Understanding low- and moderate-income customers' needs through data science and ethnography

By Sara Patnaude
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Low- and moderate-income (LMI) customers have their own unique challenges that make a homogenous approach to serving them meaningless. Historically, utilities might have tackled these challenges with a tried-and-true approach: throw money at them. But that won't work this time. To best serve LMI customers, we need to understand them at a granular level. We need to treat them as an Audience of One and develop holistic, equitable solutions that will address the root causes of LMI challenges, not sweep them under a rug while we hope for success.

Ready to use our Audience of One solution to get to know your customers better?

Fill out this short form to start a conversation about your needs and how we can help.

To better understand how utilities should be engaging with LMI customers, I sat down with Adam Maxwell, managing director of E Source Solution Services. We discussed some of the ways utilities can better serve LMI customers on their journey to becoming The Sustainable Utility—one that's environmentally responsible, safe and reliable, equitable, and financially stable—with the help of data science and ethnographic research.

Sara Patnaude. It's safe to say that "one size fits all" isn't equitable for LMI customers. Why is it so important for utilities to understand LMI customers at such a granular level?

Adam Maxwell. Let's face it, energy equity has always been an issue, but COVID-19 really brought this to the surface, and lower-income individuals were hit hard. Utilities did a great job reacting quickly during the pandemic to help out in a time of major need. But there are plenty of LMI customers who

still struggle to keep up with their energy bills, and utilities are in a prime position to rethink and redesign their LMI offerings to meet the actual needs of LMI customers instead of the business needs of the utility.

This starts with identifying LMI customers in meaningful ways. Utilities have historically done this by strictly looking at income. For example, people under 150% of the federal poverty level are eligible to participate. The challenge is that this strategy leads to a broad-brush categorization when, in reality, income is likely only one factor. Plus, this strategy misses those people who may be slightly over that threshold yet still struggle.

With the advances in data science capabilities, combined with ethnographic research and design thinking, we can better understand who these LMI customers are based on a broader set of characteristics such as billing and payment behaviors. This approach can help us more clearly define our target audience for new and meaningful solutions.

Watching the swift way utilities reacted to the pandemic with bill payment forgiveness programs and delaying shutoffs inspired us to find more ways to improve how we serve LMI customers. The strategic use of data and customer insights is now required for every utility to tackle this daunting challenge. Our Audience of One methodology helps utilities achieve this by using customer data to serve customers as individuals.

You can read our blog post The Sustainable Utility: Data takes center stage to find out how to begin a data-driven transformation.

SP. Let's talk about that data. How can utilities use data to better serve LMI customers?

Utilities are in a prime position to rethink and redesign their LMI offerings to meet the actual needs of LMI customers instead of the business needs of the utility.

AM. We use behavioral data to create cohorts that help utilities really understand their customers. For example, we can use data on customers' arrears behaviors to better understand how customers struggle to keep up with their energy bills. Then we develop cohorts of customers based on the degree to which they struggle.

Once we cluster customers into cohorts based on their struggles with energy bills, we perform ethnographic market research to hear directly from individuals in these cohorts and learn how their situations affect their ability to pay energy bills. Ethnographic research is critical in this process because it brings in the human element to contextualize what we see in the data. It helps us avoid making assumptions or treating all customers the same. It helps us discover the real reasons customers struggle to pay their bill—for example, maybe they're caring for an ill family member or dealing with unexpected costs related to an emergency or accident—and creates a robust picture of who the customers *really* are. From there, we guide the utility through the design-thinking approach to develop customer-centric solutions based on the needs we've uncovered.

I recently talked with our CEO, Ted Schultz, for E Source podcast Episode 3: Humans versus machines about the benefits of ethnographic research and data science.

SP. We've hosted dozens of design thinking workshops over the years. The one we're hosting for these LMI projects is in partnership with the Edison Electric Institute (EEI). What can a utility expect from

participating?

AM. First off, we value our partnership with EEI so much and are grateful to have such excellent partners on this initiative. The strategic work and support EEI provides for utilities are tremendous and, together, we're able to help utilities in ways we historically never could. Both EEI and E Source are dedicated to helping every utility address the pressing, interconnected issues on their path to becoming The Sustainable Utility.

During our design-thinking LMI workshops, we help utilities develop customer-centric, early-stage solution concepts. This approach puts customers' needs at the core of the solution development process, relentlessly keeping customers—real human beings—at the forefront to ensure we're developing solutions that have a high likelihood of resonating with our target audience. This inverts the historical utility product development process, which is typically focused on developing solutions that meet utility needs, and then incentivizing customers to participate to help meet those utility needs.

Start understanding this group of customers at a more granular level, and, equally important, don't define them by their income!

You can read our blog post How to use ethnography to build energy equity to learn more about what it takes to be truly customer-focused in creating experiences, products, and services.

SP. What are some things utilities can start doing today to better serve LMI customers?

AM. There are so many things we can do to better serve LMI customers—it's daunting! It can be overwhelming to know where to start, but here are a few suggestions to get moving in the right direction:

- Start understanding this group of customers at a more granular level, and, equally important, don't define them by their income!
- Talk to your LMI customers on a regular basis. Perform ethnographic research whenever possible or spend time with community partners out in the world and have those crucial personal conversations.
- Don't assume that existing offerings will fix their challenges. Have the tough conversations internally about whether a program is effective. If not, *why* not? How can it be redesigned, or does it need to be scrapped?
- Develop solutions *with* your LMI customers. We're generally too far removed from their challenges to know whether our ideas are good ones. Designing solutions in partnership with LMI individuals or proactively getting their input during the design process will lead to far more successful offerings.

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