

# Energy in the Context of Low-Income Customers' Lives: Insights from E Design 2020 Ethnographic Research

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Web conference



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# Agenda

Project background and goals

Residential design imperatives

Low-income customers' budget and financial practices

Energy comprehension and actions

Trusted sources for energy assistance

# Project background and goals

- Continue the E Design journey
- Uncover underlying customer motivations in key residential areas by truly listening
- Develop a deeper understanding of our customers
- Create a greater sense of empathy
- Find ways to meaningfully engage with customers

# Topic areas for E Source E Design this year

## UNIVERSAL THEMES

Digging into consumers' relationships with companies in general, relationships with energy in general, and relationships with their energy utility.

## LOW INCOME

Understanding how low-income consumers manage expenses, feel about energy, and deal with the potential stressors of paying or budgeting for energy.

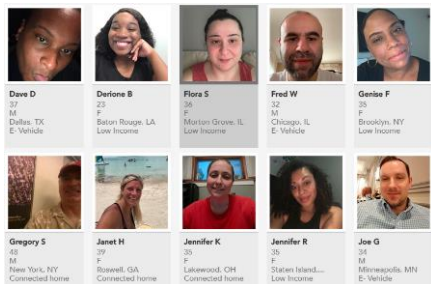
## CONNECTED HOME

Illuminating how smart devices, automation, and energy usage intersect, and determining where or how energy utilities could play a role.

## ELECTRIC VEHICLE

Learning about electric vehicle owners' experiences before and after buying their EV, and understanding how energy utilities can make ownership better.

# Primary qualitative research



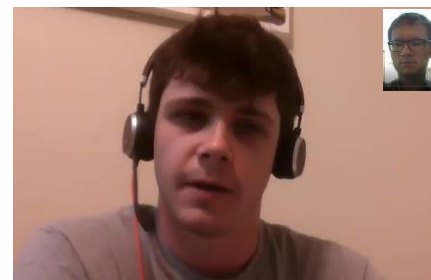
## MOBILE ETHNOGRAPHY

SAMPLE

- Invited 45 consumer participants (15 each for each low income, connected home, and electric vehicles)
- All screened to be knowledgeable and engaged in the topic area of choice

QUESTIONING

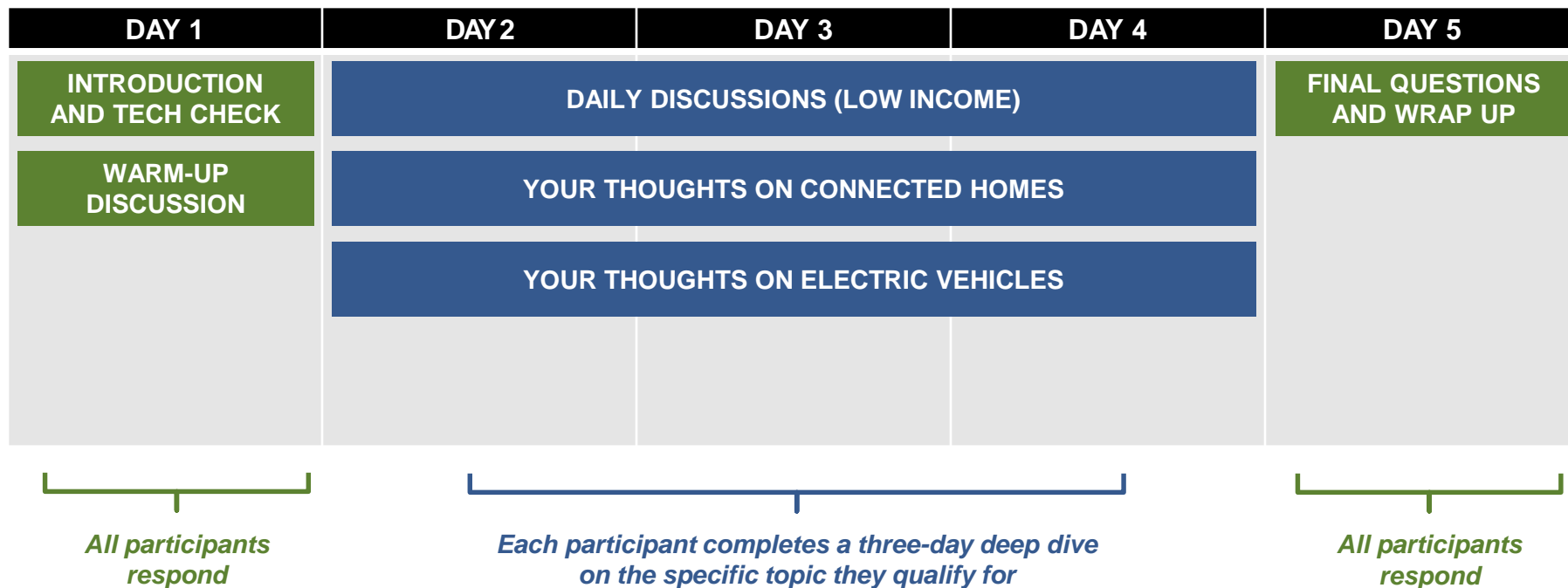
- Approximately 5 days of fielding
- Questioning topics included: relationship with brands/companies, energy and energy utility relationship, utility customer experience, low income, connected homes, and electric vehicles



