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ILLUME

VOLUME THREE

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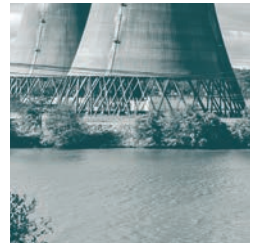
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The year 2020 was like no other.

When we selected the theme of “Citizenship” last February, we had our eye on the election. We had no idea that we would be asked to take collective action—in support of each other—in so many unprecedented ways. In this magazine, we explore energy citizenship and what it will take, from all of us, to move toward an equitable and clean energy future.

While we are all eagerly anticipating an easier 2021, we felt it was important to reflect on what we have learned to help us move forward in the New Year. In “A Timeline of Three Crises,” we map the thoughts of our webinar panelists against the timeline of COVID-19, the movement for racial justice, and the unrivaled fires and natural disasters of the year. We also explore how such crises have historically moved us forward in “Disaster As Catalyst,” which offers a sobering, but also hopeful, retelling of how disasters have prompted real, lasting environmental action.

When we think of energy citizenship, we also think of what it truly takes to democratize technologies, which we explore in three pieces: “Change is Hard,” “Who Are You With? What’s The Catch?,” and “All Hands Design: Participation and Democracy as Innovation.” Each offer a unique view on how to bring more people into our energy services and programs.

While serving more people is an important, if not critical, goal, a first step in this work is to better identify and engage those who have been historically left on the sidelines. In “Reorienting Toward Equity,” we examine the ways in which our definitions of DACs impact our outcomes.

We then offer three articles that focus on improving outreach and communications to gain greater traction with underserved community members: “From Community Engagement to Ownership,” “Setting the Table for Change,” and “Is Biased Language Undercutting Your Diversity and Equity Efforts?”

And most importantly, to be an effective contributor to change, we have to be self-reflective. In three pieces, we explore how to be better corporate citizens. In “Hunker Down—A Tweetstorm Is Coming,” we look at the intersection of corporate responsibility, social media activism, and customer engagement. In “Corporate Social Responsibility 2.0: How Conscious Capitalism Can Deliver Value,” we discuss ways to rethink business as usual for prosocial goals. And finally, we explore how to better serve our employees and our industry through diversity, equity, and inclusion (DEI) in an interview with Sherard Robbins, CEO of Visceral Change.

We hope that you find value in these pages and see this piece as a heartfelt “thank you!” to the people and organizations that have supported us at ILLUME. As we enter a new decade, we look back at the challenges we have faced as an industry, as a society, and as citizens and recognize the many ways we have been inextricably changed. While some of this change has been hard, and left us with much work to be done, this moment also reminds us of the many ways we have been fortunate. We are grateful to be working towards a better, cleaner, more equitable future with our clean energy community.



The background features several sets of concentric circles in bright pink and light blue. One large pink circle is in the top left, a smaller pink one in the top right, a medium pink one in the bottom left, and a large pink one in the bottom right. A partial blue circle is visible on the far right edge.

COVID-19 is Making Us Sick



ENERGY

EFFICIENCY IS PART

OF THE CURE



PUBLIC HEALTH IS AT THE CENTER OF OUR NATIONAL ATTENTION

Questions about how to protect our families, neighbors, and employees consume our thoughts as parents, caretakers, business owners, and policymakers.

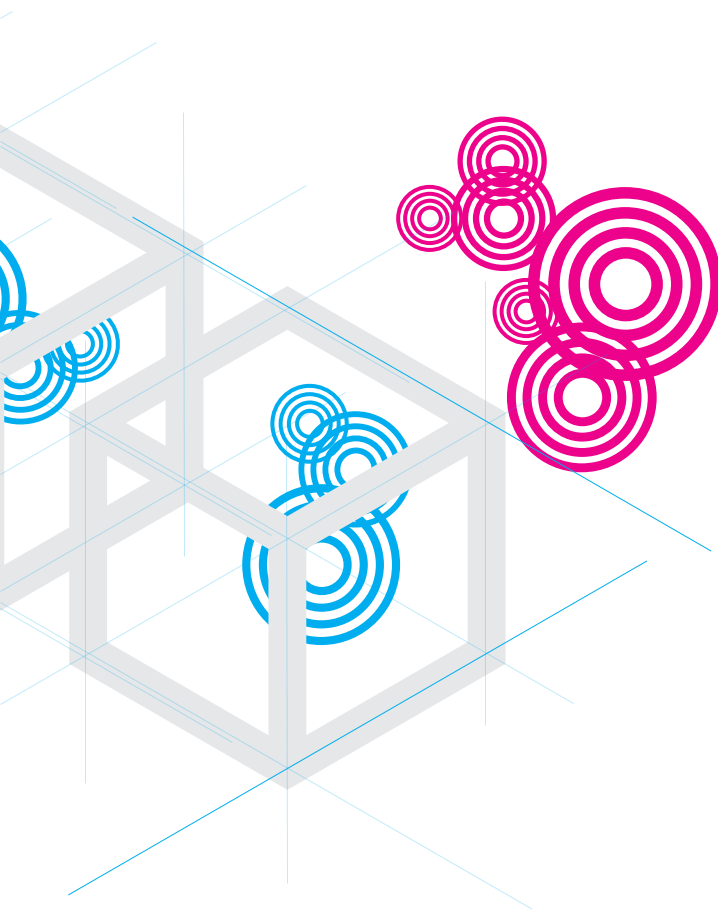
Where does that leave energy?

COVID-19 is in the air we breathe and is driving our political discourse. The virus has transformed the way we engage in our most meaningful and intimate interactions. Despite these seismic social changes, we have not aligned our industry with the shifting values playing out in what may be the greatest cultural transformation of our lifetimes.

The very spaces that keep us thriving are now making us sick—our homes, workplaces, and social venues—where the virus is easily spread through aerosols (fine droplets) in the air and contact with our communities.¹ In a practical sense, our industry has a direct and critical role to play in protecting public health. The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHREA) is continually updating guidance on building operations changes and ventilation and filtration methods to reduce the airborne concentration of the virus² and multiple scientific journals have signaled that improving indoor air quality is elemental to the future of our health.³

Now is the time to value, reframe, and extol the many measurable public health and safety benefits of our industry. In doing so, we have the opportunity to elevate the relevance of energy efficiency, expand the reach of our programs and services, and show care for customers during a fearful time. But how?





First, we need to change the way we discuss impacts.

Typically, utilities, program administrators, implementers, evaluators, and regulators measure demand-side management impacts in terms of MWh savings, bill savings, load shed, and number of participants. It is time that we reframe these metrics by touting that higher rates of efficiency reduce point-source emissions from fossil fuel generation sources. This, in turn, lowers local rates of air pollution and childhood asthma, both of which increase the vulnerability of our citizens to the worst effects of COVID-19.⁴ More globally, this also means lower carbon emissions and therefore reduced risks from climate impacts like deadlier storms and sea level rise.⁵

Second, we need to value public health benefits.

Some expanded cost-benefit models do measure lifetime carbon and greenhouse gas (GHG) emissions reductions, like the model the EPA created for state and local governments to quantify the benefits of energy efficiency and renewable energy. These should be standard practice.⁶ Additionally, we need to elevate these factors in our reporting. Our spotlight on savings has taken our attention away from health and climate metrics and kept us from recognizing that MWh and MMBtu measurements can represent other things that the public cares about—especially right now—like lower rates of indoor air pollution.

Third, we need to focus on both micro and macro benefits of health and not limit the discussion to emissions and pollutants.

Our industry can inform the public of the health benefits of energy efficiency at the **micro** (building) level and **macro** (public benefits) level.

Using current models and conversion factors, we can estimate air quality and health outputs based on energy efficiency actions and measures. Highlighting these metrics on scorecards, factoring them into performance reviews, and making sure they are prevalent in annual reports will shift the narrative and tighten the energy and health connection.

Fourth, we need to rely on better data.

The greatest gap we have in our metrics is our reliance on general conversion factors to estimate outcomes based on inputs like peak demand savings. We have been reporting carbon and emissions benefits using adjustment factors and formulas, but not necessarily truing up estimates of criteria air pollutants (ozone, particulate matter, sulfur oxides) around and near generating facilities. To truly prove the benefits we model, we need to use air quality and emissions monitoring data—real measurements—in local/regional communities and overall. For example, adopting models like the Locational Emissions Estimation Methodology (LEEM) developed by Wayne State University, can help the industry better predict emission levels and estimate costs over time to make, “more informed emission management decisions for the future.”⁷

Fifth, we need to focus on the citizens most adversely impacted by generation.

Regulators are increasingly asking program administrators to demonstrate proportional or greater-than-proportional benefits of efficiency to underserved and environmental justice communities. In some states, administrators are tasked with measuring achieved emissions reductions from the source since it is long been proven that health and pollution burdens are higher in communities of color and low-income communities.⁸

So how do we go about doing this work? Start by understanding where impacted communities are located. Many states and federal agencies have or are developing frameworks to identify environmental justice (EJ) communities. We discuss this work in our article “Defining your Underserved Customers”. These frameworks include the California EnviroScreen 3.0 and the EPA Environmental Justice Screen (EJSCREEN). For example, EJSCREEN is an environmental justice mapping tool that uses eleven environmental indicators (including particulate matter, traffic proximity and volume), six demographic indicators (including percentage of low-income, non-white, and less educated residents), and eleven environmental justice indices (including lead paint indicators and proximity to national priorities list sites) to show how the risk in select communities stacks up against what is common in the state, region, and U.S. in total. For generations, EJ communities have asked that their lived experiences are honored and not wait for data to bear this out. In a year underscored by equity (and surrounded by an abundance of data) our industry must prioritize impacted communities.



Finally, tell your story.

Our industry can address numerous health issues that people and businesses face today, including those associated with poor indoor air quality. The benefits are real and address impacts that are on everyone's mind, like reducing the risk of COVID-19 transmission. If we can measure and communicate these health benefits well, we can serve more people. If we do not make the connection between energy and health, we risk at minimum losing an opportunity to prove the value and relevance of what we do, and at most risk losing public support and funding. Aligning our tools and metrics with what policymakers know and trust, or even using open data sharing to allow other agencies to model energy efficiency benefits, could help bring a broader audience into the narrative. Then, we can draw the crucial connection between energy, health, and the climate that we can all believe in.

Gathering the Data

Once you identify regions where you need to measure impacts, gather baseline measurements and identify data sources for direct localized and overall measurement:

- **Occupant health outcomes:** Determine the baseline health conditions of residential customers and employees before energy efficiency projects and measure changes after installation using metrics like fewer sick days and lower rates of absenteeism
- **Public health metrics:** Partner with agencies to provide public health metrics like childhood asthma or hospitalization rates and measure whether changes in generation are associated with reductions in negative outcomes
- **Indoor environmental conditions:** Take baseline measurements of indoor pollutants like excessive moisture/humidity, mold, VOCs, carbon monoxide, NOx, or radon, and measure again after energy projects
- **Criteria air pollution and GHG emissions from power plants:** Use monitoring data and localized measurements to understand changes in hazardous pollutants over time

If you do not have the measurements or models to do this, partner with agencies or scientific working groups to collaborate. You can use and repurpose data collected for public health and environmental research to assess the impacts of energy-related benefits.

A Timeline of Three Crises:



TOTAL CASES | THE FIRST 90 DAYS

JAN 26
2,023

FEB 3
17,372

FEB 17
71,333

MAR 9
111,004

MAR 23
356,217

How COVID-19 Raised the Stakes for Racial and Climate Justice



As an industry and a country, we are living through the convergence of three inextricable crises: a global pandemic, racial injustice, and climate change.

