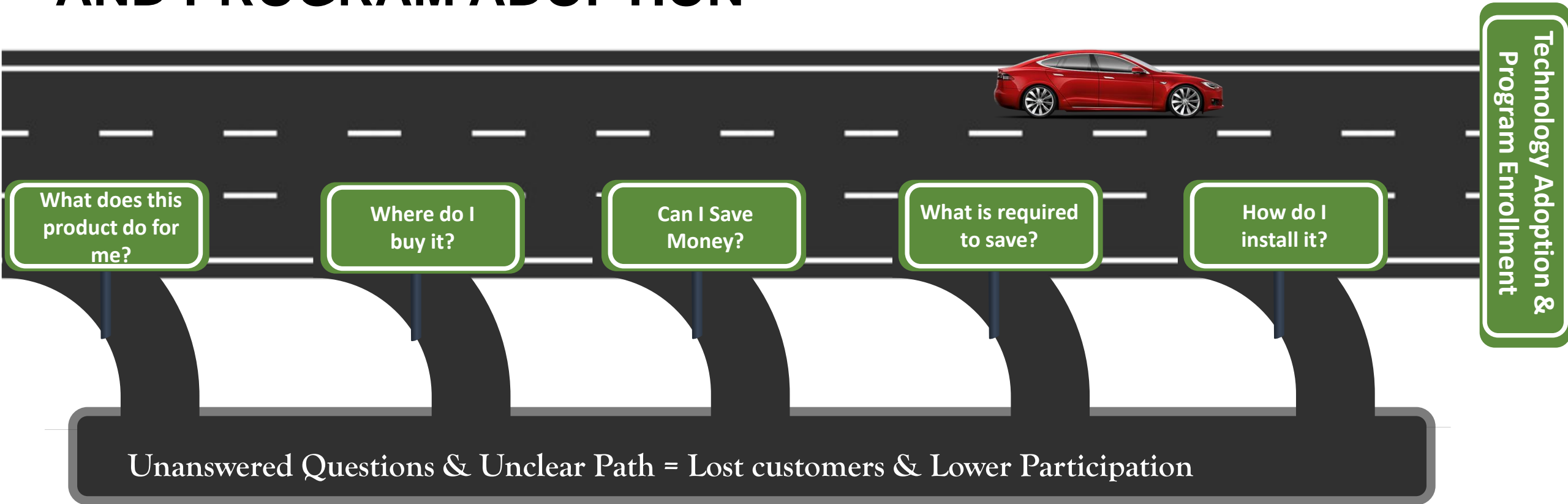
89% of business buyers expect companies to understand their unique needs and expectations

75% of consumers are more likely to purchase when provided with a personalized recommendation

70% of customers say connected processes are very important to their buying decision

88% of consumers want brands to help them be eco-friendlier

REMOVING BARRIERS TO TECHNOLOGY AND PROGRAM ADOPTION



Educate, motivate, and streamline the customer journey by:

- Simplifying the message
- Highlighting the benefits
- Providing Tailored recommendations
- Facilitating action
- Providing comprehensive solutions

INTEGRATED MARKETPLACES

How can you save with a smart thermostat?

Smart thermostats are designed to learn and detect a household's occupancy patterns and comfort levels, then automatically adjust the heating and cooling settings accordingly. This reduces energy waste when the home is unoccupied while ensuring desired comfort levels.

Before you purchase a thermostat, check compatibility here.

Start shopping below or read more.

VIEW AS

Home > Shop > Smart Thermostats > Ecobee Smart Thermostat With Voice Control

CATEGORIES

SALE

SHOP

SHOP BY PRICE

BRANDS

Simply Conserve

Google

Emerson

Ecobee

TrickleStar

View All

FEATURED PRODUCTS



Ecobee
ecobee Smart Thermostat with Voice Control
Price ~~\$249.00~~
\$149.00 - \$199.00

Ecobee
ecobee3 Lite Smart Thermostat
Price ~~\$169.00~~
\$69.00 - \$119.00

Ecobee
ecobee Smart Sensors 2-pack
Your Price: \$79.00

ecobee Smart

Ecobee

SKU: EB-STATES-01-3N

Maximum Purchase: 3

Price: \$249.00

Your Price: *

Thermostat

\$149.00

Available to

Auto adjust

Thermostat

\$199.00

Before you purchase, please check compatibility with your thermostat account. Check here.

