

Building electrification: Insights on customers, trade allies, and public policy

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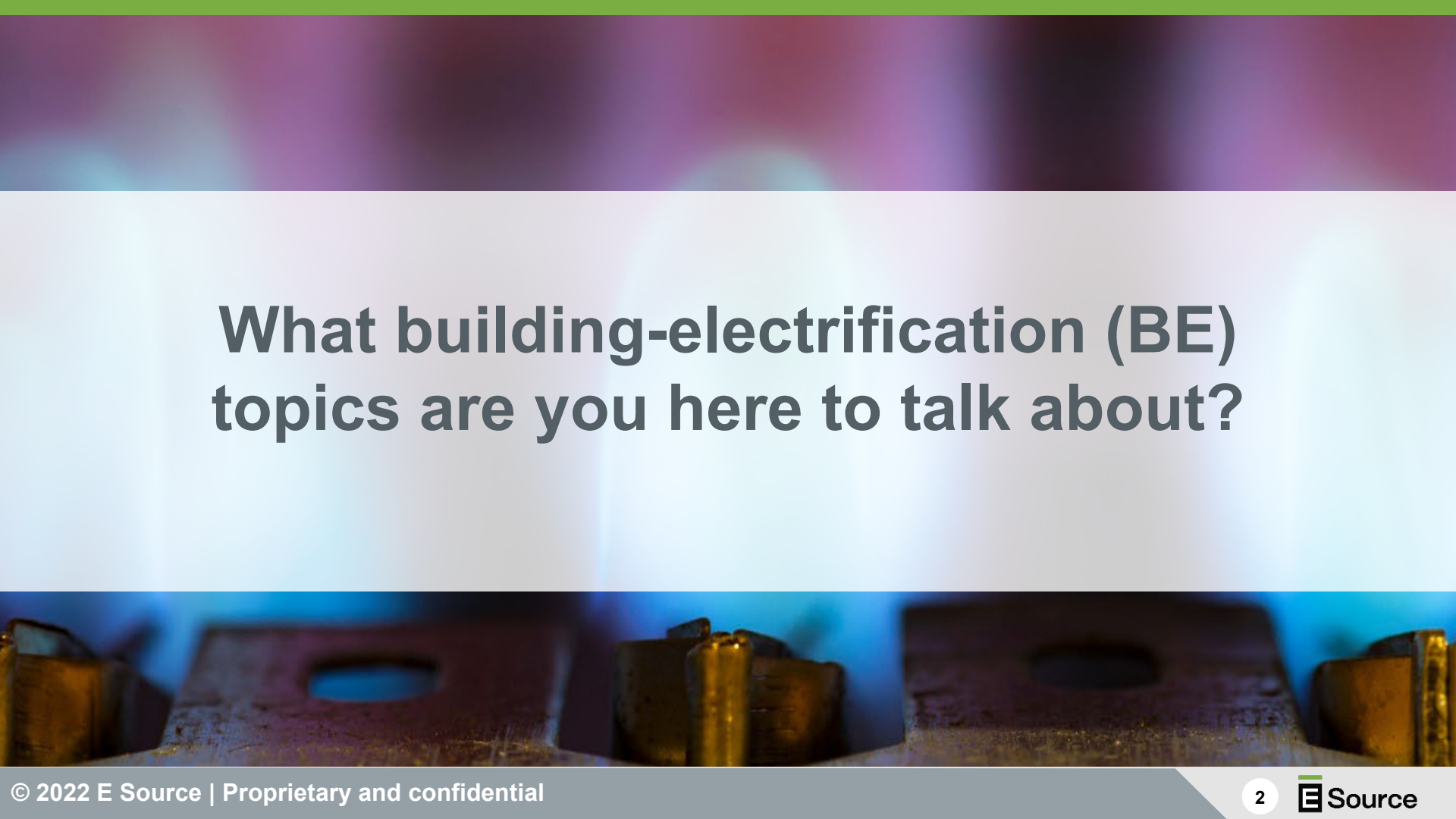
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POWERING WHAT'S **NEXT**