The global pandemic resulted in an unprecedented loss of life and disruptions across every sector of the American economy. As the economy eroded, so too did household incomes. Mounting energy bills led to disconnection moratoria by public utility commissions.¹ As for jobs, the energy industry, which once boasted nearly 3.4 million jobs before the pandemic,² lost an unprecedented 600,000 jobs by June 2020.³

More importantly, the pandemic laid bare underlying inequities disproportionately affecting Black and disadvantaged communities across the country.⁴ The death of George Floyd was the tipping point. The phrase, “I can’t breathe” took on new meaning and urgency as a rallying cry for both social and environmental justice.⁵ Equally disruptive was the inescapable context of climate change during the pandemic. People escaping urban heat effects had to now consider social distancing when looking for cool indoor spaces,⁶ while concerns about the overlap between wildfire smoke and COVID-19 added another layer of consideration for public health departments issuing health advisories.⁷

In a year marked by innumerable challenges, this is the journey of how ILLUME leaned in to 2020 and advised our industry through the uncertainty of a global pandemic while never losing sight of the voices of those most impacted.

MAR 30
743,126

A Global Pandemic



March 24, 2020

Times Square, New York during the first lockdown.



April 16, 2020

In Texas, a line of cars at a COVID-19 drive-through testing center.

**COVID-19 CASES
WORLDWIDE**

393

82,116

256,173

1,120,502

12/31/19

China identifies dozens of cases of a new virus (later called COVID-19).

1/21/20

The first case confirmed in the United States in Washington State.

2/27/20

The Dow Jones officially enters correction territory after plunging 700 points.

3/20/20

Public Utility Commissions begin suspending utility shutoffs to households due to the COVID-19 pandemic.

4/4/20

World Health Organization reports over 1 million confirmed cases of COVID-19 worldwide.

1/11/20

China reports the first death from COVID-19.

2/11/20

China's COVID-19 death toll surpasses 1,000 people.

2/29/20

The US CDC reports the first US death from COVID-19 in Washington State.

3/23/20

FERC and NERC lessen compliance regulations as COVID-19 worsens.

59

43,109

85,240

356,682

“

One of the challenges now especially around COVID-19 . . . is that about 15,000 Navajo homes don't have electricity. If we think about the guidance that has been given around reducing virus spread of COVID, it has been around hand washing and that becomes even more impossible if you don't have running water.”⁸

Dr. Len Necefer,
Assistant Professor,
University of Arizona



August 16, 2020

Empty school hallways juxtapose images of packed bars and restaurants across the country. 2020 is dubbed 'The Lost Year' for America's children.

From the webinar
Tribal Energy Resilience



June 13, 2020

Healthcare workers, first responders, and frontline workers exemplify steady courage in the face of unpredictability.

“

The simple reality is that in March we laid off 175 employees and at that point there was no choice...The uncertainty of the situation was probably most difficult for us.”¹⁰

Todd Hanley,
Proprietor, Hotel Congress and Maynards Market & Kitchen
Tucson, AZ

From the webinar
Impacts of COVID-19 on Small Business

5,288,220

5/24/20

US COVID-19 deaths exceed 100,000. The New York Times prints names of 1,000 dead Americans on its front page.

34,416,232

10/2/20

President Donald Trump is diagnosed with COVID-19 and undergoes several days of treatment at Walter Reed Medical Center.

54,124,170

11/15/20

Biotechnology company, Moderna demonstrates 95% effectiveness in COVID-19 vaccine trials.

57,030,427

11/20/20

Drug maker Pfizer asks regulators to allow emergency use of its COVID-19 vaccine after demonstrating a 95% effectiveness rate.

59,307,493

11/24/20

COVID-19 shows no signs of slowing as more than 2,100 deaths are reported in a single day.

8/7/20

Sturgis Motorcycle Rally in South Dakota draws nearly 460,000 people despite concerns of a superspreader event.

11/3/20

Americans head to the polls on Election Day with more than 100 million people voting early.

11/19/20

US death toll from COVID-19 surpasses 250,000 with countless infection clusters appearing before the Thanksgiving holiday.

11/21/20

Despite a COVID-19 spike, travelers were undeterred as more than 1 million people passed through the country's airports.

19,145,339

47,140,765

56,392,321

57,710,848

“

We as a country, have built lots of house of cards solutions....Something like the pandemic comes in and knocks out a bunch of cards and suddenly we're all scrambling.”⁹

Lisa LeBeau Obear,
Managing Director, ILLUME Advising

From the podcast
HVAC Systems, Indoor Air Quality,
and COVID-19

November 3, 2020

A line of voters waiting to cast their vote on Election Day.





May 25, 2020

George Floyd is killed in police custody in Minneapolis, MN resulting in unprecedented calls for racial justice and police reform.



June, 2020

A statue of Christopher Columbus is toppled in Minnesota as the country's attention turns to flags, statues, and other vestiges of America's racist past.

3/13/20

Breonna Taylor is killed during a nighttime raid while sleeping in her bed in Louisville, Kentucky.

5/8/20

Ahmaud Arbery is shot and killed while jogging in Brunswick, Georgia.

5/25/20

In New York's Central Park, a white woman calls police alleging a Black bird-watcher threatened to assault her after being asked to leash her dog.

6/3/20

Minneapolis police officer, Derek Chauvin, is arrested and charged with second degree murder in the George Floyd incident.

6/11/20

Louisville Metro Council passes Breonna's Law, outlawing "no-knock" warrants and requiring body cameras to be turned on before and after every search.

6/25/20

Colorado Governor signs an executive order to investigate the death of Elijah McClain, fatally shot by police in August 2019.

June 2020

Protests, marches and peaceful demonstrations draw hundreds of thousands in the US and across the globe.

“

I think that in a lot of ways the murder of George Floyd has been that moment of reckoning for organizations working on energy and climate....The hard truth is that the energy and climate space has often struggled with racial diversity and has often overlooked, or at worst, excluded under-resourced communities and communities of color.”¹¹

Ben Passer,
Director of Energy Access and Equity,
Fresh Energy

From the webinar
Black Voices in Climate: Emerging Leadership,
Partnerships, and Stakeholder Engagement



Racial Injustice

“

As utilities we try to understand this key role that we play in quality of life. One of the things that we found out through the ILLUME research through ethnography studies and programs . . . people of color they have the same relationship with their home as other folks but they were not given the opportunity to improve that relationship and make that house into a home.”¹²

Eric Arnold,
Residential Energy Efficiency Program
Implementation Manager, Georgia Power

From the webinar
Service Equity: Legislation and Program
Offerings Driven by Social Justice



June, 2020

The Black Lives Matter movement picks up momentum across cities, communities, board rooms, and even sports teams.

6/30/20

Mississippi signs a bill to change its state flag, removing the Confederate flag symbol after more than a century.

7/3/20

The Washington Redskins NFL team announces they will change their name after a long history of using Native American imagery as part of its brand identity.

8/15/20

The “Defend Stone Mountain” protest takes place with individuals protecting Confederate monuments on Stone Mountain in Georgia, attracting violence and protests.

8/23/20

Jacob Blake is shot several times in the back by a police officer in Wisconsin.

10/7/20

Derek Chauvin, the man who killed George Floyd, is released from police custody on bail. This spurs protests throughout Minneapolis and the rest of the country.



June, 2020

The Washington, DC mayor renames the section of 16th St NW between H and K, Black Lives Matter Plaza.

“

You’re coming to work and you’re thinking that could have been my brother, that could have been my nephew, that could have been my son. And so the impact of that weighs on you. And coming to work and being able to express that in a safe and trusting environment speaks volumes.”¹³

Pamela Fann,
Director of Membership & Diversity
Integration, SEEA

From the webinar
Fostering Safe Spaces that Enable Change in
the Energy Industry



April, 2020

The pandemic left sections of Los Angeles empty of people and traffic, spurring conversations about the real possibility of clean air.

August 11, 2020

The city of San Francisco under the canopy of an orange sky as a result of nearby wildfires.



6/7/20	7/31/20	8/4/20	8/10/20	8/16/20	8/17/20
Tropical Storm Cristobal makes landfall over Louisiana, becoming the second-earliest tropical cyclone to reach the state.	A lightning strike near Grand Junction, Colorado, starts the Pine Gulch Fire and becomes the largest wildfire on record for the state.	Hurricane Isaias makes landfall in North Carolina, causing damages of \$4.5 billion and outages felt as far as New York City.	A derecho travels 700 miles from Iowa to Ohio with winds over 100 mph.	The Beachie Creek, Lionshead, and P-515 wildfires combined into the Santiam Fire, putting 10% of Oregon's population under evacuation order.	The Lake Napa Unit Lightning Complex fire becomes the third largest fire on record in California, burning 363,220 acres.

“*Can we flatten this curve too? There are some interesting parallels in that both (Climate Crisis and COVID-19) are taking . . . dramatic action to address effectively an invisible existential threat. So, we've learned from COVID-19 the actions we need to take to address climate change.*”¹⁴

Lucas Johnson,
Western Regional Manager,
475 High Performance Supply

From the webinar
Virtual Focus Group: Energy Contractor Networks



August, 2020

The US recorded its warmest August temperature ever of 130°F in Death Valley, California.

Climate Change

“

The question is when this is all over, are we going back to the way things were? . . . The bigger question, ‘Will there be structural changes to the economy which will then improve air quality and address climate change?’”¹⁵

Dr. Edward Vine,
Affiliate, Lawrence Berkeley
National Laboratory

From the webinar
Climate and Energy Action in a Public Health Crisis



November, 2020

The National Flood Insurance Program faces over \$20 billion of debt as the 2020 hurricane season delivers catastrophic losses.

8/17/20

The U.S. Secretary of the Interior authorizes oil and gas leasing on 1.56 million acres of the Arctic National Wildlife Refuge’s Coastal Plain.

8/18/20

The Santa Clara Unit Lightning Complex fire becomes the second largest fire on record in California, burning 396,624 acres over 44 days.

8/27/20

Hurricane Laura makes landfall in Louisiana, the strongest hurricane to hit Louisiana since 1856, causing \$14 billion in damage.

9/8/20

The Northern Plains experience an early freeze causing an abrupt end to the growing season.

9/15/20

Hurricane Sally makes landfall in Alabama. 2020 marks the fourth consecutive year the US is hit by a slow-moving tropical cyclone.



November, 2020

Climate migration hits the US as record numbers of Californians leave the state, citing economic factors and the threat of wildfires.