## 1:1 VIDEO FOLLOW-UP INTERVIEWS

- Approximately 9 follow-up virtual in-depth interviews (via video platform) with our most-engaged consumers in each topic area
  - Conducted 3 in-depth interviews per segment for coverage across all areas of interest
- 
- Hour-long video in-depth interviews sessions conducted in August 2019
  - Goal was to probe deeper into each topic area by using the participants' mobile ethnography responses as a launching point, sharpening our understanding of each topic area

# Mobile ethnography

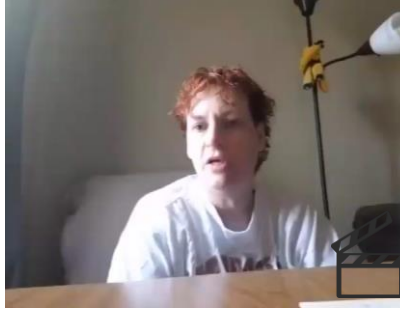


# The 2017 residential five design imperatives that help shape the future of new offerings and customer relationships are still very much supported by energy consumers in 2019

Engagement design



Reward design



Advisory design



Choice design



Localization design



**Based on this research, it's also important to factor in a sixth imperative called empathy design, especially when it comes to serving low-income consumers**

### **Empathy design**

Making company policies flexible enough to consider the special needs and considerations of individual customers (within reason).





SECTION

# Low Income

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## We observed a difference between how low-income consumers versus connected-home and electric-vehicle consumers perceive energy

	CONNECTED-HOME AND ELECTRIC-VEHICLE CONSUMERS	LOW-INCOME CONSUMERS
RELATIONSHIP with energy...	<b>PRIDE</b> Being smart with energy is a source of personal pride (through connected devices or eco-friendly driving)	<b>STRESS</b> Energy is a frequent source of financial stress and concern; it's always something that's spiraling out of their control
UNDERSTANDING of energy ...	<b>ABOVE AVERAGE</b> Enjoy staying up-to-date on topics related to energy, especially alternative sources of energy (e.g., solar, wind, hydro)	<b>BELOW AVERAGE</b> Too busy satisfying basic needs to learn about energy; limited understanding of how energy works or about types of energy
CONTROL of energy ...	<b>STRONG</b> Feel like they have a direct influence on their energy consumption and energy-related costs	<b>WEAK</b> Feel like their energy expenses are out of their control, and they can only do very little to influence their bills
INVESTMENT in energy ...	<b>PRIORITY</b> Willing and able to spend money on devices or vehicles that help them manage their energy consumption more efficiently	<b>ASPIRATION</b> Wish they could spend money to improve their energy efficiency and consumption, but can't prioritize the funds at this time

# We see this split in energy perceptions reflected in the voice of the consumer

	CONNECTED-HOME AND ELECTRIC-VEHICLE CONSUMERS	LOW-INCOME CONSUMERS
RELATIONSHIP with energy ...	 A video frame showing a woman with dark hair, wearing a white top, speaking. A clapperboard icon is visible in the bottom right corner of the video frame.	 A video frame showing a woman with glasses, wearing a dark top, speaking. A clapperboard icon is visible in the bottom right corner of the video frame.
UNDERSTANDING of energy ...		
INVESTMENT in energy ...		