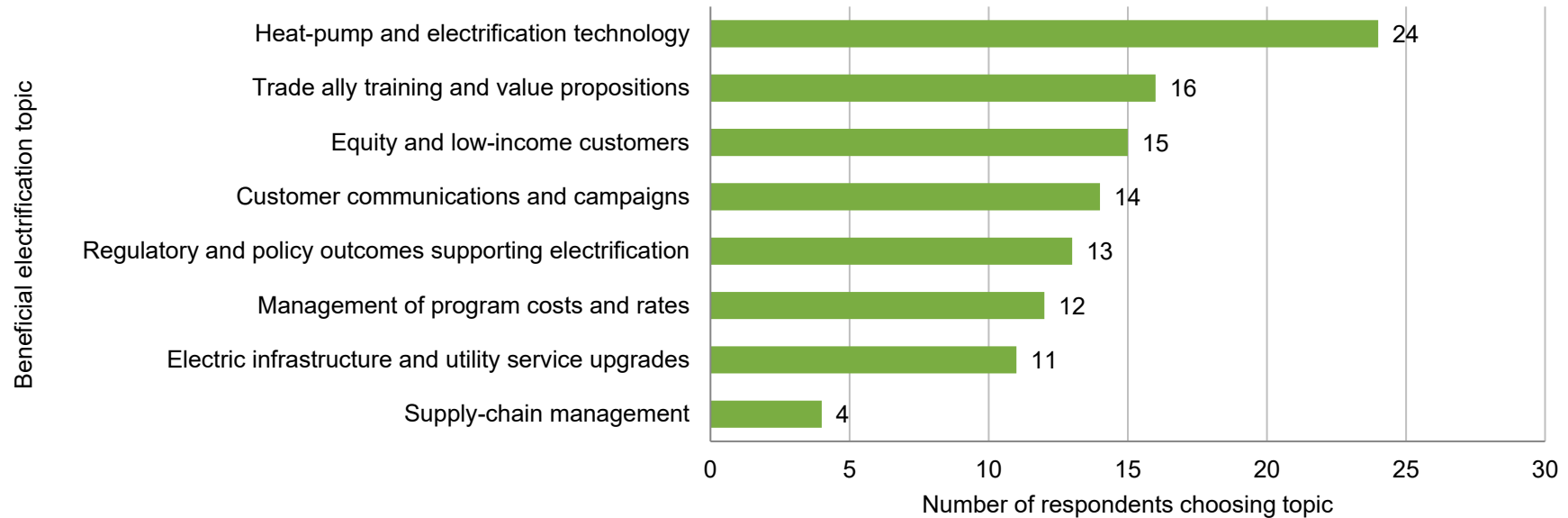


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A close-up photograph of electrical components, likely a terminal block or connector, with several metal pins and a circular hole visible. The lighting is dramatic, with a strong blue glow from the left and a purple glow from the right, creating a high-contrast, industrial aesthetic. The background is blurred, focusing attention on the metallic parts in the foreground.

**What building-electrification (BE)
topics are you here to talk about?**

Attendee poll: What BE topics are you here to talk about?