“

Environmental justice advocates are not typically offered a seat at these tables where these decisions and policies are being made. I mean, you literally have to fight to be invited. And so, while I think it’s also super important that environmental justice advocates and other advocates try and get to these tables, it’s also important for us to create our own tables.”¹⁶

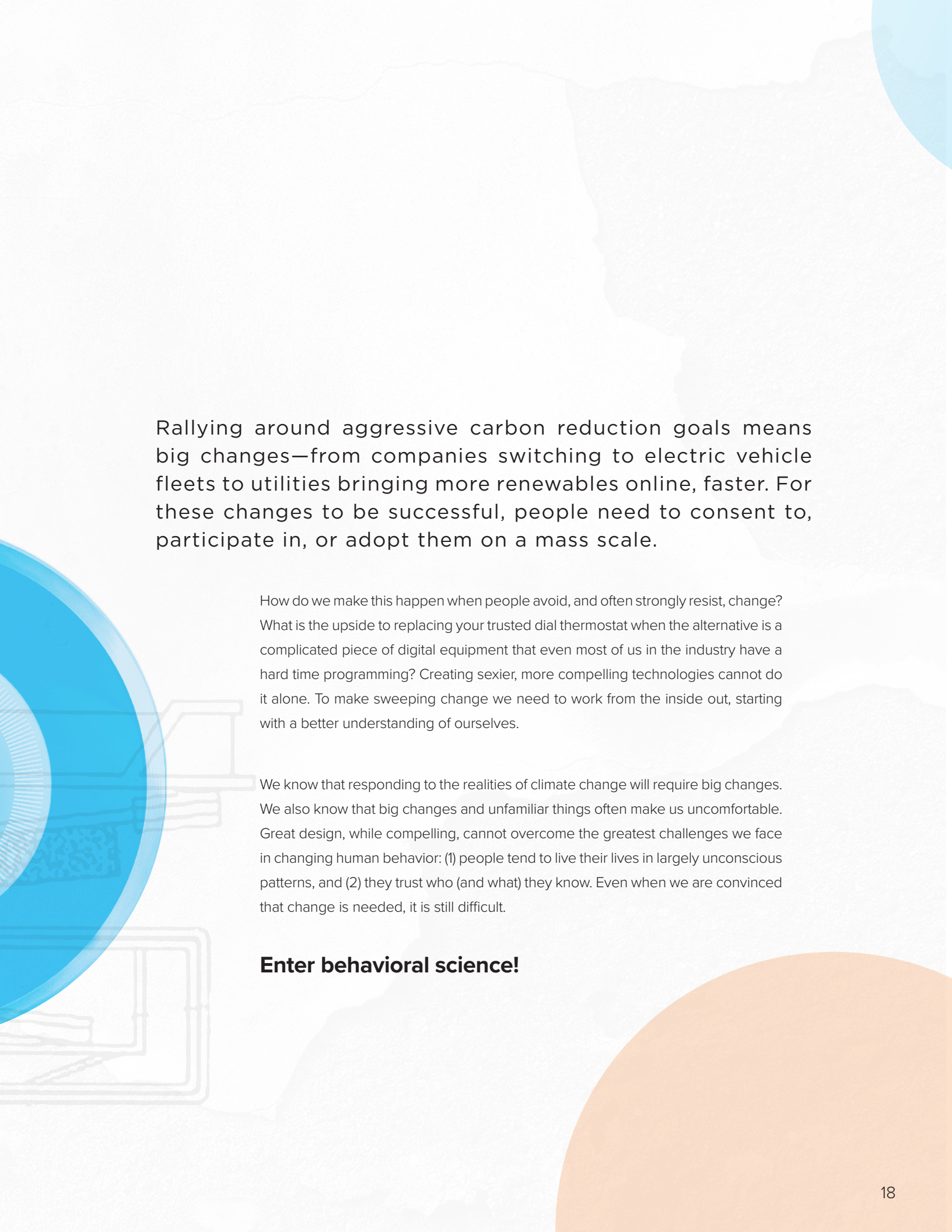
Dr. Jalonnie White-Newsome,
Senior Program Officer,
The Kresge Foundation

From the webinar
Environmental Racism and Health Disparities

CHANGE *is* HARD

Understanding How We
Approach Decisions Can Help.





Rallying around aggressive carbon reduction goals means big changes—from companies switching to electric vehicle fleets to utilities bringing more renewables online, faster. For these changes to be successful, people need to consent to, participate in, or adopt them on a mass scale.

How do we make this happen when people avoid, and often strongly resist, change? What is the upside to replacing your trusted dial thermostat when the alternative is a complicated piece of digital equipment that even most of us in the industry have a hard time programming? Creating sexier, more compelling technologies cannot do it alone. To make sweeping change we need to work from the inside out, starting with a better understanding of ourselves.

We know that responding to the realities of climate change will require big changes. We also know that big changes and unfamiliar things often make us uncomfortable. Great design, while compelling, cannot overcome the greatest challenges we face in changing human behavior: (1) people tend to live their lives in largely unconscious patterns, and (2) they trust who (and what) they know. Even when we are convinced that change is needed, it is still difficult.

Enter behavioral science!

People Tend to Live Their Lives in Largely Unconscious Patterns

There are many cognitive biases that impact people’s willingness to adopt new technologies.¹ The following cluster of biases work together to make it particularly difficult.

LOSS AVERSION

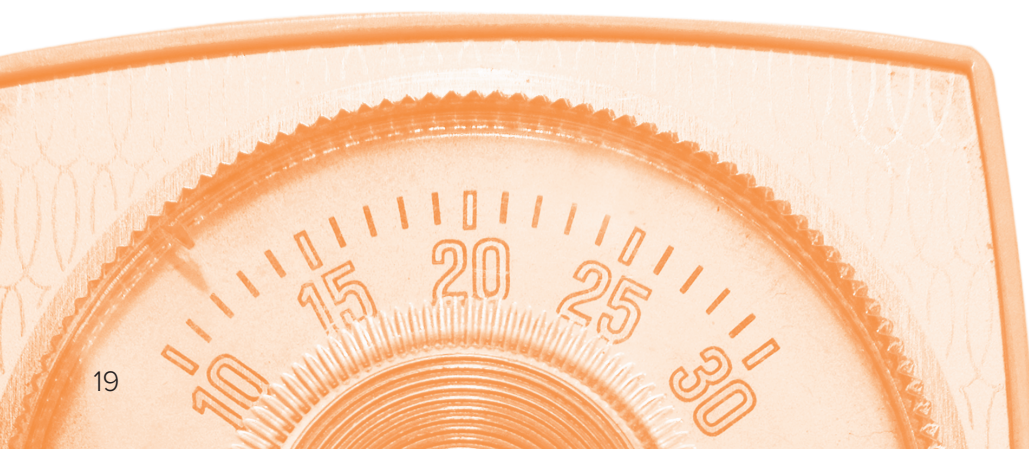
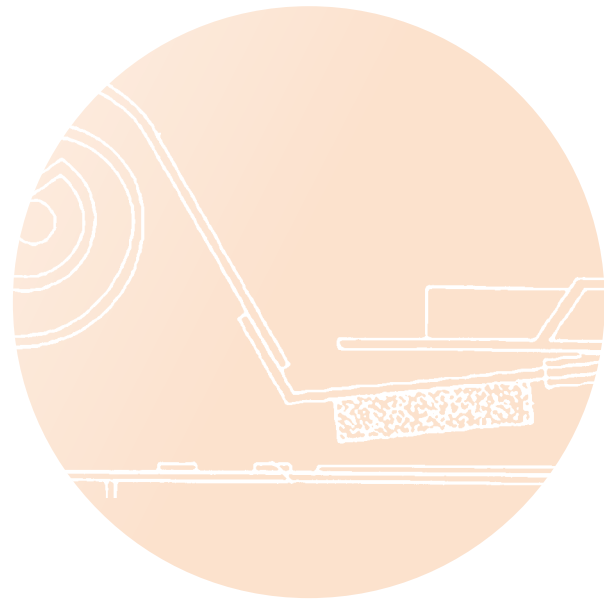
That feeling of finding \$20 in your winter coat the first time you wear it is pretty great. The feeling of searching for the \$20 bill you put in your pocket to pay for lunch is much worse than the pleasant surprise of finding one.

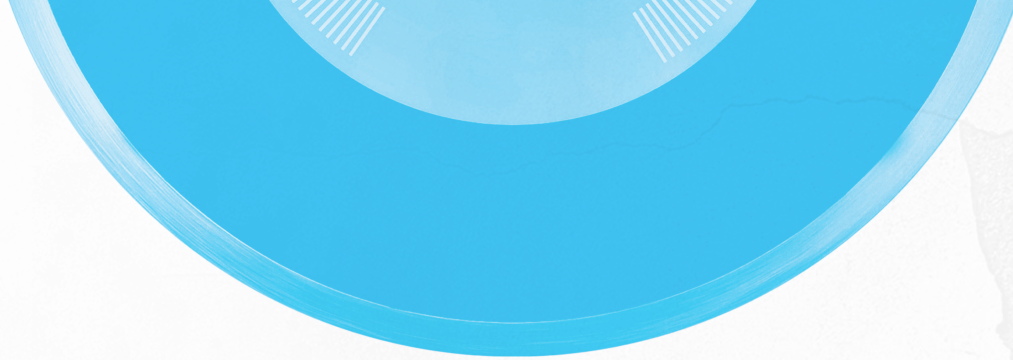
STATUS QUO BIAS

When it comes to technology, the transitional costs of adapting to a new system, the effort to do so confidently, and the fact that customers have often adapted to suboptimal technologies through workarounds, make switching to a new technology a lower priority.

THE ENDOWMENT EFFECT

When the famous decluttering guru, Marie Kondo, asks clients, “Does this bring you joy?” what she is really doing is testing what people value. People value objects that they possess more highly than the same object not in their possession. If someone values what is theirs, however irrationally, they are less likely to replace it even with alternatives that may better meet their needs.





People Trust Who (and What) They Know: Why people rely on familiarity

Studies have shown that people tend to choose the more familiar option. Termed a “familiarity bias,” this phenomenon can be understood in the context of increased feelings of safety and security around a known option.²

A familiar option entails less risk and is cognitively less challenging because it requires a reduced mental load in decision making. Faced with a choice between something that is unfamiliar and something familiar, people will largely pick what is familiar.

Getting an influencer on board can pave the way for greater adoption. By contrast, if a community leader is skeptical of a new technology, this may hinder its adoption. Individuals look to those in their social networks to gauge their behavior and concept of norms. In effect, these cognitive biases extend not just to an individual but to their social network. For example, if a customer is going to stray from the status quo, they are more likely to do so along a pathway worn by others in their network.

ILLUME conducted a study of households that installed rooftop solar and found that the majority of people who installed it did so after someone else they knew—a neighbor or a relative—had installed it. Understanding who an individual views as their peers, competitors, advisors, and aspirational figures can clarify the range of considerations they may make and the technologies with which they may be familiar.

If a customer is going to stray from the status quo, they are more likely to do so along a pathway worn by others in their network.

Change Is Hard: Why people choose the status quo

There are many cognitive biases at play that explain why people prefer the status quo.

Any work we can do to gain an understanding of the status quo will provide insights into what individuals and other market actors value about an incumbent technology. We can understand “value” at multiple points in customers’ journey with technology, including purchasing, installing, operating/using, and maintaining the existing equipment.

Understanding how and why we value an incumbent technology is instrumental in understanding potential barriers to adopting new technologies. We need these insights to develop pathways and strategies to overcome barriers to new technology.

So, what can we do about our biases?

Answering a few questions through market research may point to challenges to broad market adoption or participation or, conversely, signal where there may be a good alignment, for instance, between a technology and a customer need. With these answers, program teams can develop strategies and approaches to lower the bar to participation by working with cognitive biases rather than against them. Given the urgency of the climate crisis, we need to use every advantage we can to encourage change.

To find out, ask:

What are your customers currently doing/using? How are they solving this problem now?

What will a new technology or program/delivery design require of them?

How will that process be different from what they are currently doing?

Who is their network of trusted advisors? Can you get that network on board with the new technology/program or delivery design?

What about contractors or trade allies? What are they currently doing? How does the new technology or program/delivery design impact their day-to-day processes?

The Psychology of Product Adoption

It is no surprise that the creators of products and services overvalue their offerings. But by how much? In “Eager Sellers and Stony Buyers: Understanding the Psychology of New-Product Adoption,” John Gourville draws on behavioral economics research to present the “9x” effect.³ This is a phenomenon whereby developers of products and services value their service 9x more than the customer. John Gourville draws on behavioral economics research to present the “9x” effect. This is a phenomenon whereby developers of products and services value their service 9x more than the customer. Gourville derives this 9x effect by understanding the forces that lead customers to overvalue their current solution (by 3x) and product creators to overvalue what the new product brings (by 3x), thereby creating a gap between the value the product team sees and the value the customer sees in it.

