

Driving residential electric vehicle demand response by putting your customers first



Emma Rieves
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E Source

Our mission

To advance the efficient use of energy



Who we are

A research and consulting firm focused exclusively on utilities and their customers



Clients

We work with over 300 utilities and their partners



Founded

Founded in 1986, we've been in the industry for over 30 years



Headquartered

Boulder, CO

E Source Market Research Studies

US Residential Customer Insights

- Claritas Energy Behavior Track survey conducted annually in partnership with E Source
- Survey approximately 32,000 US residential customers
- Data available in the [Residential Customer Insights Center](#) tool

Residential DER Customer Market Research

- Annual North American residential survey conducted by E Source
- Designed to help you understand your customers' opinions and behaviors related to DER and electrification technologies
- Most recently fielded the survey in July 2019 and had 7,496 respondents

Residential Utility Customer Survey

- Annual survey of approximately 2,000 US customers
- Each year we explore a different topic
 - In 2018, we asked about customers' understanding and perceptions of electric vehicles

Goal

To help your utility improve its EV DR offerings



Increase EV adoption



Target the right customers at the right time



Make DR part of the EV value proposition



Make your messaging resonate with customers

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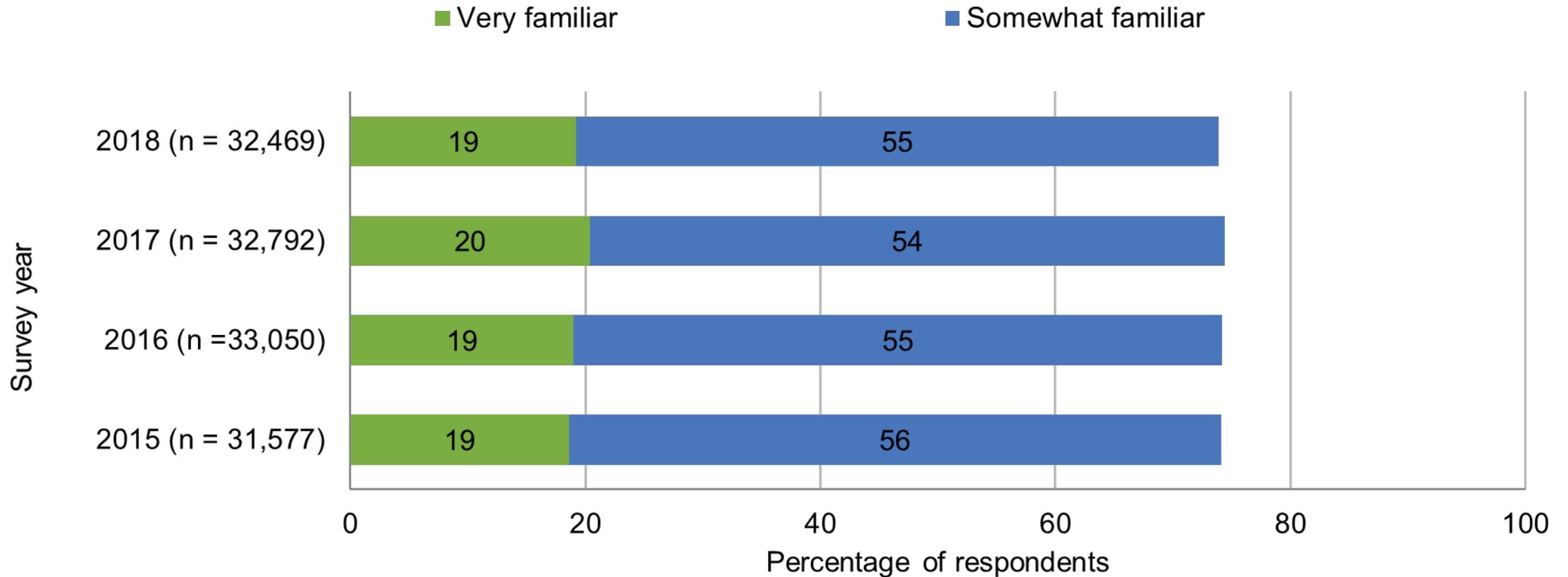