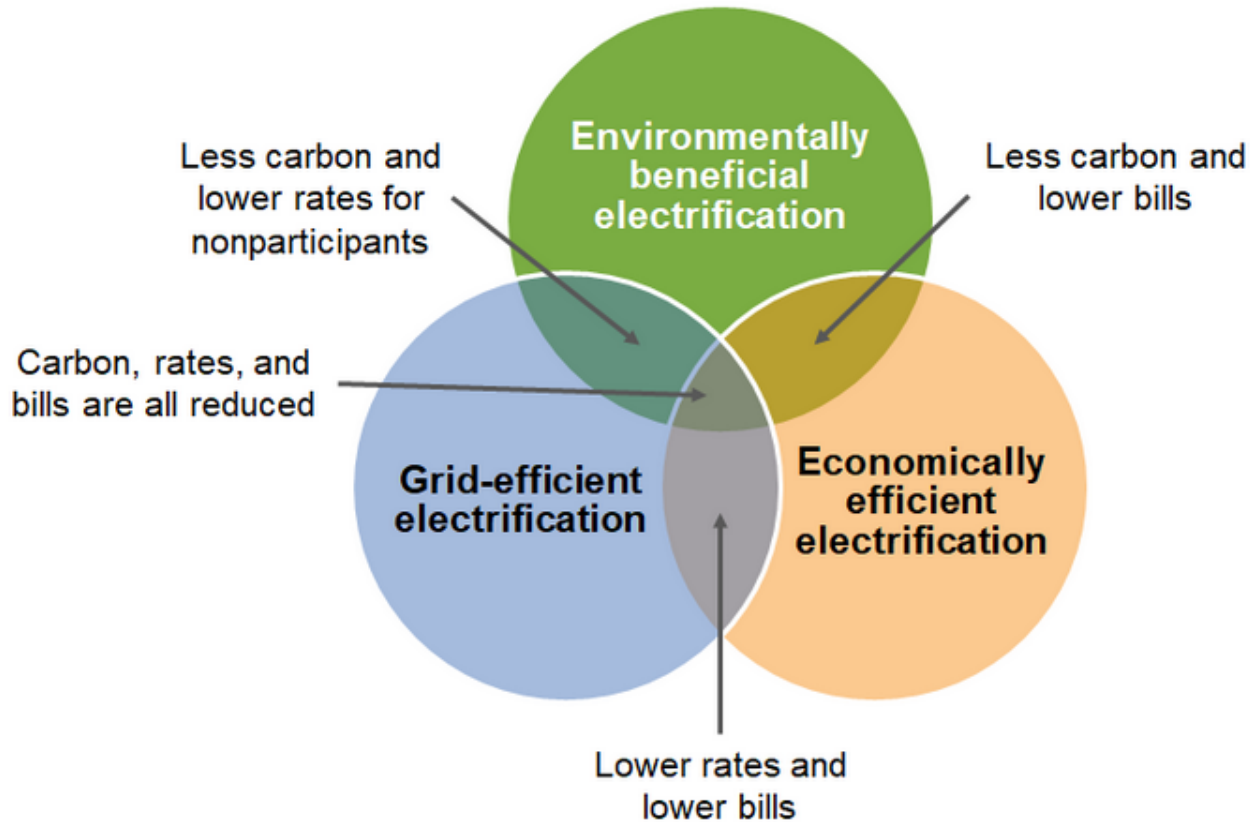


Base: Event attendees (n = 37). **Question:** What beneficial electrification topics are you here to talk about? **Note:** Multiple choices permitted. © E Source