By conducting research on how people make choices in the marketplace, behavioral economists have found that people (1) evaluate alternative technologies based on their subjective value rather than a rational cost-benefit analysis, (2) use their current (status quo) product as a baseline or reference point when evaluating an alternative technology, (3) compare their baseline with the new product and view improvements as gains, and shortcomings as losses, and (4) are more influenced by losses than gains (or “loss aversion”).

In the context of technology adoption, the implication of these cognitive biases is simple: **people may be attached to their current solution over a new technology, even if the new technology provides advantages in terms of efficiency, convenience, cost savings, or other benefits.** Gourville points out that innovators or product developers tend to exhibit the same cognitive bias as customers, albeit in favor of their product. In that case, the endowment effect and status quo bias may lead them to overvalue what their product offers to customers.

How Can Our Industry Innovate When We Cling to the Familiar?

This year, ILLUME worked with a Midwest utility to conduct research on adoption of emerging technologies. Our research to understand the current landscape for this new technology included interviews with participants, non-participants, stakeholders, and market actors including contractors, distributors, and manufacturers. We also worked closely with key stakeholders on the client team to develop strategic interventions.

Our Findings?

Trust matters across the supply chain. Customers rely on their contractor’s recommendations. Contractors and trade allies rely on their trusted brands, distributors, and manufacturers. Contractors wanted to be able to rely on a proven product so they didn’t risk a call back, and customers wanted a reliable solution so they could focus on what they cared about—building their businesses.

Trusted messengers are pivotal to shaping markets. Awareness of new technologies or rebates often flows from suppliers and distributors to the contractors who trust them. Working with these established channels of knowledge transfer and training may offer utilities a way to support broader integration and introduction of new technologies.

Suggestions for further reading

Interested in learning more about cognitive biases?

We recommend these reads:

Thinking in Bets by Annie Duke (Penguin Random House)

The Power of Habit by Charles Duhigg (Random House)

The Undoing Project by Michael Lewis (W. Norton & Company)

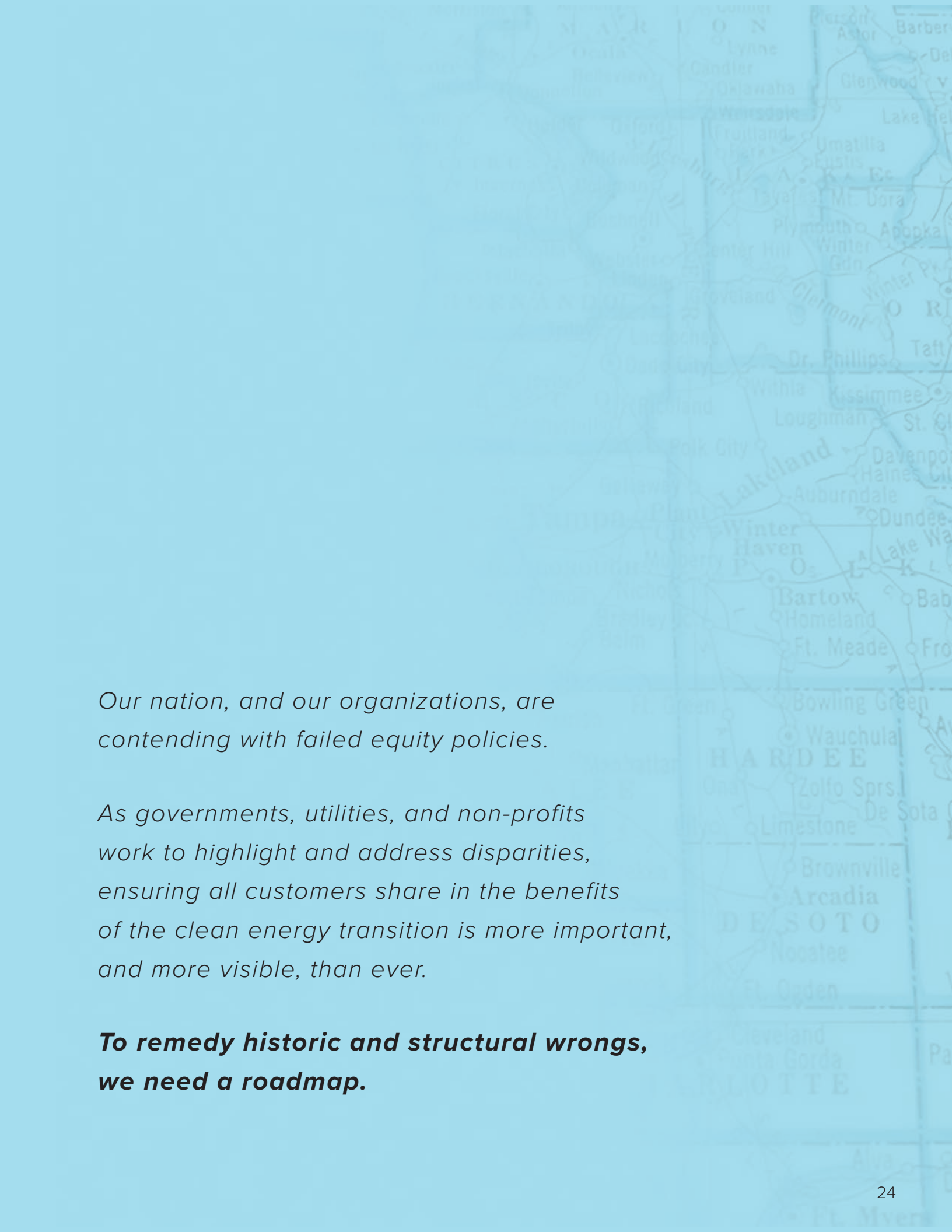
Sway: Unraveling Unconscious Bias by Pragya Argawal (Bloomsbury Sigma)

Blindspot: Hidden Biases of Good People by Mahzarin Banaji (Random House)



REORIENTING TOWARD

EQUITY



Our nation, and our organizations, are contending with failed equity policies.

As governments, utilities, and non-profits work to highlight and address disparities, ensuring all customers share in the benefits of the clean energy transition is more important, and more visible, than ever.

To remedy historic and structural wrongs, we need a roadmap.

OUR INDUSTRY HAS OPPORTUNITIES TO EXPAND EQUITY ACROSS THE BOARD

From setting policy, to organizational approaches, to program design and administration, to participation—there is room to do better. Energy burdens and benefits are not distributed evenly. Lower income families pay more of their income to energy bills, and higher income families are more likely to participate in and benefit from energy efficiency offerings. Every day, the energy industry and our regulators are coming up with new strategies to adopt and meet equity goals and mandates. As we reorient toward equity, we can employ three broad strategies:

Structural policies that recognize and address historical or cultural dynamics of privilege in an organization's make up.

Procedural approaches that create formal processes to expand and continually improve equity in decision making.

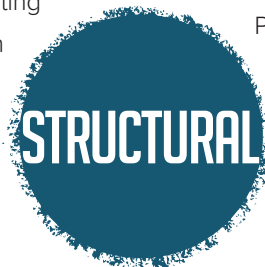
Retail approaches that increase equity by improving access and inclusion among end-use customers.

Putting the Strategies into Practice

STRUCTURAL STRATEGIES assess and address inequitable outcomes and lack of diversity within organizations but first require an understanding of where it exists. An audit, for example, can identify how existing practices and policies limit access and progression of underrepresented groups.

Creating **cultural or ethnic employee resource groups** can really move the needle on hiring-based diversity. These groups act as consultants in both internal and external business operations to make traditionally marginalized voices heard.

Georgia Power has nine Employee Resource Groups that cover race, ethnicity, and gender as well as veteran and physical ability status.



These groups provide input into operations and also support outreach and education to the diverse communities Georgia Power serves.

Policies that prioritize minority- and woman-owned businesses can increase **equity in the supply chain and trade ally networks**. These efforts use the economic scale of utilities to lift businesses that might otherwise be overlooked due to structures that favor incumbency or disadvantage certain businesses. In 2018, Energy Trust of Oregon set goals to increase the number of contracts executed with minority and women-owned businesses in their trade ally network by 50 and 15 percent respectively by the end of 2020.

PROCEDURAL STRATEGIES work by diversifying the perspectives that form an organization’s decision-making process. This creates greater equity in deciding where and how to focus program efforts and funding.

Ethnographic research provides a holistic, contextualized understanding of the values, perspectives, and barriers facing underserved communities. Feedback from underserved communities is crucial for making programs and services accessible. Critically, accessibility challenges may prevent underserved communities from even providing feedback, so it is necessary to find ways to reach people where they are. To reach non-participants in Massachusetts, ILLUME led an extensive, multi-mode data collection effort including surveys, intercept interviews, and door-to-door canvassing to reach groups of interest. We found that non-participants focused their time and resources on basic necessities (food, shelter), and perceived energy efficiency as irrelevant or not applicable to them. For more about this study, see the article Understanding Nonparticipation.



Hiring practices are an important tool for building diversity and organizations can make them more effective. In a report prepared for the Minnesota legislature, the Energy Utility Diversity Stakeholder Group provided insights to better understand the lack of diversity in the state’s utilities, and provided recommendations to ameliorate it.¹ A key recommendation was to proactively build employment pipelines that start early—in high school—to increase exposure to the sector and reduce training and knowledge barriers.

Training practices are already geared toward providing workers with knowledge and experience that they might not otherwise have; the critical layer is directing them toward underserved communities. California’s Solar on Multifamily Affordable Housing (SOMAH) program includes a strong focus on workforce development. In particular, it targets underserved populations and tenants of SOMAH buildings for job training to create benefits in the community that last beyond bill savings.

RETAIL STRATEGIES seek to democratize energy sector participation. Energy and energy efficiency are complicated topics that most people do not relate to beyond their household energy use and utility bills. It is possible to create greater equity in utility-customer relationships through better communications. Using messages that promote interaction on the customer’s terms—(i.e., primary language, or time of the time of day when outreach takes place)—can improve customer understanding of the energy sector and energy efficiency programs.



Language accessibility is about communicating complex information in a way that customers can relate to. It requires effort but can also build trust. The California Public Utilities Commission is working toward this goal through its effort to test and clarify the Solar Consumer Protection Guide it released in September 2019. The Guide is a tool to help prospective solar customers navigate the home solar process with confidence and avoid fraud or sales pressure tactics. Our team led research on the guide with both English- and

Spanish-speaking participants to improve its usability and value.

Community partnerships build on an organization’s existing communications to reach customers through trusted sources. Utilities can leverage community events (such as school outreach, job fairs, homeowner and neighborhood associations, and other community events) to increase customer learning and participation opportunities. The Massachusetts Program Administrators engage the Low-Income Energy Affordability Network and many community action agencies to administer their income-eligible weatherization offerings.

Offering **technological and digital access** through apps or notifications makes learning and communicating with customers a simpler, more everyday option. DTE Energy uses Insight, an energy use monitoring app, to help customers understand, manage, and control their energy use through a smart phone.