Make DR part of the EV value proposition



Make your messaging resonate with customers

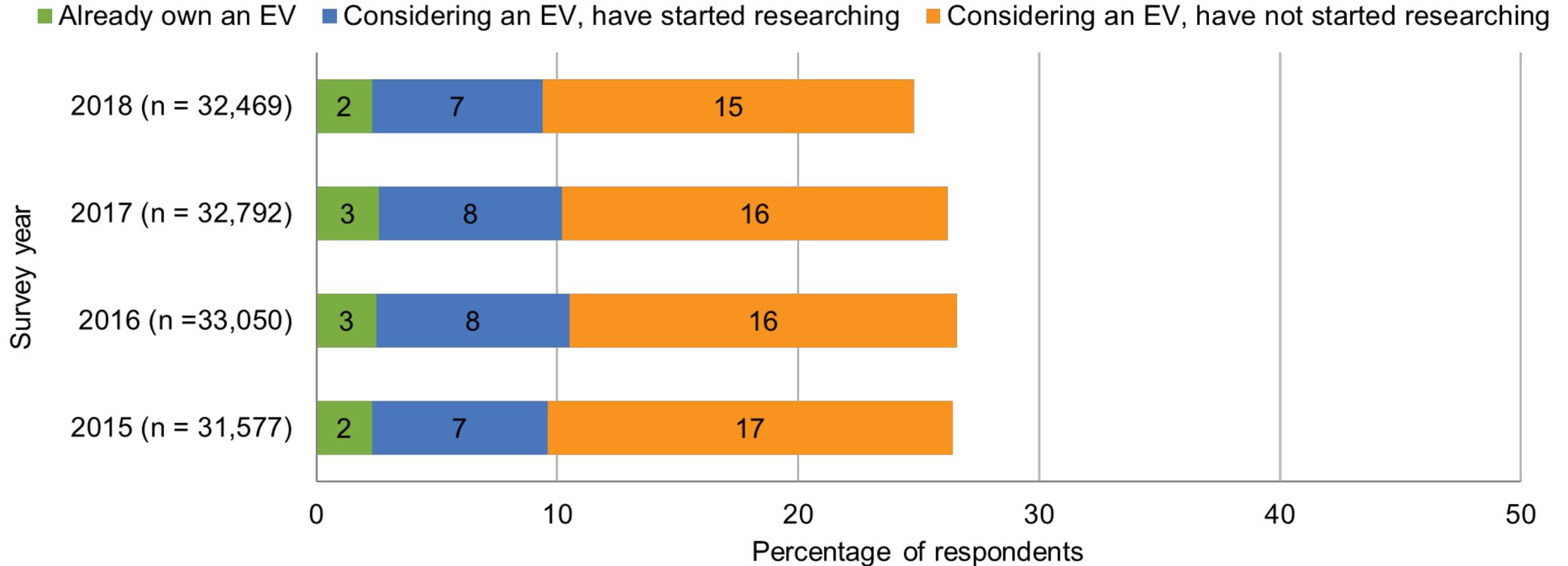
EV familiarity hasn't changed in four years



Base: n varies as shown. Question C2_5: How would you describe your familiarity with each of the following green/renewable technologies? All-electric vehicle that plugs in to charge.

© E Source (Claritas Energy Behavior Track Study)