Quantity:

1

ADD TO CART

- 1 Review Program Details
- 2 Confirm Eligibility
- 3 Enroll In Program
- 4 Create Store Account

Peak Time Savings Program

Here's how it works:

1

The Peak Time Savings Program syncs to your smart thermostat to understand what keeps you comfortable and how your home uses energy.



2

Occasionally, on those really hot days when the demand for energy is high, the program will schedule a Peak Time Savings Event. These events pre-cool your home using your comfort preferences when the demand for energy is lower. This helps you stay comfortable before, during, and after the event while conserving energy during peak times. You will be notified before every event and the program will take care of the rest.

3

You always have control and can adjust the temperature in your home at any time.



You will get extra savings for enrolling.

On top of the \$50 Ameren Missouri instant rebate on the purchase of a smart thermostat, you can now claim an additional one-time \$50 sign-up bonus at the time of purchase by agreeing to enroll your qualifying smart thermostat in the Peak Time Savings program. Plus, you'll get an extra \$25 every year you stay enrolled.



Beneficial Electrification: Meeting Consumers' Expectations

SECC Virtual Members Meeting

October 2020

Touchstone Energy[®] is a national brand that supports its network of electric cooperatives across 46 states in *achieving outstanding member satisfaction* with our innovative partnerships, resources and services to help these organizations & their employees better engage and serve their communities.



