

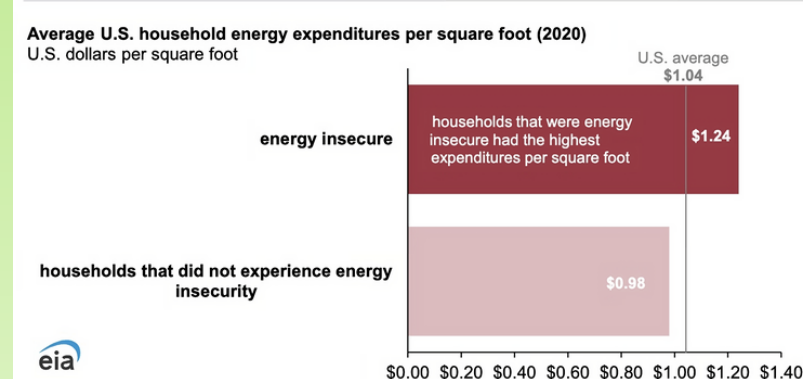
The challenge of expanding the utility model: How to reach a net-zero emissions society without leaving low-to-moderate income households behind

Team:

Jack Martin and Amanda Morris
in partnership with E Source

Utility bill affordability and equity are ongoing and pressing issues across North American ratepayers. Energy insecurity and energy burden are measures of low-moderate-income customers struggling to meet their electricity and gas bills in the face of other essential needs such as groceries. **Unfortunately, according to the U.S. Energy Information Agency's Residential Energy Consumption Survey (RECS), these households have been billed at a higher rate per square foot or energy usage across all energy sources than market-rate customers.** Our Capstone team sought to identify barriers and procedural solutions to this issue in the face of the industry's shift toward electrification.

U.S. energy insecure households were billed more for energy than other households



According to DOE's Low-Income Energy Affordability Data (LEAD) Tool, "the national average energy burden for low-income households is 8.6%, three times higher than for non-low-income households which is estimated at 3%. Of all U.S. households, 44%, or about 50 million, are defined as low-income."

Figure 1: U.S. Energy Information Administration, 2020 Residential Energy Consumption Survey (RECS)

Our team researched over 800+ affordability, equity, and EV programs this summer. We worked to ensure that E Source's databases are up to date on current program offerings and helped craft the argument for standardizing procedural improvements in rolling out programs.

Income-Qualified Programs: Delivering Energy Equity

Data from our research will be made available to E Source utility customers for use in planning, implementing, and executing energy equity initiatives. This study and analysis highlights pilots and programs that exemplify the existing E Source energy equity framework (as shown in Figure 1).



Figure 2: The E Source's energy equity framework

Research Results



Proof of eligibility

- *Complex Paperwork and Income Verification Strategies*



Time and money

- *Opportunity cost of time and money for LMI customers is often high*



Location based programs

- *Not comprehensive as some areas are left out of DAC eligibility*

What are the barriers to program uptake?



Program Transparency

- *Lack of outreach to customers for programs and Inaccessible language*



Lack of Trust

- *Customers lack full confidence in sharing information with governments, utilities, and 3rd party providers of programs*

Methods and Deliverables



Categorical eligibility can bring more income-qualified participants into utility programs

By Ben Nathan, Jack Martin, Amanda Morris

September 12, 2023

Figure 3: Report published to E Source clients

Methods

- Our team reviewed existing datasets of Affordability & Equity Programs and EV Programs administered by electric utilities, states and provinces, local governments, and nonprofit agencies
- The existing and new datasets are formatted in Excel, with the end result feeding into an internal search engine, making sifting through the information very user-friendly

Deliverables

- Updated existing databases with current program offerings
- Identified trends, barriers, and areas of growth
- Submitted two articles for publication for E Source's network of clients (the first article shown in Figure 2)

Outcomes

What do we think utilities should be doing?

Categorical eligibility** and expanding program eligibility thresholds

Expand arrearage management programs (debt-forgiveness)

Data sharing agreements with the state and other nonprofits

Allow for self-attestation and designate low-income special rates

Pro-active communication to result in better engagement with burdened communities; diversifying languages offered, and methods to reach customers

Categorical eligibility is a process in which a customer who qualifies for one program automatically gains eligibility for other assistance programs. Examples include federal and state medical, nutrition, energy, housing, age and disability, and income assistance programs.

**Categorical Eligibility:

Automatically approved



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