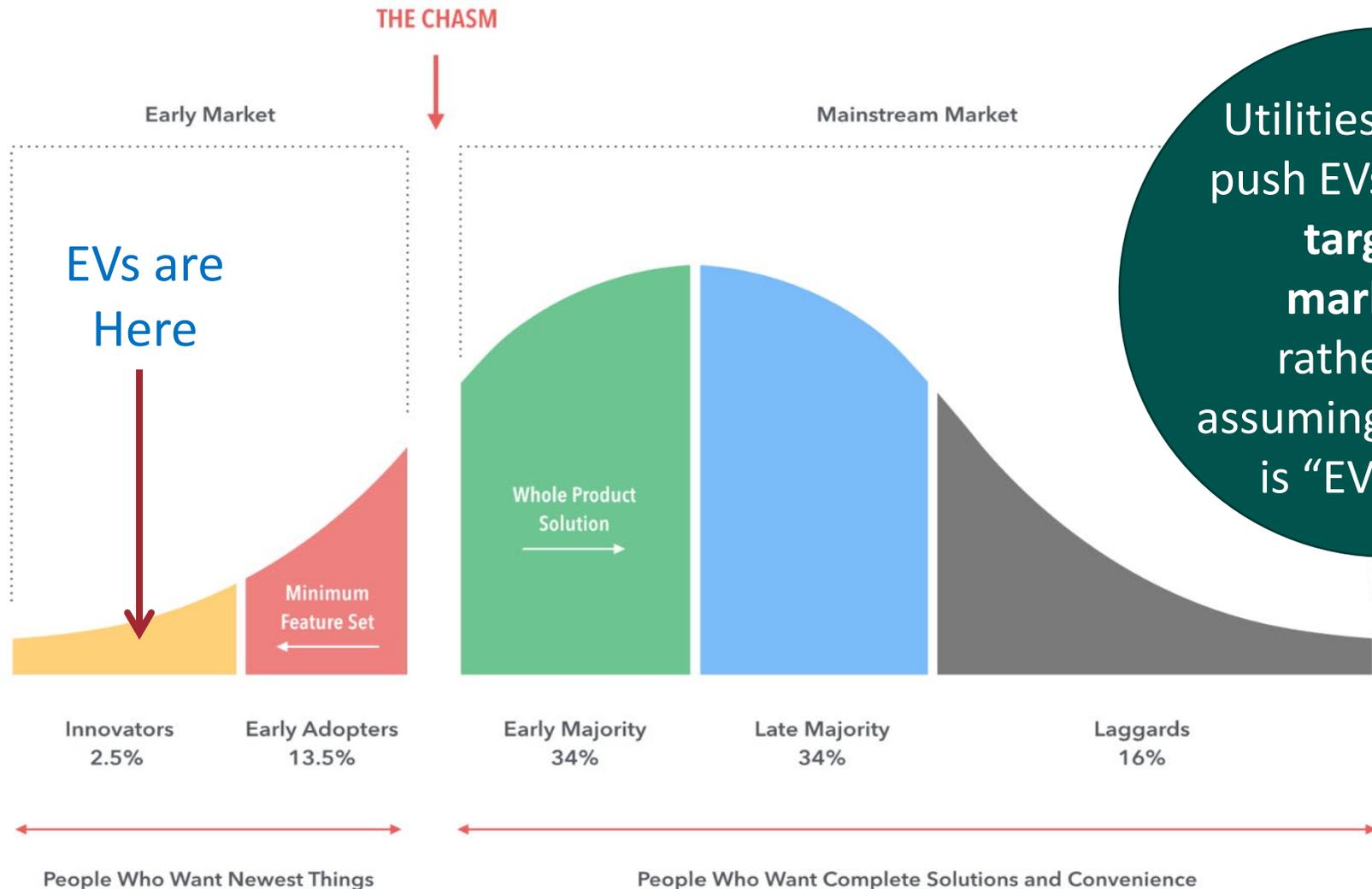
And neither has the number of customers purchasing or considering purchasing EVs



Base: n varies as shown. Question C3_5: Which statement best describes the stage you are at in the purchase process for the following green/renewable technologies within your primary residence (all-electric vehicles that plug in to charge)?

© E Source (Claritas Energy Behavior Track Study)

EV success is not a foregone conclusion



Utilities can help push EVs by doing **targeted marketing** rather than assuming everyone is "EV ready"

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Make your messaging resonate with customers

