Unpacking the Utility's Value in a Time of Climate Shocks

Extreme weather events like sub-freezing temperatures, wildfires, extreme heat, hurricanes, and flooding nearly always result in the same outcome: power failures.

When this happens, utilities can activate incident command protocols and procedures to quickly restore power.

But what about those mechanisms to restore customer confidence? How do utilities stand up and restore value in a time of persistent climate shocks?

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Customer Confidence Is Fragile

Customers are all too familiar with the stress of climate shocks. Extreme weather events have resulted in billions in economic and property losses, adding pressure on the 21st century utility already overwhelmed with keeping prices down and earning back customer goodwill. Customer satisfaction depends on consistent, reliable, quality service.

Because customers cannot unsubscribe from their utility, the easiest outlet to express frustration is via price dissatisfaction. Social media is amplifying this dissatisfaction as customers express cynicism through memes that call out utilities that demonstrate poor corporate citizenship.

The same social media environment that gives customers a means to communicate with their utility is also exacerbating distrust of 'big utility'. Absent proactive communication from utilities on how they will address reliability in a changing climate, customers will judge the value of their utility through the lens of power outages and the social media feeds of similarly disaffected customers.

As climate change leads to more frequent and more destructive events, utilities will need to develop strategies to ***address reliability, communicate clearly and with transparency, and invest in climate resilient infrastructure.***

Address Reliability & Align Communications

Price satisfaction is directly related to reliability. Simply put, customers are not satisfied with the cost of their service when basic reliability concerns persist. For example, recent events like Hurricane Ida in New Orleans or the freeze and ensuing heatwave that engulfed Texas this summer drove customers to social media to express dissatisfaction, cynicism, and distrust of the utility.

To earn back trust, utilities must:

Invest in the core issues related to reliability, such as making important enhancements to the grid. This includes investments in grid monitoring, line upgrades, tree trimming, and strengthening and upgrading critical infrastructure, i.e., hospitals and backup power.

Match communications with action. According to our research, customers expressed a sense of betrayal when communications about reliability did not reflect their lived experiences, especially during/after a storm. Utility preparations, such as the appropriate number of trucks and line workers necessary to restore services, will need to reflect the increased incidence and impacts of extreme weather events.

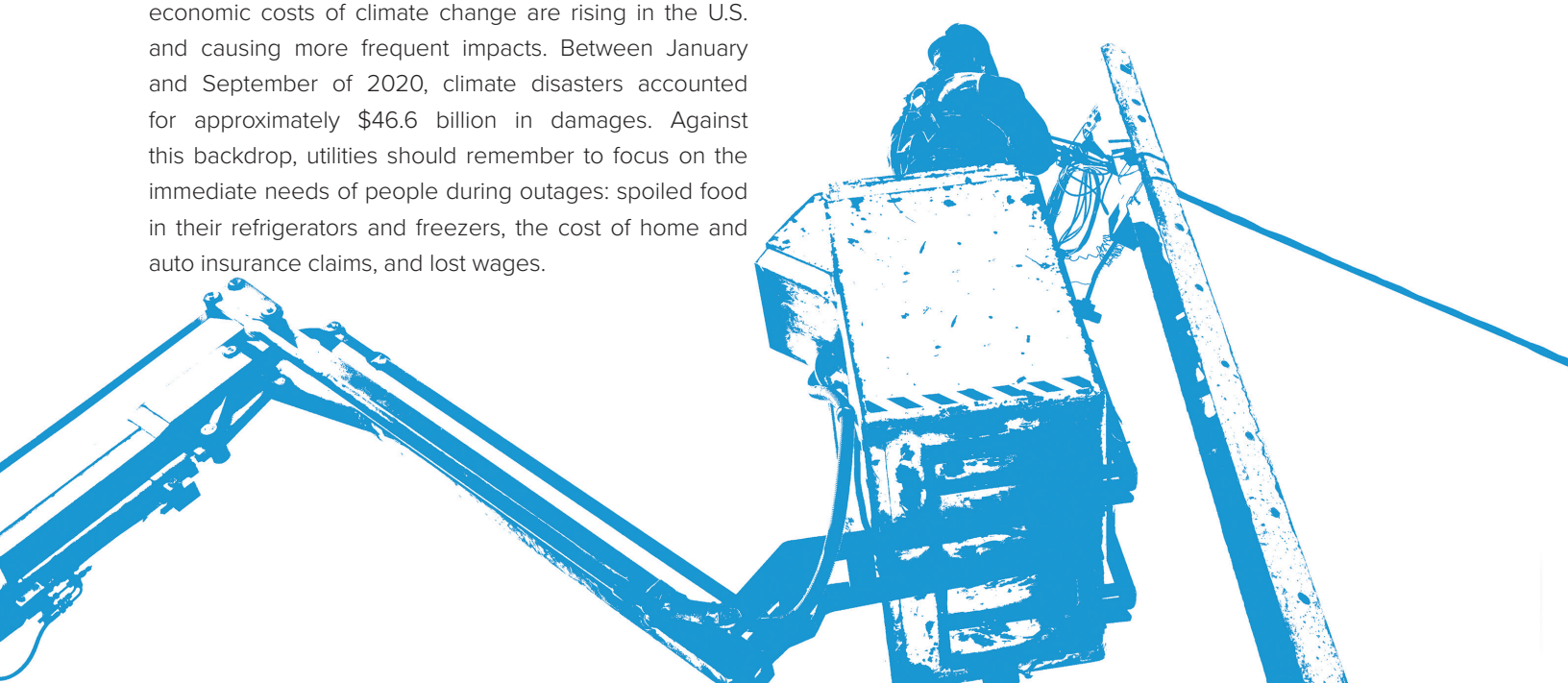
Invest in Climate Resilient Infrastructure