**THE COOPERATIVE
DIFFERENCE KEEPS
TOUCHSTONE
ENERGY
COOPERATIVES
ABOVE OTHER
UTILITY GROUPS**

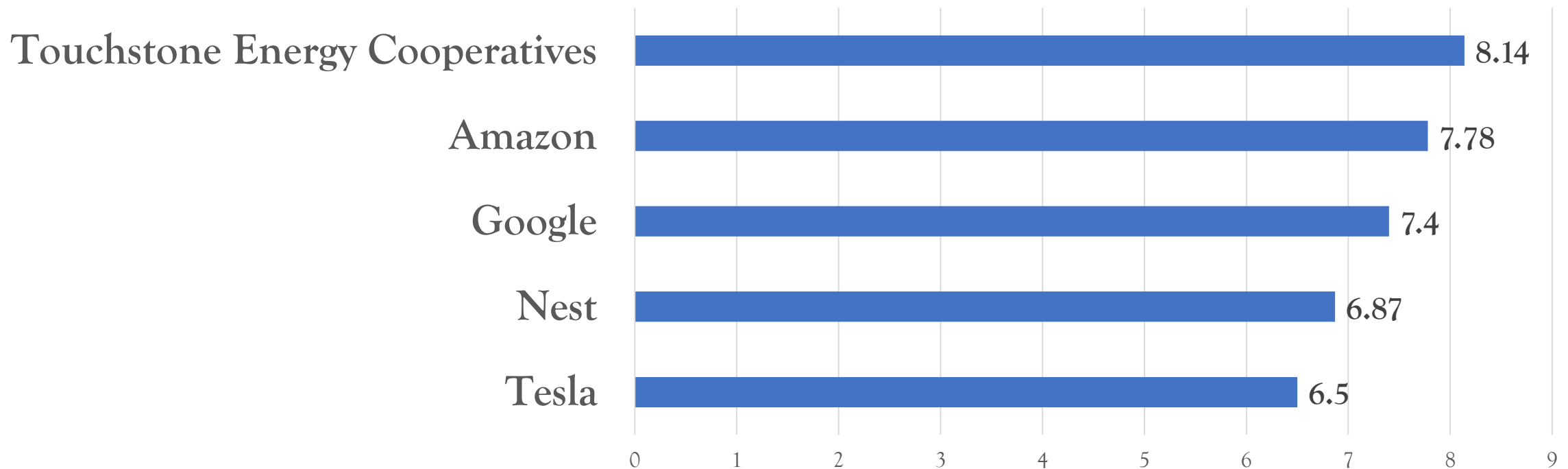


Position cooperatives
as the trusted source
for their members



Agreement These Are Brands You Can Trust

On a Scale of 1-10



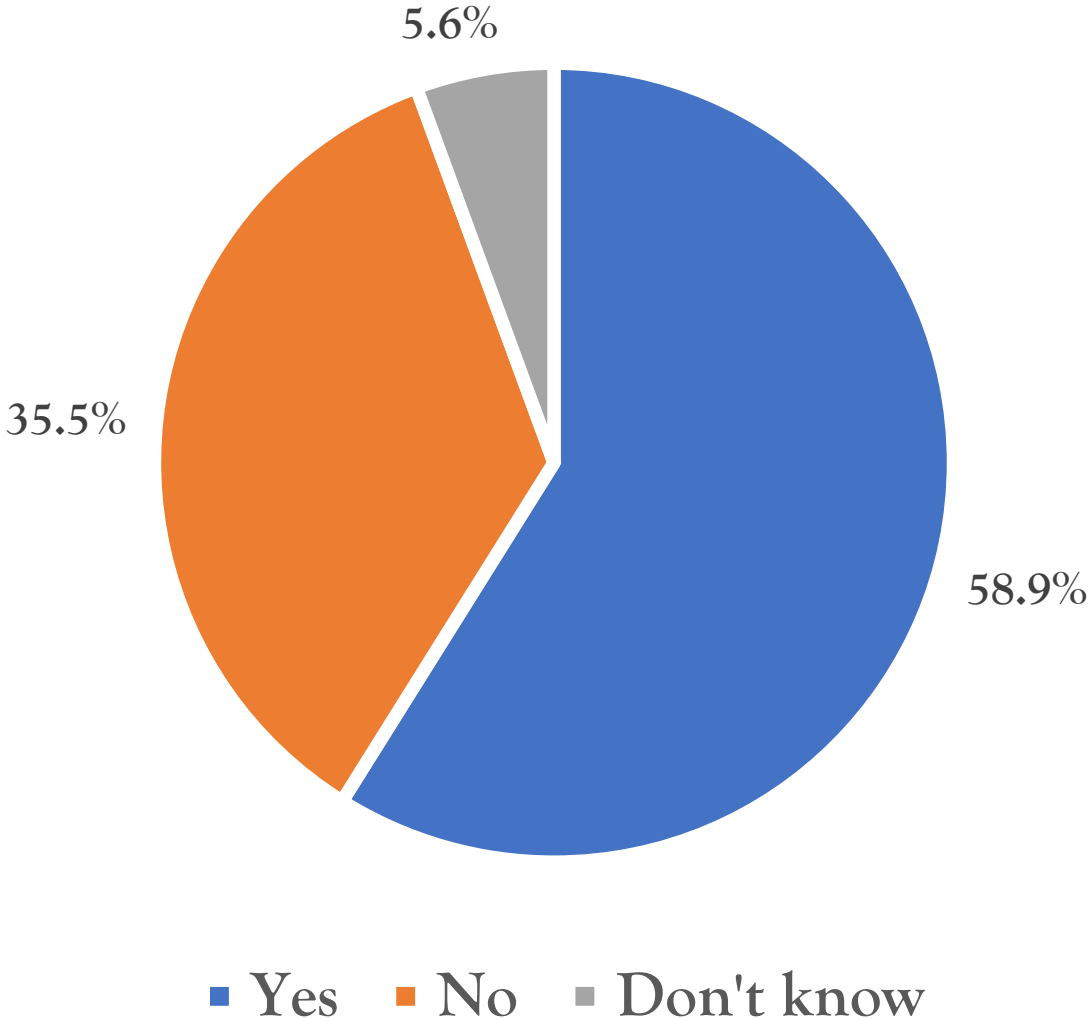


Touchstone Energy®
Cooperatives



**Of Members would return to the
co-op for advice on managing
energy use.**

Q.CO1: Recall hearing/seeing communications from co-op during past six months





Advertising themes

Cooperative Difference | Community

Savings | Safety

Trusted Source | Renewables



Visit TouchstoneEnergy.com to learn more about us.