Understanding your customers is key

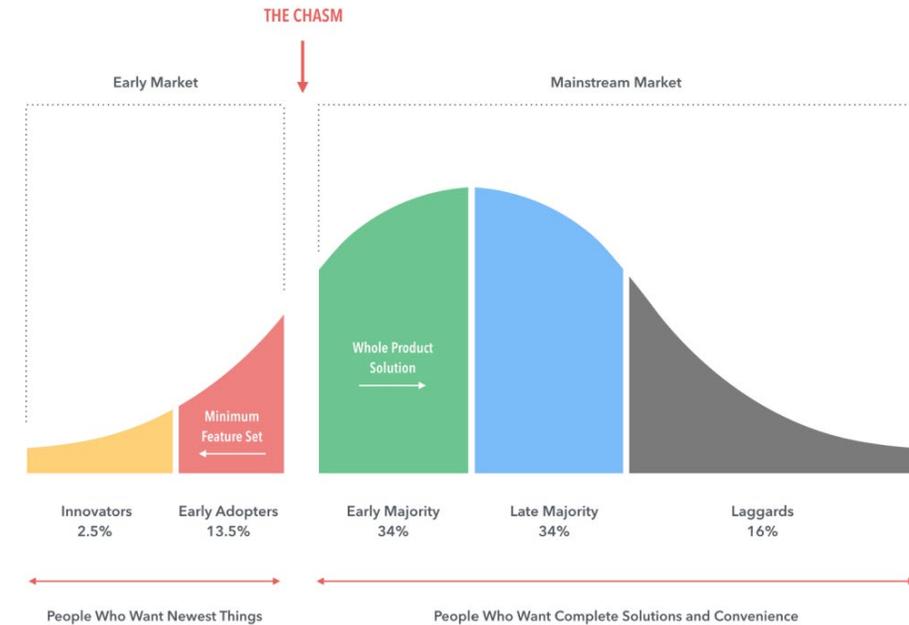
Focus on the innovators and early adopters who are “EV ready”

Innovators

- Are technology enthusiasts
- Require the shortest adoption period
- Take risks
- Understand and apply complex technical knowledge to cope with uncertainty
- Are motivated by the idea of being a change agent
- Blaze the trail for the next group of adopters

Early adopters

- Are visionaries
- Shape opinions
- Have a natural desire to be trendsetters (Tesla)
- Model behaviors within their social system
- Are adventurous (Tesla)
- Don't necessarily pay attention to costs (Tesla)
- Eager to try and test innovations
- Do *not* require a full solution set



Source: “Crossing the Chasm,” Geoffrey Moore

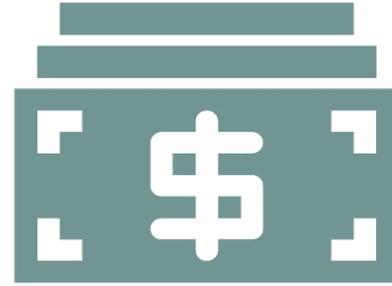
So who are they?



Live in urban and fringe areas



Homeowners



Affluent



In the process of buying a car



Young families



Tech-savvy



Likely to participate in an efficiency program



Educated

So who are they?

“The top barriers to purchasing an EV were cost and not needing a new car”

- The Essentials for Marketing Electric Vehicles, E Source



In the process of buying a car

Target customers that are already looking for a car

Customer problem	Opportunity	Case study: Evergy
<i>I'm not looking for a new car.</i>	<p>Target customers that are in the process of buying a car.</p> <p>Incorporate dealership outreach, education, and incentives into your EV program design and marketing.</p>	<p>Evergy targets customers searching for cars or EVs online. They also offer test drives at their showroom, engage dealerships, offer salesperson incentives, and vehicle promotions.</p>