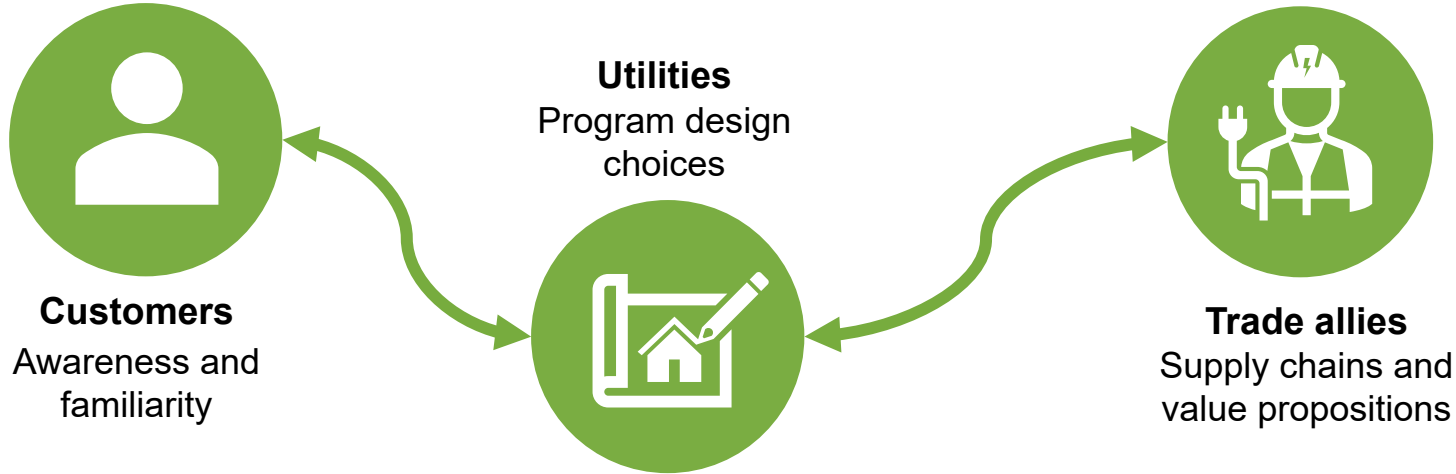


**In your role, how are you
supporting BE?**

E Source beneficial-electrification framework



What are we going to discuss today?