DEFINING, MEASURING, AND TRACKING PROGRESS ON EQUITY

To make progress, our industry needs to understand where we have been, where we want to go, and the steps in between. A fundamental first step is identifying who we want to serve better. Many states, including California, Washington, and New York, have defined (or are in the process of defining) populations or communities that are more vulnerable or have faced historical disinvestment. These definitions typically consider factors such as:

- **Exposure to environmental hazards**
- **Environmental or climate change risk**
- **Adverse public health conditions or effects**
- **Historical discrimination or disinvestment**

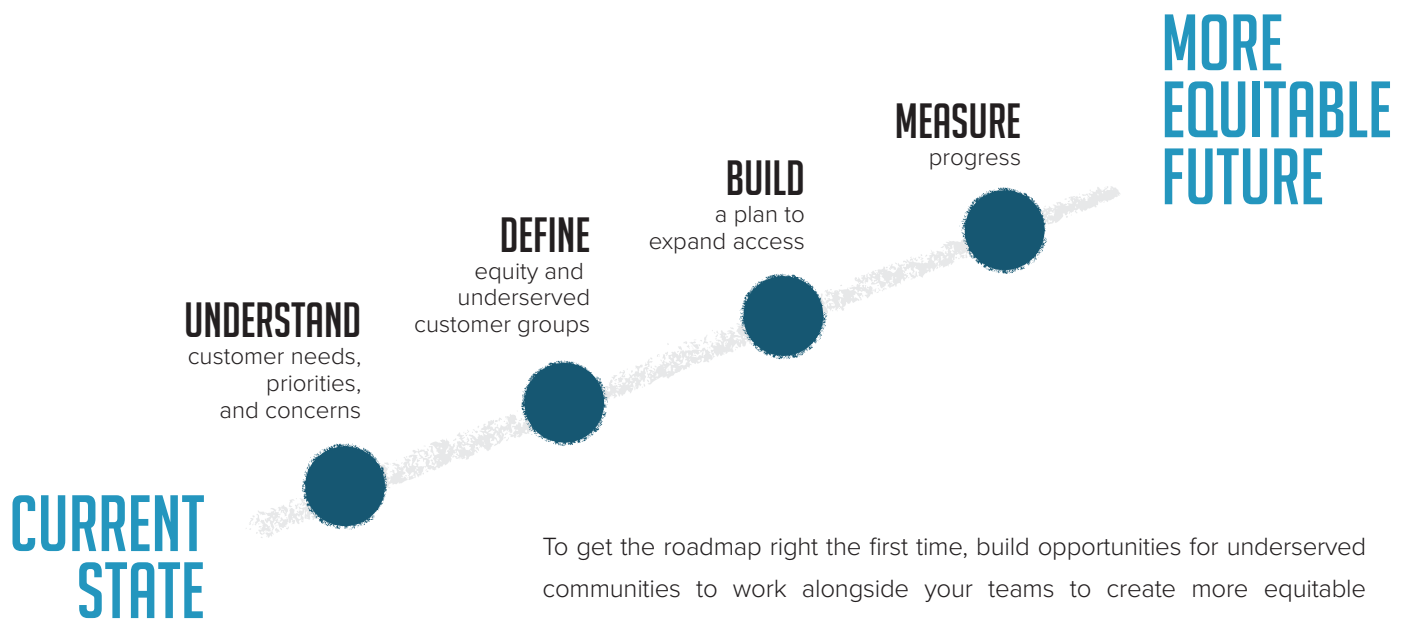
After defining underserved communities, we need to baseline and measure progress against appropriate metrics. Equity metrics are generally quantifiable and consider where resources are distributed and how much flows to each community, individual, or group. They explore whether **inputs**, such as **investment**, **spending**, and **targeting**, or **outcomes**, such as **bill savings**, **job training**, or **air quality improvements**, are distributed equitably among customers or communities.

From there, creating and tracking metrics, and making progress can take a number of forms, including:

- **Inviting environmental and social justice groups to the table to contribute their expertise.** In New York, the New York Climate Justice Working Group, which includes environmental justice representatives from New York City, rural communities, and urban communities in upstate New York, the State Departments of Environmental Conservation, Health, and Labor, and NYSERDA, provides strategic advice to incorporate disadvantaged communities' needs into the state's climate plans.
- **Publishing anonymized or aggregated energy and/or program participation data for third-party use.** For example, the Massachusetts Program Administrators publish aggregated city/town, ZIP code, and county-level data for average energy

consumption, program participation, and energy savings. Stakeholders and environmental justice advocates use this data for third-party review of equity outcomes.

- **Assigning people or groups specific responsibilities for setting and/or reaching equity goals.** This often starts with an agency or working group responsible for creating a definition for equity (e.g., the New Jersey Office of Clean Energy Equity), and the state or agencies assigning goals or responsibilities to agencies or utilities. Agencies charged with goals or targets may appoint a group or team to oversee equity efforts (e.g., the NYSERDA Equity and Affordability team). Within an organization, leadership may assign goals at the portfolio or program level.
- **Tracking and benchmarking progress on equity goals in an easily digestible, publicly available format.** Public dashboards or regular reports help prove the benefits and progress of equity initiatives. While these are not yet common in our industry, they are used in other public sector areas like education. For example, Marin County, California has a human resources dashboard that shows progress against their goal of achieving diversity, inclusion, and racial equity in the county's workforce.



To get the roadmap right the first time, build opportunities for underserved communities to work alongside your teams to create more equitable offerings. No single organization or program can accomplish these goals, but we may just improve outcomes across the board by ensuring better and more equitable services and representation inside and outside of our companies.

How do we define equity?

ILLUME's working definition:

Based on the principles of distributive justice—a philosophy that considers the ways that the benefits and burdens of resources *should be* shared amongst community members—an equal state is one in which both benefits and burdens are distributed equally.² Meaning there are no significant disparities based on race, ethnicity, gender, income, physical ability, and education. In an organizational context, pursuing equity means removing disparities based on these characteristics while creating a respectful and supportive environment for all.

EQUITY

Ideas for answering your equity questions

Whether you have individualized or aggregated data for participants and nonparticipants, utilities and program administrators can conduct an equity baseline study or gap analysis to understand the disparities within energy efficiency programs. Gap analyses and baseline studies show these disparities by investigating who is able to participate and who is not, and who reaps the monetary and non-monetary benefits of energy efficiency and who does not.

EQUITY QUESTION

EXAMPLE METHOD

How can we gather the data needed to design programs to reach underserved customers?

Survey customers—including both participants and nonparticipants—across geographic areas using a rigorous data collection approach that provides many options for underserved communities and households to respond.

Equitable data collection requires a multi-mode data collection approach, including postcard invitations, paper survey booklets, phone outreach, in-person surveys, or in-person community intercept surveys.

Is the share of program spending, energy savings, and bill savings that go to customers in underserved communities equal to spending in served communities?

Calculate project-level benefits at the census tract level for participating premises. Identify where benefits fall in combination with demographic indicators.

Classify census tracts as underserved using existing index or data and calculate share of benefits for these areas.

EQUITY QUESTION

EXAMPLE METHOD

Is the distribution of benefits equitable?

Considering historic imbalances, compare the share of households living in underserved communities with the average share of spending or benefits across communities.

How do we know if participants are members of vulnerable or underserved populations?

Survey participants and nonparticipants on variables of interest.

Compare participant vs. non-participant demographics within underserved areas.

Compare participant demographics in underserved areas with participants in least-vulnerable areas.

How do economic impacts – direct and indirect – benefit disadvantaged communities? How do they compare to non-disadvantaged communities?

Model economic impacts including program-level spending and assumptions about localized spending and employment and compare across community types

REFRAMING

DEI
FROM AN INDIVIDUAL RESOURCE TO AN ORGANIZATIONAL VALUE

AN INTERVIEW WITH

SHERARD ROBBINS



ILLUME Founder and Co-Owner Anne Dougherty sits down with Sherard Robbins, Founder of Visceral Change, to talk candidly about diversity, equity, and inclusion and reflect on the hard truths of 2020.

Most of our conversations at the intersection of energy, climate, and communities of color focus on mitigating the disproportionate burdens placed on these communities. However, this approach continues to normalize the negative impacts on marginalized communities rather than forcing us to ask, “who benefits from the clean energy transition?”

Because our progress on racial and environmental justice is inextricably linked, we must reflect on what it means to be inclusive of Black, Indigenous, and marginalized communities as we work to democratize clean energy opportunities and solutions. A select few cannot mitigate climate change, nor should select communities disproportionately bear its brunt.

If we are committed to becoming better energy citizens, we must start with being better citizens to one another. In a year capped off by executive actions that deny discussions on diversity, equity, and inclusion, how might we restart the difficult work of addressing our painful pasts and the ways our histories show up in our work?¹

Anne Dougherty: Tell us about Visceral Change and how your approach to DEI work is different from others?

Sherard Robbins: Visceral Change is an organizational development consultancy. We work with institutions and organizations to help them center their professional frameworks around diversity and inclusion. The elevator pitch is that we help organizations take their mission statement and a diversity statement and make them the same exact thing. The goal at the end of the day is to normalize diversity, equity, and inclusion in such a way where we begin to affect our mission: to move equity and inclusion from an individual resource to an organizational value.

What is unique about your organization?

SR: What separates us from other organizational development consultancies, but also other people who do the work of diversity and inclusion, is that our approach to the work is two-fold. First, we’re a systems-focused organization (See Sidebar). Second, we’re interested in each and every individual, but we’re less interested in problematizing individual people, and more interested in problematizing the system.

Why is that important to you?

SR: There are people who do this work that problematize a person, that accurately identify some of the behaviors of white people, behaviors of men, hetero-normative behaviors as the problem—and that’s correct. But without offering any recourse short of ‘do your own homework,’ we wind up hitting a wall. We try to get people to understand that it’s not you who is the problem, inherently; it’s your unchecked relationship to the system that’s allowing you to behave in this way.

For those who may be skeptical of centering diversity, equity, and inclusion (DEI) in their core mission, what argument do you have for why it is important to make sure to bring those two things together?

SR: It’s an interesting question because we have elected US government officials suggesting that this type of work is divisive—which, to be clear, is absolutely not true; our material is not designed to be divisive at all. One of the most important takeaways to help those who are skeptical, is to understand that their overall organizational health, success, and longevity has everything to do with their commitment to diversity, equity, and inclusion.

You cannot maximize your potential as an organization, institution, or corporate entity without first tapping into the potential of your diversity. In order to effectively do that, you have to first understand where your diversity lies and then how to necessarily make that a part of your overall fabric and mission.

What is the most common ‘Aha!’ moment you see when clients start to dig into their mission and values with you?

SR: At the individual level, the ‘Aha!’ moment often comes when I explain that the concept of privilege, for example, is not innate or natural. The analogy I use is in reference to a diamond: when we think about a diamond, we think about an object that is shiny, beautiful, opulent, met with a level of grace. But when we actually think about it we recognize that a diamond is just a rock; it’s pressurized carbon, a piece of the earth. Then the question becomes, ‘Why didn’t I think of that in the first place?’ The answer is because we’ve been conditioned to understand that a diamond is associated with wealth. The ‘Aha!’ moment is that the same thing goes for all types of identities. That kind of privilege—whether it’s whiteness, maleness, or able-bodiedness—these are just attributes of a person until a value is placed on them. That value is determined by societies with complex and often oppressive histories. That’s why the title of my book is, ‘A Diamond is a Diamond’, because the idea is that a diamond is just a diamond until value is placed upon it.

Organizationally, the biggest issue facing DEI, social change, and social justice is the misunderstanding and the misuse of diversity, inclusion, and equity. The order of operations needs to be just that—D, then I, then E. The challenge is getting folks on board with that particular narrative. For me, that order of operations is the journey towards social justice, and when we operate outside of that order, we wind up in a position where we’re requesting something that we’re not actually prepared to develop within our organization.