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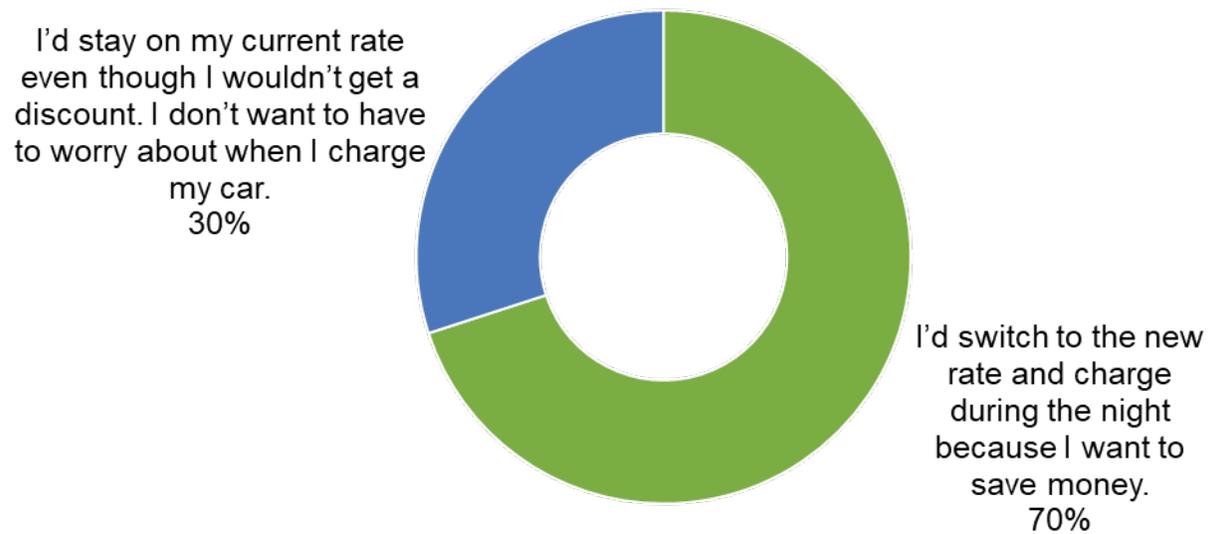
Make DR part of the EV value proposition



Make your messaging resonate with customers

What solutions do your customers want from you?

Customer interest in EV time-of-use (TOU) rates



Base: North American respondents without an EV, or those who have an EV, but aren't on TOU rates (n = 7,311). **Question S5_11:** Imagine that your utility offers you a special discounted price if you charge your vehicle after 9:00 p.m., but they charge a higher price if you charge in the late afternoon or early evening. Assume that your car could be programmed to charge at this time without any additional action on your part. Which best describes your likely action? **Note:** EV = electric vehicle. Percentages may not add to 100 due to rounding.

Top 3 (out of 14) most helpful EV charging equipment information

- 1 Information on incentives and tax credits I may be eligible for
- 2 Up-front and ongoing costs of different charging station options
- 3 The cost of adding a solar system I could use to charge my EV

Base: North American respondents with an EV charging station or interest in one (n = 1,528). **Question S5_8:** Which of the following information and resources would be or would have been helpful as you are or you were considering purchasing or leasing your household's home EV charging station? Select all that apply. **Note:** EV = electric vehicle.

Offer customers incentives aligned with DR

Customer problem	Opportunity	Case study: SDG&E
<p><i>EVs are too expensive.</i></p>	<p>Highlight the low total cost of EV ownership in terms of “fuel costs.”</p> <p>Make the economics pencil out by offering a TOU rate, and teach customers to charge off-peak from the very first time.</p>	<p>SDG&E found that customers show learning behavior and are very responsive to price signals.</p> <p>86% of customers charged at super off-peak times with a 2:1 TOU rate.</p>

Offer customers incentives aligned with DR

Problem	Opportunity	Case study: ConEdison
<p><i>I'm concerned about charging an EV.</i></p>	<p>Incentivize charging equipment and charging behavior. In addition to TOU rates, smart charging can help motivate your customers to charge their EVs in off-peak periods.</p>	<p>ConEdison and FleetCarma offer a SmartCharge program. Customers earn money and points for participating.</p> <p>Scheduled charging reinforces good charging habits.</p>