## **Living on a low income has severe consequences both mentally and physically ... it's hard to think about anything other than money when you don't have it**

For many low-income consumers, much of their free time is devoted to figuring out how to make ends meet for themselves and their family.

- Budgeting expenses paycheck to paycheck
- Calling service providers to make payment arrangements
- Extreme couponing or buying things in bulk when they're on sale
- Exploring and managing assistance programs
- Researching free activities for themselves or their family

However, few talk about living on a low income as a permanent condition. There is a sense of optimism that they can rise, even when the current situation is extremely trying.



## Having a razor-thin budget means any deviation from the norm can throw life into chaos

We heard many stories from low-income consumers of how any type of surprise can derail their finances (and their lives) for months on end:



**Foundational expenses like energy, water, rent, and transportation are typically prioritized, while medicine, groceries, phone, and cable can sometimes be put on the back burner**

### **TOP-PRIORITY EXPENSES (Strive to pay no matter what)**

- **Rent/mortgage** = Like the energy bill, a fundamental way to keep family sheltered and safe
- **Energy/water bill** = Essential to keeping family safe and sheltered; need to pay at least minimum balance
- **Credit cards** = Urgency to pay at least the minimum balance in order to have debt not spiral out of control
- **Transportation** = A car or public transit is typically their primary means to go to work and to make income
- **Internet** = Key source of entertainment for self and family (especially when they can't afford other forms of entertainment)



### **MODERATE-PRIORITY EXPENSES (Pay if I can, but it's sometimes put on back burner)**

- **Phone** = Key source of communication and connection with family and outside world
- **Groceries** = Make do with whatever is leftover after prioritized expenses; often varies what they can afford
- **Medical** = Perception that they can delay certain medical expenses but will still be able to access essential services

### **LOW-PRIORITY EXPENSES (First to deprioritize when finances are tight)**

- **Cable** = Feels more expendable, especially with the amount of entertainment content available online
- **Subscriptions** = Netflix, Hulu, Amazon Prime, etc.; the first things to cut when finances get tighter

**While both are priority expenses, credit cards and energy bills are typically where most low-income consumers feel most out of control**



## CREDIT CARDS

- Cards have convoluted terms of agreement/consumers don't understand what they're getting into
- Interest payments can easily spiral out of control
- Consumers feel stuck in perpetual credit card debt, paying but not getting anywhere

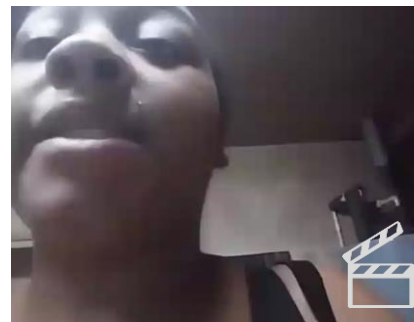


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## ENERGY BILL

- It's difficult to know what to expect; it seems to jump for no reason
- Consumers are paying minimum balances just to keep the lights on
- Extreme heat or cold disrupts the budget, consumers have to make real sacrifices to afford bill



*\*Note: Contains combined video and audio*

## The convoluted way energy is presented on their bill can be extra frustrating for low-income consumers

Most electric-vehicle and connected-home consumers have the luxury of not caring about the details of their energy bill (i.e., it's not breaking the bank either way). However, understanding the energy bill is truly important to low-income consumers who can barely afford to pay it in the first place.

There are **THREE** main ways in which low-income consumers are confused by their energy bills:

### TERMINOLOGY

Energy bills are littered with industry speak that means absolutely nothing to consumers (e.g., kilowatts, therms, peak hours)



### FEES

Low-income consumers are routinely confused and frustrated with the laundry list of perplexing fees they're stuck paying



### RATES

There's confusion around how energy rates are calculated and measured, especially when they feel they use less energy but still see higher bills





## Technology has made it easier for low-income consumers to budget and pay for expenses; however, energy utilities don't always cooperate

Some examples of using technology to make financial life easier:

- Using phone-based alerts to pay bills
- Keeping Excel spreadsheets of budget and expenses
- Using an app to better track and manage expenses
- Paying all bills online or setting up automatic payments



However, energy utilities are NOT doing the best job of making online payments easy:

- Charging fees to pay bill online
- Charging fees to pay bill through the mobile app
- Blocking online payments if bill is past due or not paid in full



## Many low-income consumers are trying hard to save money on their energy bills; however, they often see limited (or no) success from their efforts

They're making real sacrifices and behavior changes to lower their energy bill. However, most see little success (and some see even higher bills), which builds frustration.