Supportive beneficial-electrification policy and regulation

Standards for measuring, evaluating, and reporting

Goal setting and performance

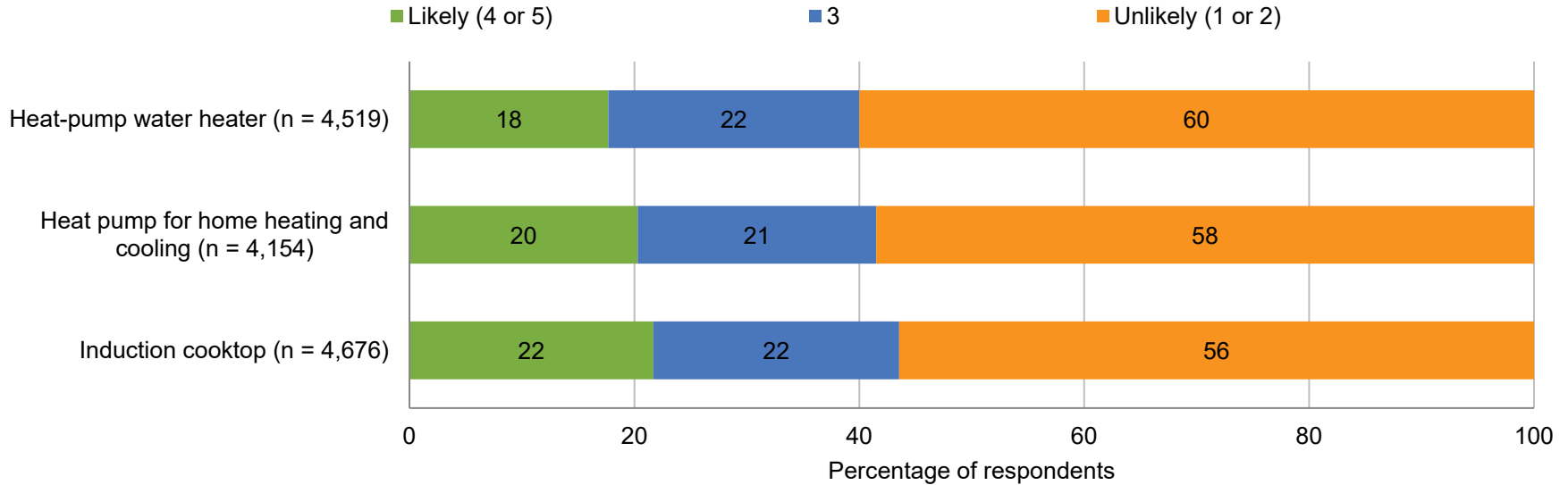
Affordability and equity

Customer awareness of and familiarity with BE technology



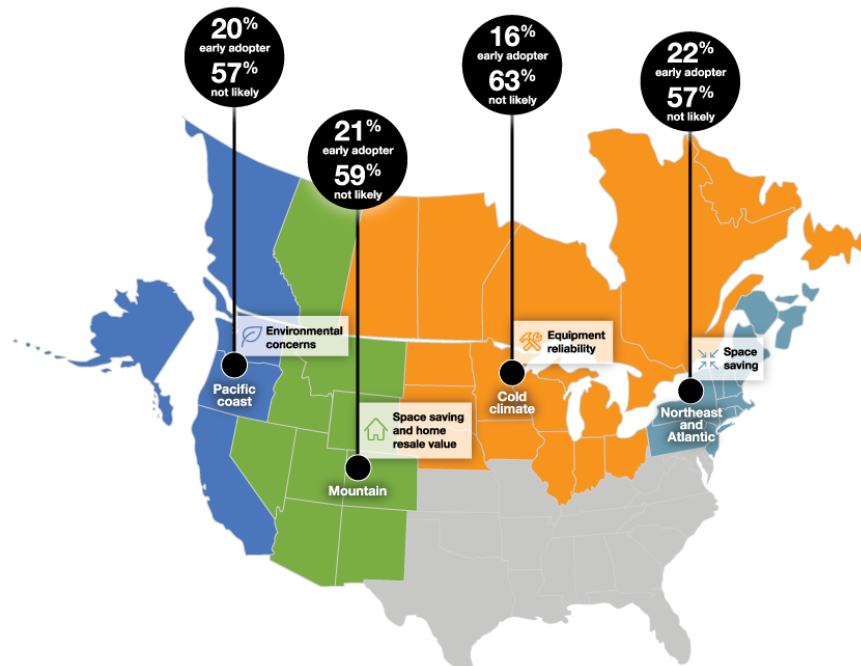
E Source 2021 Residential Electrification Survey

Among respondents without electric technology, over half say they're not likely to purchase it



Base: US and Canadian respondents who don't have each technology, n varies as shown. **Question S3:** On a scale of 1 to 5, where 1 means not at all likely and 5 means very likely, how likely are you to purchase each technology for your primary residence in the next three years? © E Source (2021 Residential Electrification Survey)

Where are early heat-pump adopters, and what are their motivations?



Early adopters are motivated by **safety**, **equipment reliability**, and **air quality**.

Top barriers for purchasing a heat pump are:

- Satisfaction with current heating equipment
- Concerned with cost of purchasing and maintaining a heat pump
- Hassle involved in switching to new technology

Base: Respondents who don't currently have a heat pump for home heating and cooling (n = 4,154). Question S3.5: On a scale of 1 to 5, how likely are you to purchase a heat pump for home heating and cooling in the next three years? S3.6: Which of the following might motivate you to consider purchasing an electric heat pump for home heating and cooling in your primary residence? © E Source (2021 Residential Electrification Survey)



How are you engaging with customers? What are you doing to address the lack of familiarity and awareness?

Building strong trade ally relationships and supporting their BE value proposition



Engage with distributors and contractors in your program design phase

Designate a single utility point of contact for trade allies

- Builds rapport between program and trade ally member
- Provides a clear line of communication to answer any program or product questions and provide program updates

Get feedback from distributors and contractors

- Allows distributors to work with manufacturers to prepare inventory
- Gives contractors time to attend BE product trainings

Go beyond traditional incentives to attract trade allies to your program

Contractors

- Special financing supports
- Product trainings and industry certifications
- Exclusivity to install certain program measures
- Web listings and marketing support