What is the relationship between equity and power?

SR: I’m a big comic book guy and there is an old adage in Spider Man (and Superman) that we have all heard: ‘With great power comes great responsibility.’ I often bring this up in reference to the difference between privilege and social power. Social power has a lot to do with one’s cachet or social capital, one’s position and ability to really affect change. I can be privileged in a particular environment, but if I’m not the CEO, I don’t have the same level of agency to control the narrative internally, regardless of what else I’m able to do with the other the privileges that I have in my life.

WHAT IS DEI?

Diversity refers to difference or variety of a particular identity. This framework focuses on race, but other markers of difference like gender and sexual orientation can be addressed as well. Diversity measures an entity’s composition.²

Equity refers to resources and the need to provide additional or alternative resources so that all groups can reach comparable, favorable outcomes.³

Inclusion refers to internal practices, policies, and processes that shape an organization’s culture. It speaks to how community members of a shared identity experience their environment.⁴

Source: The Greenlining Institute

How do we begin to contend with those dynamics?

SR: When we're working with equity and other elements of social justice, we're inherently making a commitment to upsetting the established order. This is important because there are people in the world who benefit from the way things are right now, and every discussion around social justice, environmental justice, and challenging the system is a threat to those who are doing well just the way things are. This encourages a lot of folks to not shake the tree too much. When we think about equity, we're thinking about fairness. Businesses tend to think about things in terms of policies and procedural approaches to DEI. Thus, we need to carefully assess how our organizations operate in ways that either promote or hinder DEI. When we really want things to be equitable, we want to take substantive action. We want that ink to dry on the dotted line, long term, essentially saying, This is no longer a temporary action item or goal: this is who we are and where we're going.

I think it's safer for a lot of CEOs and people who have access to power to keep things the way they are, so long as they are able to check quota boxes on diversity and inclusion. It's safer to continue to operate the way things are, which is part of the larger conversation: the misuse and misunderstanding of the three terms: diversity, equity, inclusion.

This challenges the notion of 'with great power...' You have to ask yourself, 'What is your responsibility, given your knowledge of the climate in your organization? Do you have a commitment to challenging the established order based on the language in your mission?' Truth is, you are not reflecting this particular commitment if you are not putting in the work. You are not exercising your agency and taking the responsibility, that ostensibly you should be taking, based on the goals you have set for yourself.

What do we need to do as organizations to push back against the stereotype that these conversations are divisive? What is our role in moving this work forward in the face of such actions?

SR: The role is to turn it up, keep going, and not quit. From a moral perspective, all areas of oppression win when those who are being oppressed do not push back, do not fight back. I say turn it up because there is strength in numbers. There are a lot of people who are battling the same types of challenges. The other thing that we want to do, though, is make sure that we're having discussions that are critical, that really problematize the oppressive identities and voices, and do not assume that those who are oppressed are operating from a deficit.

Specific portions of my workshops are focused on anti-Blackness, not only to honor Black folks who have died, particularly George Floyd, Ahmaud Arbery, and Breonna Taylor, but to also critically examine whiteness. In order to really discuss anti-racism, or anti-Blackness, we have to discuss whiteness and center whiteness as the issue. This doesn't necessarily mean white people, but it is also absolutely white people because they benefit from the system if it remains unchecked, and even if it is checked.

For example, if I spent all my time understanding the challenges that Black folks have gone through, and the LGBT community has gone through, but I don't talk about why these challenges arise and then highlight the problem, we're only going to have a piece of the narrative. We'll continue to operate within a deficit model, focused on those who are oppressed by the dominant structure. We want to be able to push this in a way that challenges those identities doing the oppressing, so that we can have a productive, constructive conversation about how to actually dismantle the harmful narratives and practices that show up in our businesses.

When advising employers, how might employers engaged their team members, and in particular BIPOC and LGBTQ team members, without placing an undue burden on them, often referred to as the “minority tax?”

SR: The former Director of Diversity at Harvard University once said to me, ‘You know, Sherard, we’re talking about a complex issue here and I want to leave you with something: sometimes in order to bring the diversity, you have to be the diversity.’ Over time, I’ve learned that this mindset adds to the taxation. But if you’re not at that table neither are your views or the views of the people who look like you, nor the people you’re best situated to support and advocate for. So sometimes to bring the diversity, you have to be the diversity.

For someone like me who understands this in a particular way, the effective message is: ‘I appreciate that you asked me to sit on this committee. But I’m more appreciative if you’re asking me not just so you can check a box, but with a strong attention to taking my word as value, and factor them into where we’re going to move forward.’

One essential issue is representation. If I’m serving communities of color, but I’m an all-white organization, I’m missing a critical component to the strengths of what I can offer and what we’re trying to accomplish here. People often ask, ‘But we should hire the best person, right? Not the most diverse person?’ Melody Hobson, former Fortune 500 CEO says, ‘If the question is to hire the diverse person or the best person—the answer is yes.’



Visceral Change is an organizational development consultancy that works with institutions and organizations to help them center their professional frameworks around diversity and inclusion.

Learn more at www.visceralchange.org

THE SOCIOSYSTEMIC ORGANIZATIONAL DEVELOPMENT MODEL

Sociosystemic Organizational Development (SsOD) advances Organizational Development (OD) and is the most comprehensive of OD theories.⁵

By evaluating excellence through sociosystemic design in addition to inclusion metrics, organizations commit to engaging in inclusion actively. Multicultural organizational development (MCO) and Inclusive Excellence (IE) acknowledge that excellence can only be achieved through real inclusion, so organizations that address diversity as mere quota management cannot achieve meaningful multicultural inclusion. SsOD begins from the premise that one does not simply move to equity overnight.

Thus, the model is designed to correct the incomplete quota management narrative by imploring organizations to engage in self-examinations and to develop the cultural competence they’ll need to transition through various stages of development.⁶ [stages of development](#)

Source: Visceral Change



**Is Biased
Language
Undercutting
Your
Diversity
and Equity
Efforts?**



2020 was a tipping point for conversations around diversity and social justice.

Corporate leaders including utility CEOs are clear-eyed about the need to root out structural discrimination.^{1,2}

A key part of this effort is identifying and eliminating bias in communications that undercut public statements on diversity, equity, and inclusion.

As researchers at ILLUME, we like to get specific. Precise, if you will. Language is no exception. Versed in the technical world of evaluation, measurement, and verification, we are accustomed to using specific language to describe the finer details of evaluation. Yet, despite our industry's exacting use of language to describe the effects and impacts of our programs, we fall short when it comes to selecting the right words to describe the customers served by our efforts and speaking directly to them. And just like that, we undermine the good intentions of our work.

Bias is in the details, so pay attention. Without careful thought, we can unintentionally introduce and perpetuate bias by failing to choose our words carefully. We are human, and therefore we are biased. Bias lives in our organizational language, practices, and in our visual communication efforts. And while we cannot erase bias completely from our cultures, it is our responsibility to identify when and where it shows up and to correct it.

Root out bias in your own language.

As a research firm constantly talking with utility customers from across the country, ILLUME knows that language can elevate communities or perpetuate biases against individuals and groups historically marginalized by energy programs. And because language is constantly evolving (what is preferable today will likely shift in the future), we put together this quick start guide for bias-free language for utilities and program administrators speaking to and reporting about marginalized groups in the United States.

1

Use “person-first” language. In the United States, this is generally considered more dignifying. For example, use “a person living with diabetes” rather than “a diabetic.”

2

Use the language preferred by members of that group. Organizations should defer to the preferences of members of communities they are trying to engage. While “person-first” language is typically the better choice, some groups and communities prefer identity-first language, especially those whose identities are often erased or made invisible in the dominant culture. For example, using the “Deaf community” and “Deaf Culture” is preferred. If it is not possible to directly engage members of the community to clarify word choice, program teams should at minimum research the group’s preferences.

Learn the difference between terms that are appropriate for use only within the community. Sometimes reclaimed or re-appropriated terms may still hold derogatory connotations when used by out-group members. The goal should be to promote self-definition without perpetuating harmful power dynamics or reinforcing stereotypes and stigmas.

Avoid “otherizing” or pointing out differences without cause. Pointing out difference where it is not specifically necessary could be harmful. Unnecessary emphasis on a person’s identity implies that the individual or group does not belong and subtly reinforces negative stereotypes.

Be sensitive to your readers. In addition to your editing team, get feedback from members of the marginalized group to review and provide feedback. Listen to the people whose expertise is the lived experience, and do not rely on just one individual to speak for their community. Remember, communities are not monolithic. Be prepared to make changes based on this feedback.

Avoid reductive representation. Authentic representation requires addressing the nuance and complexity within communities as well as recognizing the ordinary. Individuals and communities are often multiply-marginalized and multiply-privileged. Be careful not to fall into patterns of storytelling that highlight marginalized experiences in ways that mainly inspire feelings of pity or emphasize that people are an “exception to the norm.”

Avoid making broad statement about what is normal or what “everyone” wants. Recognizing diversity means acknowledging that the needs or wants of the majority are not necessarily the needs or wants of all people. Sweeping statements unintentionally exclude people by sending the message that if something does not resonate with a group or individual, they must be abnormal.

Be as specific as you need to be. Describe groups and individuals with the specificity necessary to inform. Broader terms tend to be misleading when more specific terms are more appropriate. For example, using the term Black/African American is more appropriate than the broader term People of Color. Broader terms may erase the unique experiences of specific groups that are distinct from the experiences of other People of Color.

Acknowledge the reasons behind disparities. Describing disparities without acknowledging the oppressive history that caused them may unintentionally lay blame on the marginalized individuals.

Be aware that misrepresentation can be just as harmful as stereotypical representations or lack of representation. Avoid using language that misrepresents or generalizes customers from certain communities as expressing affinity towards ideals like hard work, pride, or family, for example.

Examine views that impact the stories we tell. For example, people with disabilities are often described as waiting for a cure, implying that there is something to be fixed without acknowledging that often ableism is the main barrier preventing their inclusion and participation.

Want to put these guidelines into practice?



For further reading:

American Psychological Association. Bias-Free Language: Racial and Ethnic Identify.

Hamilton College (2015). Writing About Race, Ethnicity, Social Class and Disability.

We asked the ILLUME team to suggest improvements to phrases that may enter our industry’s lexicon and refer to people’s race, ethnicity, origin, income, or other characteristics. Here we share a few ideas for improving these phrases and creating more dignifying language.

Harmful Framing	Neutral Framing	Justice-Focused Framing
[Utility] is an Equal Opportunity Employer	[Utility] is committed to diversity and ensuring our team reflects the communities we serve.	[Utility] encourages members of traditionally underrepresented communities to apply, including women, people of color, LGBTQ people, veterans, and people with disabilities.
Customers with disabilities often do not participate in DR offerings.	DR offerings may impact the health and safety of some customers with disabilities, which may explain low participation.	It is important to evaluate customer sentiments on DR offerings and make adjustments so that they do not unjustly exclude customers with disabilities and lead to low participation.
Tech companies lack People of Color in leadership roles.	People of Color are underrepresented among tech company employees and leadership; they comprise about x% of employees of Fortune 500 and y% of C-suite executives.	Tech companies must do more to hire Black/African American employees and promote them to leadership and board positions. Only x% of the employees of Fortune 500 tech companies and y% of C-suite executives are Black/African American, compared with z% of the population.
Participation rates among Hispanic and Latino customers are low.	Participation among Hispanic and Latino/a customers is lower than among non-Hispanic or Latino/a customers.	Utility programs have not successfully reached Latinx people or communities, which is reflected in low participation rates.
Low-income customers are not interested in participating in energy efficiency programs.	A number of customers who qualify for bill pay assistance do not participate in energy efficiency programs.	Relevant programs need to do more to reach and engage income-eligible customers who may have more pressing concerns than seeking out energy efficiency programs.