Jason McGrade

Sr. Program Manager, Strategic Operations

Touchstone Energy Cooperatives

Jason.McGrade@nreca.coop

703.907.6063



Beneficial Electrification

Keith Dennis

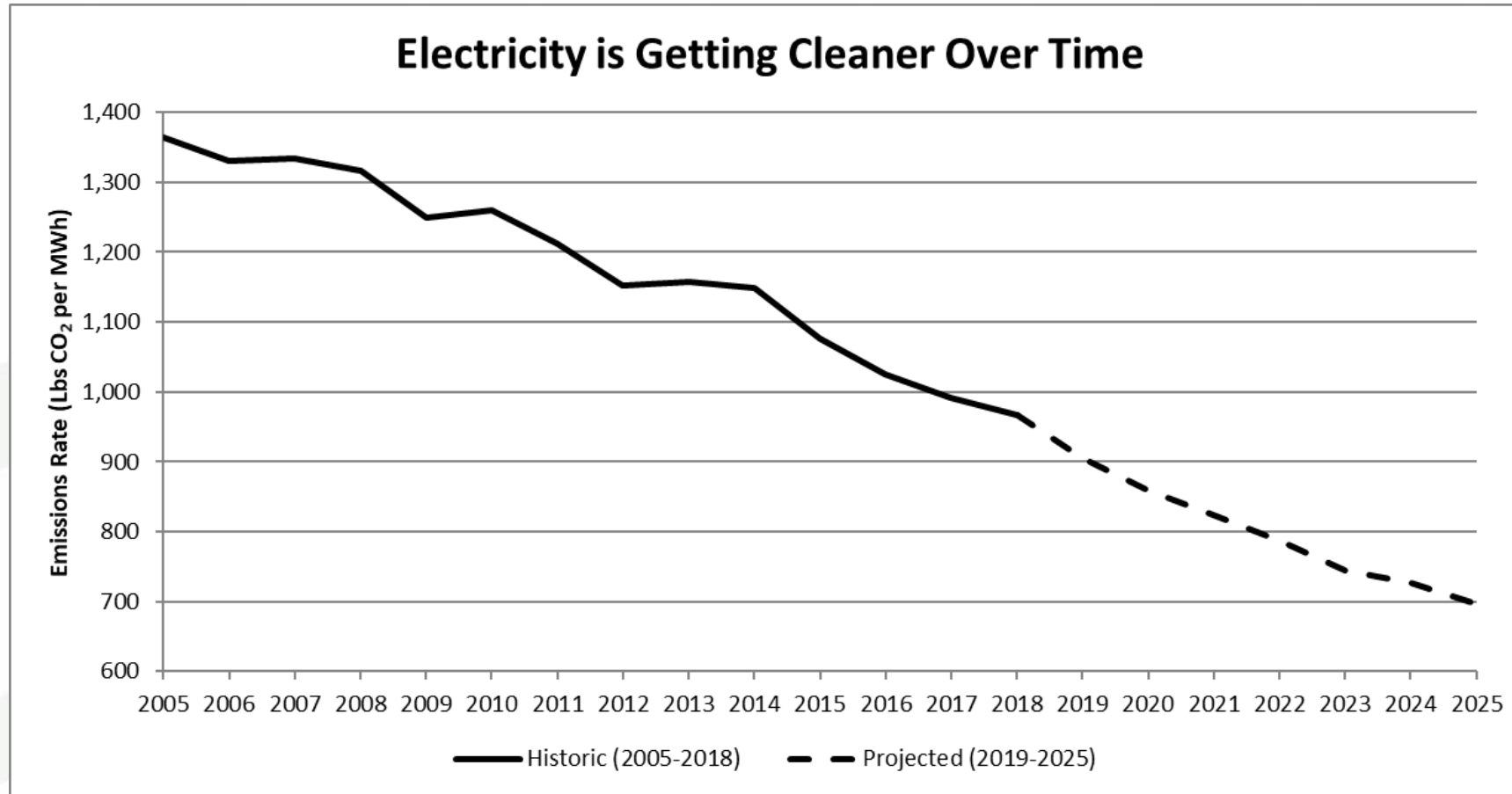
Vice President, Consumer Member Engagement, BTS

Why Are We Talking About Electrification Now?

- Wasn't electrification done 100 years ago?
- Trends in technology and culture leading to a new movement for electrification.
- With this change comes strategic business challenges and opportunities.