Distributors

- Help build contractor-distributor relationships to increase contractor loyalty
- Collaborate with trade allies when developing and using marketing materials
- Introduce sales bonuses to offset trade allies' administrative time
- Stock distributors' shelves with products that have higher profit margins



From E Source:
[Strategies for designing effective midstream incentives](#)

Train trade allies to sell, install, and collect granular data on electrification technologies

Train contractors to install and maintain

- Contractors with proper training have confidence to install and maintain more complex electrification products
- Properly sized and installed products result in better savings and customer comfort

Train distributors and contractors to sell

- Communicate the benefits of electrification including comfort, health, and safety
- Explain to customers how long-term benefits outweigh the higher upfront cost

Require and train distributors and contractors to collect relevant program data during the sales and installation process



How are you engaging with
trade allies? ... managing
supply chains? ... supporting
value propositions?

Successful BE program design strategies



Midstream program delivery

New York's [Clean Heat statewide heat-pump program](#) announced \$2 billion in new funding for heat-pump incentives.

High midstream incentives

Key features

1. Uses midstream delivery model
2. Builds strong contractor and distributor relationships
3. Offers top-up incentives for weatherization



Massachusetts's new [Mass Save Three-Year Energy Efficiency Plan 2022–2024](#) includes enhanced incentives for customers who install heat pumps with weatherization measures.

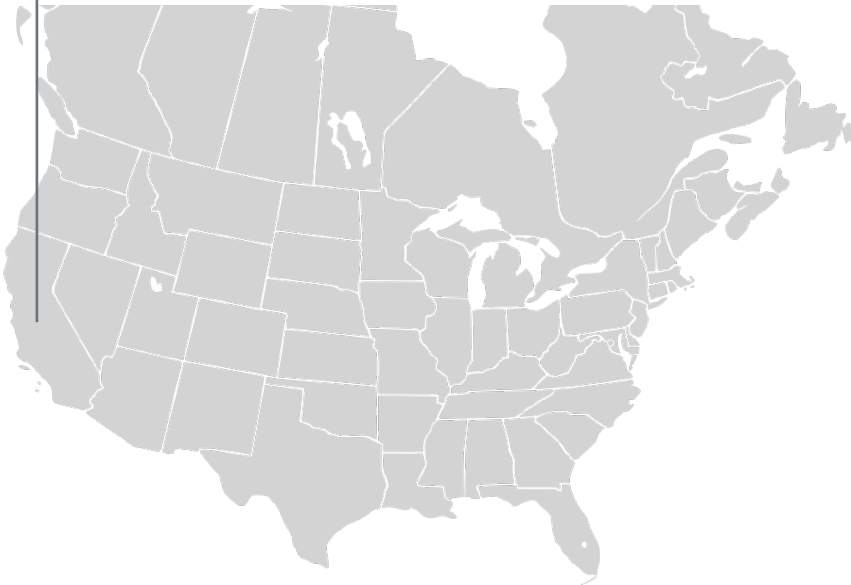
Top-ups for weatherization

Address consumer and contractor barriers

Market transformation



[TECH Clean California](#) addresses key market barriers with consumer campaigns and contractor workforce development.



Key features

1. Engages with, trains and educates contractors
2. Rolls out statewide consumer marketing campaign
3. Relaunches the [Switch is On](#) website, an all-in-one resource

Incentivize electric-ready infrastructure

Electric-ready infrastructure



SMUD's [Go Electric](#) program offers homeowners rebates for new electric panels and circuits they can use for electric appliances.



Key features

1. Removes barriers to installing new electric equipment
2. Creates an opportunity to engage with homeowners on future electric projects



What program design
components and delivery
strategies work for you?

Policy and regulations that support BE



Capturing the full benefit of electrification initiatives doesn't happen overnight

Find a way to propose and deliver electrification initiatives regardless of current regulatory conditions. This applies to buildings and transport.