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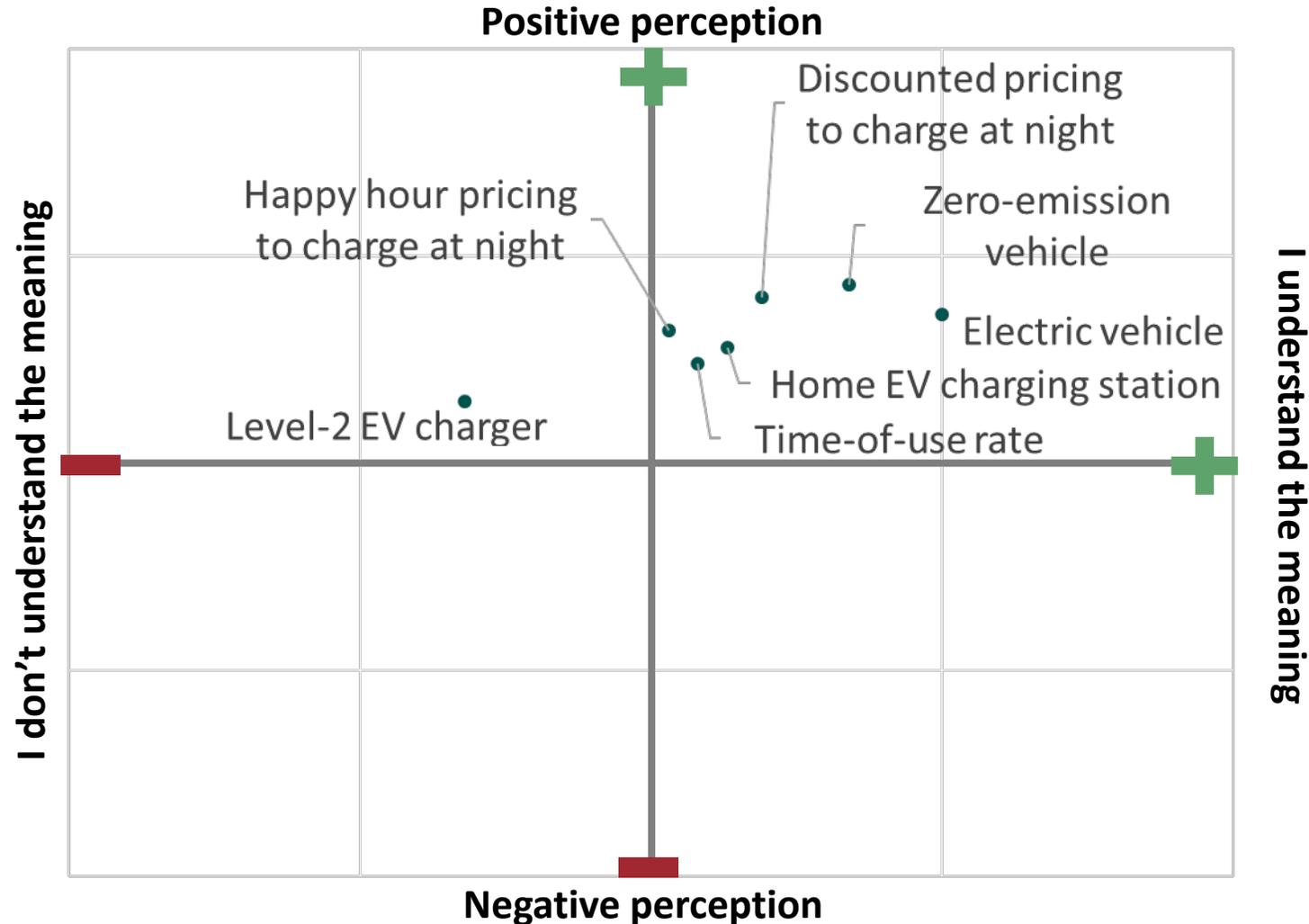


Make DR part of the EV value proposition



Make your messaging resonate with customers

Changing your messaging can improve customer comprehension and perception



Base: North American respondents (n = 2,001). Question S3_1A: How well do you understand the following terms and concepts? S3_1B: How would you rate your emotional response to these terms and concepts?

© E Source (2018 DER Residential Customer Market Research)

What messaging resonates with customers?

“Time-of-use rate”

“TOU EV rate schedule”



Try “discounted pricing to charge at night” instead

Key takeaways

To help your utility improve its EV DR offerings



**Increase EV
adoption**



**Target the right customers
at the right time**



**Make DR part of the EV
value proposition**



**Make your messaging
resonate with customers**

Thank you!



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