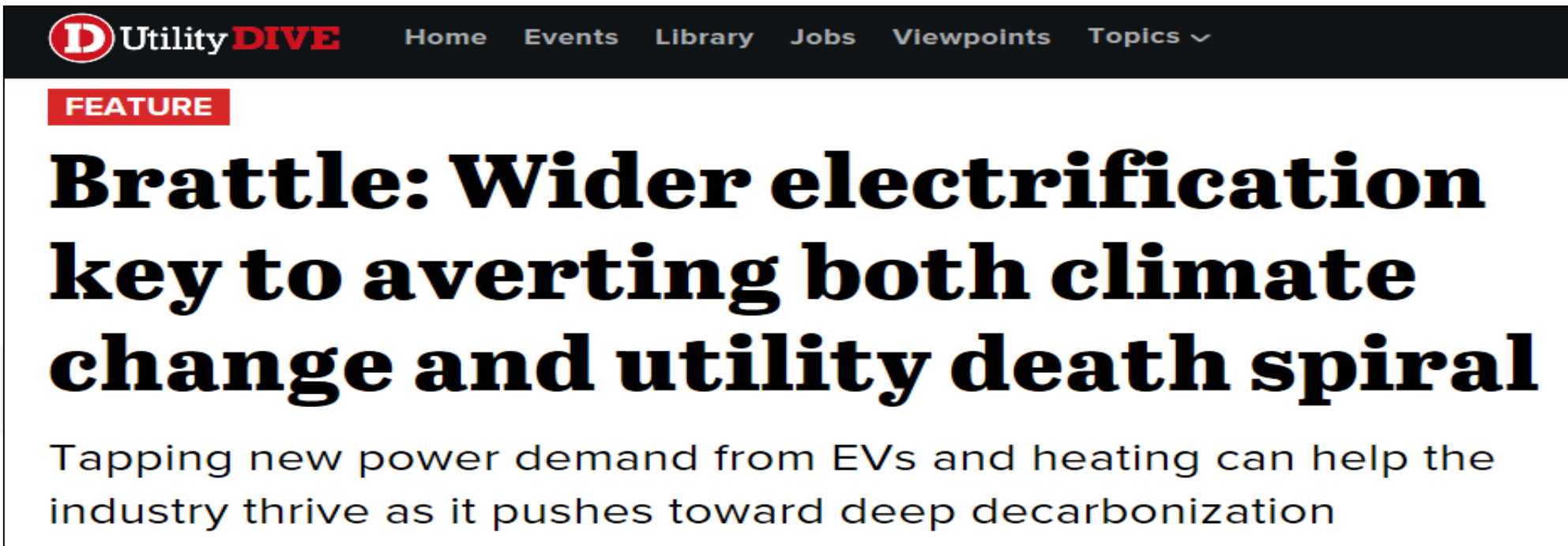


Opportunity for BE to Improve “Emissions Efficiency”



By virtue of being plugged into the grid, the environmental performance of electric devices improves over time.

Overlapping Interests: Electricity as Common Element



The screenshot shows the top portion of a webpage. At the top left is the 'Utility DIVE' logo, with 'Utility' in white and 'DIVE' in red. To the right are navigation links: 'Home', 'Events', 'Library', 'Jobs', 'Viewpoints', and 'Topics' with a dropdown arrow. Below the navigation is a red box with the word 'FEATURE' in white. The main headline is in large, bold, black font: 'Brattle: Wider electrification key to averting both climate change and utility death spiral'. Below the headline is a sub-headline in a smaller, regular black font: 'Tapping new power demand from EVs and heating can help the industry thrive as it pushes toward deep decarbonization'.

- NRECA Resolution: “Promoting the Benefits of End-Use Electrification” (2018)
- *Industry has unlocked tens or maybe hundreds of millions of dollars into this (EPRI, IOUs through end-use programs)*



Overview – What is Beneficial Electrification



Video available at: www.beneficialelectrification.com

What is “Beneficial Electrification?”

Beneficial Electrification includes the application of electricity to end-uses where doing so satisfies at least one of the following conditions, without adversely affecting the others:

- Saves consumers money over time;
- Benefits the environment and reduces greenhouse gas emissions;
- Improves product quality or consumer quality of life;
- Fosters a more robust and resilient grid



Beneficial Electrification programs are a valuable opportunity to engage both electric utilities and environmental groups in the effort to identify solutions that work well for the end-use consumer, local communities and the environment.