SETTING the TABLE

FOR

CHANGE:



**WHY EFFECTIVE
TRANSLATION**

**IS LIKE THROWING
A MEMORABLE
DINNER PARTY**

As utilities and program administrators set the table for greater inclusion in their programs, how they invite participants into their programs matters as much, if not more, than what they offer them when they arrive. For would-be participants who speak languages other than English, translation is central to a gracious and welcoming invitation. Yet most of the time, our efforts at translation fall short.

In the US, those of us who speak English as a first language rarely experience the frustration of navigating the world in a non-native language. And yet we ask many would-be participants to do just that: navigate access to our offerings in a language that is not their own. The result? We make valuable customers feel like unwelcome guests and undermine the goals and best intentions of our programs.

Using the metaphor of a dinner party, we explore the experiences of constituents who speak a language other than English.

It is like getting invited to a dinner party where you do not feel welcome; the conversation is stilted and awkward, and you find yourself bolting for the door at the first opportunity you get. So how do we ensure our translations are welcoming?

Setting the Table for Change

Crafting the Perfect Invitation Requires Careful Communication and Attention to Social Expectations.

Just like it takes attention to detail and polish to design the perfect party invitation, growing your reach into diverse communities begins with effective and meticulous translation. Translation is not a straightforward swap of words from one language to another. What might be a neutral suggestion in one language or to one community can read as offensive or intrusive to another. Creating communication and outreach that resonates with the communities you are trying to reach requires attending to everyday language as it is used in context.

A Warm Welcome Begins with Directions and a Tour.

Just because you live in a welcoming home, does not mean you can assume that your party guests know your address, let alone how to navigate their way around your kitchen. The same extends to utility websites. In a recent benchmarking review of utility websites, the ILLUME team found that those with Google-translated pages often lacked translations for graphics, videos, or other explanatory materials on the website. Not only did this make it more complicated to access the materials and information, non-English speakers had an inferior viewing experience, effectively underscoring a linguistic hierarchy that put English on top.

A Great Theme Ties Everything Together.

It is all about the experience. When providing program or service materials in another language, consider the entire customer experience and offer in-language support from beginning to end. For example, a weatherization program that has an initial sign-up in Spanish but requires participants to provide their own translators for the in-home audit is not, in fact, an equivalent or equitable offering for both English and Spanish speakers. Utilities working to create programming for their non-English speaking customers must consider the whole experience.



“The Invite”

Receiving a poorly translated invitation must feel like getting a **last-minute invite** to a dinner party. You ask yourself, “**do they really want me to attend?**” In this sense, the poor translation makes the entire offer feel like an **afterthought** at best, or **disingenuous** at worst.



“Where to Sit”

We’ve all been there. You arrive at a dinner party as the **newbie**. Everyone is mingling, but **no one is speaking to you**. The **host is not around** or **too busy to engage**. In the end, you feel a little isolated and **left to your own devices**. You ask yourself, “**should I be here?**” and “**do I want to be here?**”



“Dinner is Served”

It usually gets worse from there. When dinner is served **you’re stuck**. Odds are you could be sitting next to someone **not eager to engage**, and when the food is passed there are many items on the menu that are **unfamiliar**. Like everyone these days, there are foods you’re trying to avoid. You ask yourself, “**what is best for me?**” but don’t know how to politely inquire. So instead, you eat what you’re given and wonder if **you’ll regret it later**.

When it Rains it Pours:

Are state rainy day
funds prepared for
pandemics *and*
climate change?



COVID-19 exposed many vulnerabilities of America's public health system.^{1,2} But rather than treating the pandemic as an outlier, state governments should look to the pandemic as a dry run for future climate disasters which are creating shelter-in-place conditions and shuttering economies much like COVID-19 has. More importantly, the effects of rising global temperatures are resulting in climate disasters which cost states billions of dollars each year. In the western United States, wildfires are claiming lives and destroying property, while in fossil fuel-producing states like Alaska, North Dakota, and Wyoming, the inevitable shifting away from coal is claiming jobs.³ COVID-19 has challenged state budgets resulting in a contraction of clean energy dollars. Yet, if smart leaders heed the lessons learned in this pandemic, they will be equipped to protect the health and resilience of their communities when disaster strikes again.

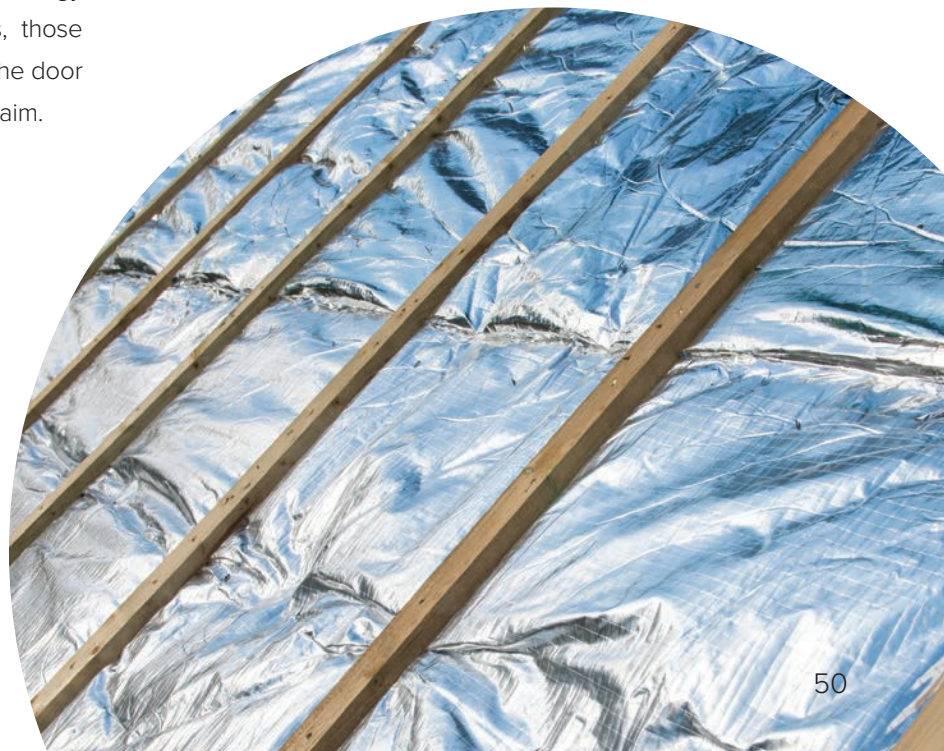
What's the Old Adage? In Case of Emergency Shift EE Dollars?

Energy efficiency programs are not typically funded through state general funds. But this has not stopped states and other entities from tapping-into or shifting program dollars funded by fees collected from utility customers during tough economic times.

In April of this year, the Office of the Ohio Consumers' Counsel (OCC), in a filing before the Ohio Public Utilities Commission, did not mince words when it recommended that commissioners redirect weatherization and home audit dollars.¹⁰ Because of COVID-19, the OCC argued that the best way to serve Ohio utility customers was **not through energy efficiency programs**, but through bill payment assistance. The OCC asked that the commission, "repurpose the remainder of 2020 weatherization and home audit programs costs for bill-payment assistance to help Ohio consumers [and] . . . Repurpose 2021 low-income weatherization costs to bill payment assistance for consumers who will sorely need it." This rate case was unique as it took place at a time when Ohioans were struggling financially.¹¹ But the fact that the OCC felt justified in arguing for the value of payment assistance over efficiency programs because, "even when energy efficiency programs save money for customers, those savings are not all achieved immediately," opens the door for future raiding based on that same evaluative claim.

A similar reallocation of funds occurred in Wisconsin in 2016 when Governor Scott Walker, state legislators, and Wisconsin's Public Service Commission, enabled a reallocation of Focus on Energy funding to expand broadband in rural areas of the state.¹² And this was not the first time. In the early 2000s, Wisconsin Governors Scott McCallum and Jim Doyle also raided Focus on Energy dollars to transfer nearly \$165 million in fees collected on utility customer bills to fund welfare-to-work programs and the salaries and benefits of prosecutors in district attorney's offices across the state.¹³

Similarly, energy efficiency sleight-of-hand also took place in 2015 in Illinois, as then-Governor Bruce Rauner proposed, "shifting \$175 million worth of energy programs from the Illinois Department of Commerce and Economic Opportunity into the state's general revenue fund."¹⁴



Deficits Are Equally Effective at Sinking Clean Energy Initiatives

In places like California and Hawaii, projected deficits forced legislators to rethink clean energy initiatives in 2020. This year, the pandemic claimed its first major climate casualty as California was forced to abandon a \$1 billion Climate Catalyst Fund intended to provide low interest loans for private and public environmental projects.¹⁵ In its 2020-21 budget, California had to draw down \$7.8 billion from its rainy day fund (in addition to pulling other levers) to balance the state's \$54.3 billion budget deficit.¹⁶ As the private sector looks to government for incentives for transportation electrification or green jobs, where will these dollars come from once state funds are tapped out?

On the opposite side of the country, New Jersey shifted \$16 million of its \$30 million Clean Energy Fund designed to meet the state's EV goal "to fund other Clean Energy programs because of the state budget crunch caused by the pandemic."¹⁷ This is important because staying the course is critical to meeting greenhouse gas reductions, a point not lost on Doug O'Malley, Director of Environment for the state of New Jersey, who pointed out the flaw in these types of fiscal maneuvers. "We should be careful about snuffing out those interests by raiding those funds . . . There is tremendous interest in the EV rebate program. It was spurring sales of EVs that hadn't existed before. The pandemic has shown what a world without so many gas-powered cars looked like. We need to continue that by making the EV rebate program a success."¹⁸

In other renewable-friendly states like Hawaii, policymakers are feeling the fiscal squeeze in different ways, as COVID-19 has put the brakes on legislative proposals on electric vehicle rebates and tax credits.¹⁹ Testimony to state legislators by members of the Department of Accounting and General Services revealed that free parking for electric vehicle owners costs taxpayers between \$240,000 – 360,000 a year. It is clear that under the fiscal threat of the coronavirus, House and Senate leadership are scrutinizing budgets line-by-line, instructing "legislative committees to not advance bills that might cost money."



Where is the Rain When You Need it? The Rising Costs of a Warming Planet

Utilities and program administrators already devote significant resources to fight rising global temperatures while climate disasters like hurricanes and wildfires place an additional burden on infrastructure. In the United States, between January and September of 2020, climate disasters accounted for approximately \$46.6 billion in damages,²⁰ and this does not include the estimated \$20 billion that is expected from the wildfires across the West.²¹ These are not coincidences nor isolated data points. In 2018, one event alone, the Camp Fire in California resulted in 86 lives lost at a cost of \$16.5 billion.²² That same year, the cost of the world-wide climate disasters reached nearly \$160 billion.²³ Data from the NOAA's National Centers for Environmental Information shows that in the last four decades, the number of climate events (and the costs associated with these) have increased exponentially. Between 1980-89, the cost of climate disasters totaled \$177.2 billion compared to \$807.3 billion in 2010-19.²⁴

While the cost of natural disasters is depleting state budgets, cuts to social programs are also taking their toll on people as utilities do the right thing by divesting from fossil-generated energy. As states abandon carbon economies, this creates an unanticipated death spiral for public coffers, most notably in states with heavy resource extraction sectors who depend on these investments to fund public services and replenish their budget stabilization funds.