Our research found that most of the emotional events utility customers remember are tied to outages related to natural disasters and storms. These stressful events are often associated with their utility, even if the utility is not at fault.

Below we share two considerations for utilities looking to re-frame customer schemas:

Address climate change and its effects: The social and economic costs of climate change are rising in the U.S. and causing more frequent impacts. Between January and September of 2020, climate disasters accounted for approximately $46.6 billion in damages. Against this backdrop, utilities should remember to focus on the immediate needs of people during outages: spoiled food in their refrigerators and freezers, the cost of home and auto insurance claims, and lost wages.

Focus on resilience investments: Whenever there is a storm and a resulting outage, American utilities will battle the perception that outages are due to a company-wide characteristic versus a single incidence of failure. To combat this perception, utilities must invest (and communicate their investments) in microgrids, home battery storage systems, and other resilience infrastructure to signal to customers that the utility will protect its customers from the threats of climate change.



Communicate Clearly and with Transparency

In addition to addressing reliability, utilities need to explain to customers how they are proactively addressing the challenges that are intertwined with reliability, such as aging infrastructure, communications challenges, and climate change. In our review of utility customer satisfaction scores, ILLUME found that utilities that score higher make information (about pricing, for example) easily accessible on their websites, through simple visualizations that explain complicated concepts, and by employing easy-to-understand language.

Below are suggestions for utilities to improve customer communications:

- **Use bill inserts to communicate specific information** about how your utility is strengthening and upgrading grid infrastructure around local hospitals and other critical locations.
- **Make publicly available information easy to access** and understand. One way to combat distrust of the utility is by summarizing or clarifying information that can often be buried within filings and legalese.
- **Incorporate openness and transparency in customer communications.** For example, communicate where the utility has fallen short, particularly when it comes to the communication issues evident from recent events, and how the utility is remedying these issues.
- **Address changes to the communication system,** and within customer-facing communications, to demonstrate that your utility is working to improve processes. Also, be sure to avoid miscommunication cues which can compound dissatisfaction.

Our Approach

In synthesizing this holistic view of utility communications and customer perceptions of price, value, and cost, ILLUME employes several methodologies. These range from in-person and virtual customer interviews, to fieldwork, to cognitive psychology.

Review of marketing communications.

We analyze customer communications, ranging from topics like tree cutting, bills, emergency preparedness, energy efficiency, transmission, distribution improvements, and more. We categorized these communications by type and by topic and examined these communications to understand the utility's external voice, tone, and style across different formats, channels, and departments.