Some sacrifices include:

- Banning electronics use for family members
- Only living in or using certain parts of the home
- Avoiding using washer, dryer, or dishwasher
- Setting thermostats to uncomfortable temperatures
- Unplugging everything when away from home

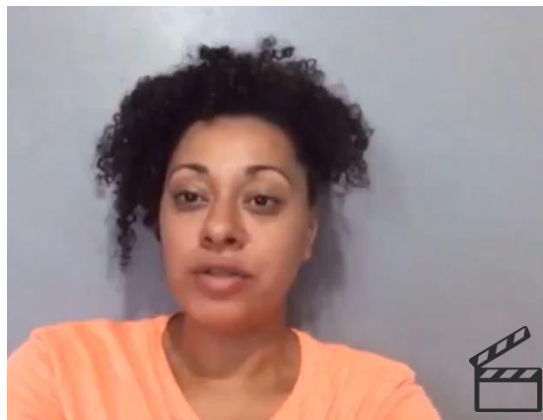


# This lack of success in reducing energy bills can mostly be attributed to three key challenges low-income consumers face

Many low-income consumers feel powerless and defeated when it comes to managing their energy expenses.

## OLD HOUSING

Many reside in housing that's old, drafty, and has outdated appliances. It takes them a lot of energy or money to barely move the needle on comfort.



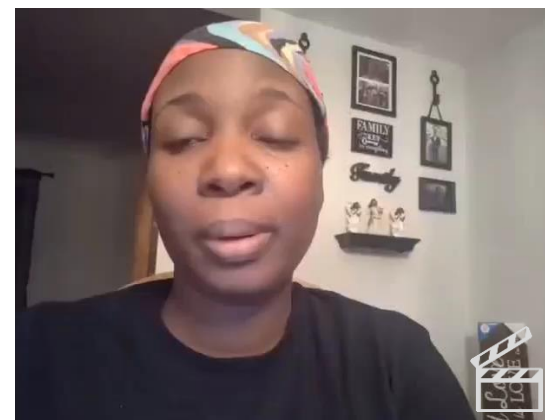
## LACK OF CONTROL

Many consumers (especially those who rent) don't have any control over their own HVAC preferences or, sometimes, even how they're charged for the energy in the building.



## NO BUDGET

While all agree it would be nice to make energy-efficiency improvements to their home, the budget just isn't there, especially when they barely have enough money for rent, food, etc.



## In addition, those that rent (the majority) also must fight an uphill battle with absentee landlords who couldn't care less about renters' energy needs or concerns

What we hear from renters:

- They're a corporation; they don't care about my comfort
- I've been trying to get management to fix something for months
- They do the bare minimum to not have complaints, but they won't actually fix anything
- Landlord tries to pass off extra expenses on the tenants when something goes wrong



*\*Note: Contains combined video and audio*

## Perceived leaders in low-income communities are typically elders, nonprofits, and faith-based organizations

It's typically NOT politicians and lawmakers, who are often treated with a strong degree of mistrust and skepticism.



**Because of this, nonprofits and faith organizations are some of the common and trusted on-ramps to financial-assistance programs of all kinds**

## ON-RAMPS TO ASSISTANCE PROGRAMS

The most common on-ramps are:

- **Word of mouth** (i.e., friends, family, neighbors)
- **Nonprofits** (i.e., Urban League, Community Action, 211)
- **Faith organizations** (i.e., local church, community group)



## ASSISTANCE PROGRAMS ENROLLED IN

The majority of low-income consumers are enrolled in some type of assistance program:

- SNAP
- Food stamps
- LIHEAP
- Medicaid
- TANF
- WIC
- PIPP
- FoodShare

## While these programs are desperately needed, they're not without their faults; many feel inflexible, cumbersome, and demeaning

Energy assistance programs could perhaps learn from these common pitfalls to design better systems that work for all low-income consumers.