Work with regulators to redesign cost-effectiveness tools that better reflect the value of electrification. Some possibilities are:

- Use Energy Efficiency Resource Standards resource-specific goals
- Switch to new reporting metrics (e.g., million Btu, CO₂e, total system benefits)
- Use greenhouse-gas adders for utility and participant cost-effectiveness tests
- Shift to societal or resource cost-effectiveness tests

Performance-based regulatory models

Performance-based regulation (PBR) can align societal goals, like those linked to beneficial electrification, with the utility's business goals. States exploring PBR include New York, Hawaii, Minnesota, Connecticut, and Illinois.

Performance incentive metrics (PIMs) and other PBR elements can support electrification technologies while limiting higher electric rates. Regulators frame PIMs in terms of outcomes like:

- Peak demand reduction
- Faster interconnection processes for distributed energy resources
- Optimal heat-pump controls and EV charging patterns
- Improved customer service and energy-equity outcomes



What are the ideal policy outcomes that could enable your BE plans? How are you measuring success?

E Source resources

Learn about our BE solutions

- [The electrification framework that benefits customers, the grid, and the planet](#)
- [Building-electrification programs: Funding, design, and energy savings](#)
- [Which customers are ready for heat pumps?](#)
- [Find new energy savings through market transformation](#)
- [4 steps to getting started with building electrification](#)

Upcoming research (stay tuned!)

- Engagement strategies for trade ally networks in midstream electrification programs
- Regulatory reform to advance beneficial electrification

E Source solutions that support BE

Learn and connect
Learn about the strategies and programs that work at leading utilities. Develop connections with your industry peers and with E Source experts.

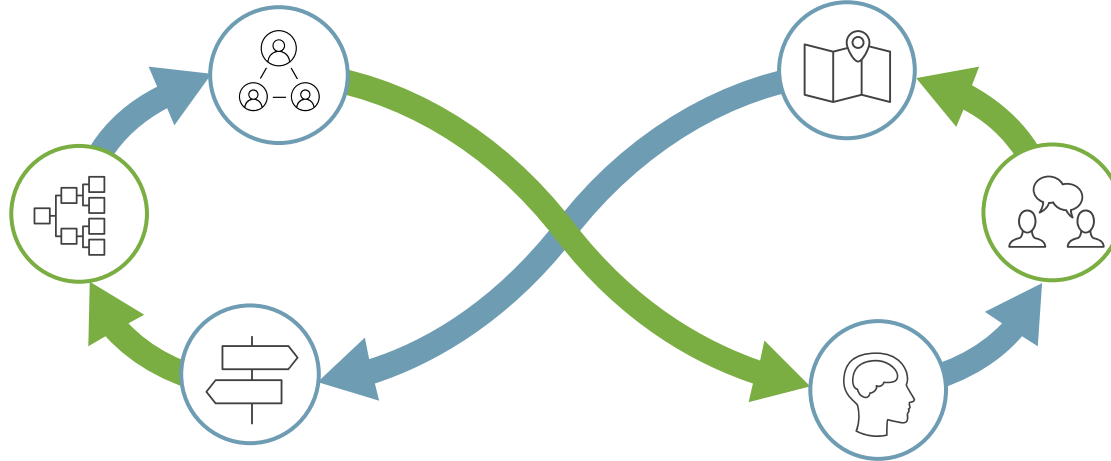
Design
How might we better serve these cohorts? Leverage design thinking to design programs and implementation strategies focused on customer needs for energy sustainability.

Continuous innovation
Feed detailed data back into artificial-intelligence models for continual learning and innovation as your understanding of the customer deepens.

Understand with VOC
Apply voice-of-the-customer (VOC) ethnographic research at the microcohort level to humanize the data and bring the customers to life.

Optimize
Go to market with a personalized approach. Use data science to make sure your plans succeed.

Understand with data
Create a digital replica of each customer, including their energy profile. E Source models cluster them into microcohorts with common characteristics.



Contact us



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