NOT an “Electrify Everything” Concept

Interests are Beyond Just EVs



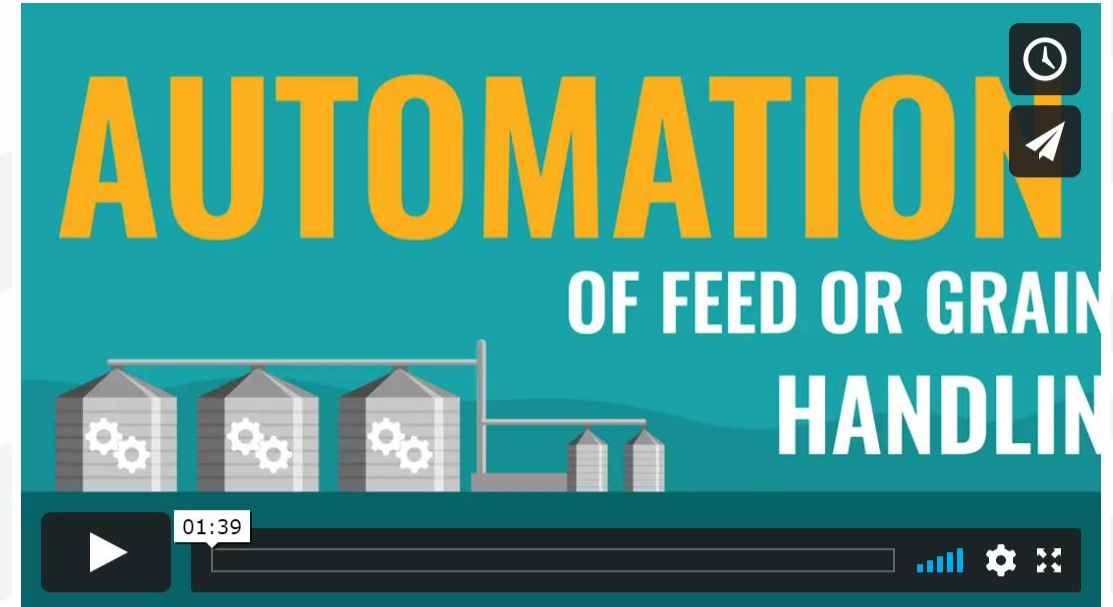
Consumer Videos / Messages



Electrify Your World!

An animated video that discusses the benefits of choosing electricity to power your everyday life, from your home, to your car and even your lawn equipment.

August 2020



For Businesses – Choose Electricity!

An animated video that discusses the benefits of electrifying businesses, from cost savings to performance improvements and meeting environmental and sustainability goals.

August 2020

Example: Steele-Waseca Water Heaters and Solar



Buy a 410 watt panel in the SUNNA project and get a free electric thermal storage water heater

- ▶ \$170 panel cost to consumer
- ▶ No siting issues
- ▶ No maintenance issues
- ▶ Hedge against future energy hikes



Interesting concept – How do we do this?

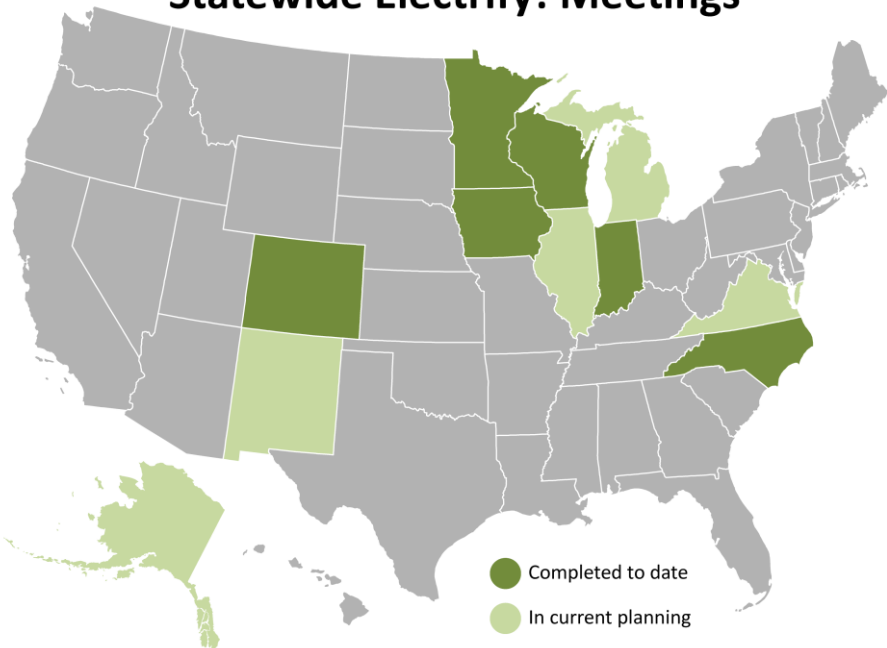
Image source: Tesla Motors



Electrify! Events

- We have partnered with BEL and NRECA statewide members to hold events in six states (Electrify MN, NC, CO, WI, IA, IN, VA, NM). AK, Planned.

Statewide Electrify! Meetings



Electrify MN Event – Nov 28, 2018

Further Contact Information

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Co-Chair of the Beneficial Electrification League