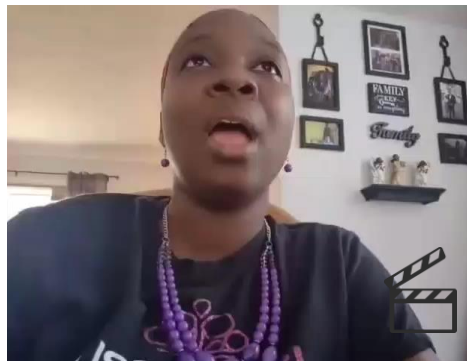
### INFLEXIBLE

- Restrictions on type of use or frequency of use
- No exceptions or variations for special circumstances or needs



### CUMBERSOME

- Rigorous renewal process every year; must gather and document income or risk getting kicked off
- Rules and regulations are always changing and tough to navigate



### DEMEANING

- Employees can look down on you
- Shame of using assistance programs in public (e.g., food stamps)
- Personal data required to sign up feels like invasion of privacy



## Similarly, when it comes to energy-specific assistance programs, low-income consumers find out about them through nonprofits or faith organizations

Almost **NONE** of the low-income consumers found out about their energy-assistance programs through their energy utility, and those who are unaware of energy-assistance programs did not mention their energy utility as someplace they'd start looking for information.



This ties back to the **general mistrust** many low-income consumers feel towards their energy utilities; they often don't view them as someone "in their corner" or someone they would explicitly trust for energy information.





# There are key opportunity areas for electric and gas utilities



## LOW INCOME

### Key opportunity areas:

1. Ensure company policies and practices are **empathetic and understanding** when it comes to individual situations (e.g., waive payment fees for low-income consumers, offer flexible payment plans that cater to how a customer's income varies)
2. Increase the **simplicity and transparency** of the energy bill, so that even novice energy consumers can easily understand and use it (e.g., simplify terminology, clarify fees and rates)
3. Help low-income consumers with general **financial budgeting**, beyond just energy costs (e.g., offer access to budgeting tools and applications that help them better plan and allocate their resources)
4. Provide a greater **level of control** over energy usage and expenses for low-income consumers, who often feel like they have none (e.g., help them understand where to prioritize energy efforts, expanded programs for home energy improvements)
5. Build greater **perceptions of trust** among low-income customers, who currently are skeptical of their relationship with the energy utility (e.g., sponsor or hold community events, become an advocate for low-income consumers)

# Implications and questions

- Low-income is a very broad brush. We must use appropriate segmentation for this large group of customers to reach them effectively.
- If people are even aware energy-assistance programs exist, they often don't think they qualify and/or might not want to ask for help.
- Low-income customers don't think of going to their utilities to find out about energy-assistance programs. What alternatives might we explore to reach them with assistance? Why does this group distrust utilities so much?
- People regularly feel like they use less electricity/gas on a monthly basis, yet their bills are either more than the prior month or more than expected. Why is this consistently the case?
- Almost nobody understands their bills. We all know this yet don't make changes. Why not now?



## **December 10–12, 2019, in Boulder, CO**

- Empathizing with customers to develop a deeper understanding of their needs
- Creating new customer-centric solutions to address acute customer needs
- Breaking down internal utility cultural barriers to successful customer-centric practices
- E Design members get three seats
- See the agenda and register at the event website:  
[www.esource.com/edesign-week-2019](http://www.esource.com/edesign-week-2019)

# Customer-centric E Source resources

- [Ethnographic Insights on Low-Income, Connected Homes and Electric Vehicles: E Design 2020 Residential Ethnographic Market Research](#)
  - Brand-new ethnographic research
- SMBs Engage with Other Vendors. What Can Utilities Learn?
  - Web conference on January 8<sup>th</sup>, 2020, focusing on SMB ethnographic research
- Smart Homes: Customer Drivers and Expectations
  - Web conference on January 29<sup>th</sup>, 2020, focusing on residential ethnographic research
- [Developing Successful Relationships with Small and Midsized Business Customers: E Design Ethnographic Insights](#)
- [E Design 2020 Residential Ethnographic Market Research: Summary Report](#)

# Thanks!



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