Ethnographic fieldwork.

To compare a utility's voice with its customers, we spent time in our utility client's territory conducting ethnographic fieldwork, including in-home, in-depth interviews with customers and intercept interviews at three different shopping malls.

Comparative reviews of utility price communications.

To understand how various utilities communicate with customers about pricing, we conduct a comparative analysis across utilities using information available on their websites and, where available, bill inserts and other mailed collateral. The comparison focused on several topics related to pricing, including rates, utility bills, and bill payments.

Cognitive interviews with utility customers.

We conduct in-depth cognitive interviews with utility customers to understand how customers read, interpret, and respond to customer satisfaction survey questions specifically related to pricing. For example, total monthly cost of electric service, fairness of pricing, etc.

Linguistic reviews.

ILLUME conduct linguistic reviews of interviews and focus groups transcripts to assess whether utility customers use language in a unique way and, if so, how the utility could use this language style to better connect to the community.

The Pacific Northwest

Flooding, Heatwaves

Storm surges along the coast of the Pacific Northwest will increase with climate change. Extreme precipitation events can cause landslides, sinkholes, and flooding, creating slope instability along transportation routes. Rural communities in this region may grow increasingly isolated and vulnerable as roadways and railways are blocked.[1] Heatwaves are compounding transportation challenges. In 2021, public transportation systems like Portland's TriMet commuter rail experienced disruptions due to record-breaking heat waves.[2]

The Northern Rocky Mountains

Wildfires

Spring wildfires in the Pacific Northern Rocky Mountain forests have been driven by earlier spring snowmelt and warm summer temperatures. Warmer spring temperatures brought about by climate change are causing snowpack to melt at faster rates. This fast snow melt, paired with a moisture deficit in the summer, will lead to dry forests that can be extremely sensitive to wildfires.[3]

The State of California

Wildfires

An increase in dry brush, forests, and grasslands has been linked to warming temperatures in the region. Aridity fuels like these allow for fast spreading fires that are difficult to maintain, resulting in mass damage in short periods of time.

The Southwest/ Colorado River Basin

Drought

By the end of the 21st century, the Colorado River Basin is predicted to flow one third below the previous century's average.[4] Lake Powell, located on the Colorado River, which serves as a reservoir for seven states and 40 million people, is projected to cease hydropower production as early as 2023. The result? Water shutoffs and potential interstate water rights disputes.[5,6]

Shocks to the System

Climate change is placing a greater emphasis on reliability, infrastructure investments, and customer communications. Utilities must prepare for, manage, and address critical services as extreme weather events become more frequent and longer lasting.

The Northeast

Flooding

Storm surge height is predicted to grow in the 21st century, putting Northeast coastal communities at risk of extreme flooding events (up to two to four feet of sea level rise) through year-round precipitation from Atlantic hurricanes and Nor'easter storms.[9] The proximity and population density of Northeast cities like Atlantic City, Boston, and New York City makes them vulnerable to infrastructure, environmental, and socioeconomic impacts.[10]

The Northern and Southern Great Plains

Drought

Rising temperatures in this region have resulted in increased drought (and drought intensity). Water shortages in the Great Plains region will shock agricultural production, directly impacting food security in the United States. Wheat, corn, potatoes, canola, and soybeans are farmed in this area. This means rising temperatures and increased drought could result in continuous economic blows to American farmers as crop yields decline.[7,8]

The Southeast

Flooding

As the climate warms, the number of tropical storms to hit the Southeast is predicted to increase.[11] Coastal and low-lying regions are vulnerable to flooding impacts caused by sea level rise, resulting in damage to infrastructure, water systems, communities, and ecosystems. Billions of dollars of flood damage have accumulated in this region as flooding has intensified.[12]

The State of Texas

Extreme cold

Scientists are looking at how a warming climate affects the polar front and the stability of the polar vortex's winds as they expand into North America. Newly recorded cases of unstable winds from the polar vortex dipping further into North America have caused extreme weather events like the deadly Texas freeze of 2021. Regions with relatively warm winters are suddenly thrown off keel as unstable polar vortex patterns result in tragic loss of life and billions of dollars in damages.

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