Take Wyoming, for example, a state that was ranked number one for having the most cash in its rainy day fund at the end of fiscal year 2019. (It can fund the government for approximately 397 days). But a 25% decline in the coal fuel share for electric power generation between 2005 and 2020 translates into a nearly \$1.5 billion decline in coal revenues. This will have a direct effect on Wyoming's projected budget shortfall, in a state where it is estimated that the typical family of four is the recipient of nearly \$27,000 in services per year, but pays only around \$3,000 in taxes.²⁵

Alaska's rainy day fund is another example of eroding revenues. Its budget stabilization fund (the second-highest among states as a share of spending) recently hit a 20-year low as the state, "made withdrawals for six consecutive years to cover recurring shortfalls in oil-related revenue, which finances a substantial portion of its budget."²⁶



It is (already) Pouring

The COVID-19 pandemic has proven to be one of the most catastrophic public health events in recent history, and it comes at a time when some states are already bearing additional burdens that come with climate catastrophes. Let us not squander this transformational moment by using short-sighted measures to tackle existential problems.

So, what are some ways that states can batten down the hatches? Here are a few of our recommendations.

Invest in Transitional Fuel and Transitional Economy Plans:

Just transition programs are one way for regions of the country like Appalachia and Big Sky Country to, “support secure, family-sustaining jobs as global fossil reliance declines” argue researchers Bradley Handler, Matt Henry, and Morgan Bazilian in a recent piece in *The Conversation*.²⁷ Scholars agree, adding that the continual addition of renewable resources like wind and solar, combined with the low cost of gas, has resulted in the coal industry entering 2020, “as a shadow of what it used to be.”²⁸ In short, COVID-19 (and reduced demand) means hard times ahead for fossil fuel-producing states. So what does this look like to folks impacted? Cathy Kunkel a former energy analyst for the Institute for Energy Economics and Analysis and West Virginia congressional candidate said it best in a recent piece for *Forbes*. “We need to manage the transition. I certainly understand the frustrations — that livelihoods are vanishing. But if we refuse to change and keep saying, ‘no, no, no’ we will get run over by this train.”²⁹

Invest in Resilience and Equity:

Look to 2021 as the year of program offerings that keep people safe, healthy, and in their homes (equitably). Utilities and program administrators should pay close attention to programs that prioritize indoor air quality and provide relief and space for households to make longer term energy programs. Investments in Pay as You Save (PAYS) programs may provide mechanisms for low- and middle-income utility households to tap into resources,³⁰ especially in communities that have experienced systemic disinvestment as a result of decades of redlining and other unjust policies.³¹ If states must raid (or shift) energy efficiency dollars, why not redistribute those dollars within energy efficiency programs to households in greater need. Think of this as the Robin Hood model. We are not going to decarbonize the transportation sector without the help of EVs, but if there is one customer segment that could make do without incentives, it is EV buyers. Instead of shifting funding intended for EVs to non-climate programs, why not redirect funding to energy efficiency programs with a greater likelihood of impacting low- to moderate-income households.

Frame the Economic Costs of Climate Disasters vis-à-vis Other Investments:

To demonstrate the disproportionate cost of climate disasters relative to public investments, provide points of comparison like investments in job programs, infrastructure, loans and other economic assistance to reflect the impact to taxpayers. After Hurricane Andrew leveled cities and insurance funds in 1992, Florida taxpayers opted to create a state-run insurance company to insure properties. By 2012 it was estimated that Florida's taxpayers had assumed over \$511 billion in liabilities, and though they eventually scaled back the plan, taxpayers were directly on the hook for future climate disasters.³² Investments in energy efficiency programs, though costly in the short-run, pale in comparison to the cost of climate disasters.

Share your Findings (Often):

Whether at city council meetings or public utility commission hearings, it is important to state, reiterate, and restate the connections between clean energy programs and public (and fiscal) health. Sharing information like baseline rankings can help policymakers make the connection between regulation, investments, and the benefits and burdens on stakeholders. Inviting technical panelists to present also helps to cement partnerships and drive home important points. At an August Climate Council meeting for the City of Knoxville, Tennessee, a representative of AMERESCO, noted that “energy creation and energy savings can lead to avoided costs for Cities and residents alike.”³³ The presentation also featured guests from ORNL, representatives from the Tennessee Solar Energy Industries Association, architects, and members of other working groups.

Stay the Course:

If there is one thing we learned about COVID-19 and the Anthropause, “the . . . global slowing of modern human activities”, it is this: Time and a change in behavior (removing tens of thousands of cars from the road) can produce visible ecological results.³⁴ The analogy here being that allowing clean energy programs more runway, by avoiding raiding funds or cutting programs prematurely, may result in better data collection. After all, the avoided costs of electricity generation, “can occur over the long run, the short run, or both.”³⁵





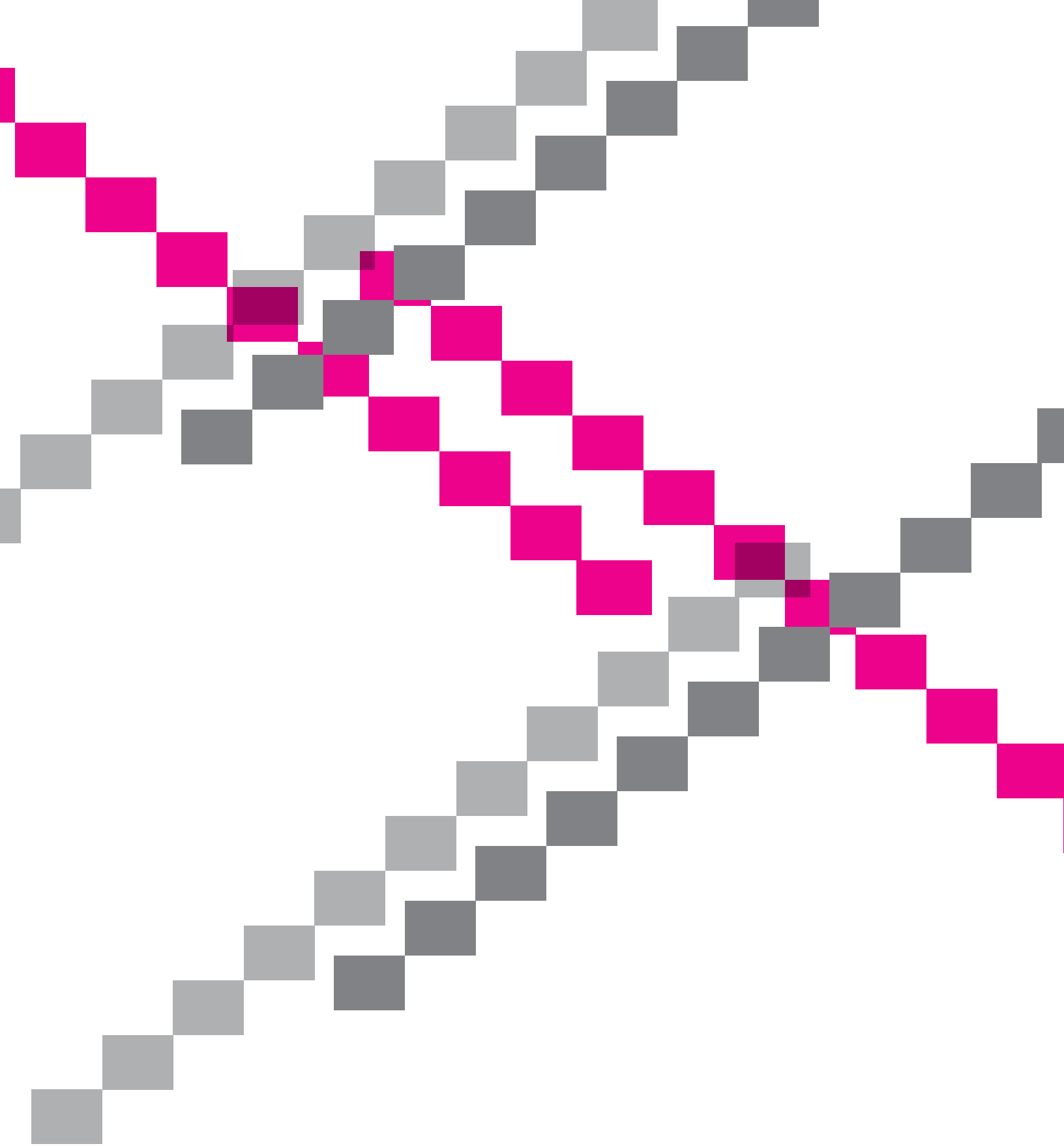
CORPORATE
SOCIAL
RESPONSIBILITY
2.0:

How Conscious Capitalism Can Deliver Value

In the past four years, we have experienced an absence of federal leadership on key environmental and social issues. In response and in contrast, we have also witnessed leadership emerge in a traditionally unexpected place: business.

2020 delivered a triple challenge to business in the form of a global pandemic, social justice movements demanding real efforts toward remedying long-overlooked racial injustices, and disasters undeniably driven by our changing climate. Business leaders—including ILLUME’s own leadership—have been asked to grow to meet the demands of this unprecedented year. And while much of our activity has been responding to the unique demands of this moment, we have also had to ask ourselves: What is our role in creating our ideal future? And then to ask, What is the role of utilities and businesses in response to issues of climate and social justice? What is the role of business as our social safety nets fail? How do we respond equitably and inclusively?

Here, we share the lessons learned by ILLUME’s leadership.



Your Core Values Determine How Resilient You Are

From the onset, it was important for ILLUME to model the company around a “feminist” business model; we solved for the talent gap in our industry by ensuring our employees never had to decide between peak career and peak family. Leaning on our values, we built a company that centered the experiences of families. While we aimed to solve for the challenges faced by our female founders, we created a firm that took a person-first view of business. Embedding flexibility and open dialogue into our business model set us up to weather the unrealistic demands of managing work, virtual school, and home in 2020.

It is easy to look at the energy world as one large system of supply, demand, and massive, enabling infrastructure. In the same way, it is easy to view business as only revenue generating. However, the primary stakeholders of our energy industry are consumers who are often reduced to revenue and demand statistics. As utilities and program administrators look to their core values, how might you (re)center the everyday people, families, and communities that make-up, and rely on, our electric grid to achieve resiliency in years like 2020? What might that look like?

What is Conscious Capitalism?

Conscious Capitalism is a framework that looks at businesses as agents of good, delivering both economic and lasting societal value.¹

Conscious Capitalism has: 1) **Higher purpose and core values**, 2) **Stakeholder integration**, 3) **Conscious culture and management**, 4) **Conscious Leadership**.²

The concept of Conscious Capitalism is attributed to Whole Foods Co-Founder, John Mackey, who rejected the mythology of profit as the sole purpose of business in his book, *Conscious Capitalism: Liberating the Heroic Spirit of Business*.

Famous conscious brands include: REI, TOMS, Patagonia, Klean Kanteen, and Netflix, among others.

Addressing Issues of Social and Environmental Justice is a Business Imperative

Be careful not to overestimate the role of government and underestimate the role we play in the lives of our customers. In last year's magazine, we posited the idea that failed social safety nets would result in revenue erosion and long-term challenges for utilities. This piece was prescient in light of 2020, as the pandemic resulted in lost jobs and pressures on businesses and households that forced utilities and public utility commissions to provide additional bill payment assistance and issue disconnection moratoria.

While utilities are used to providing bill payment assistance, the sheer magnitude of the pandemic's impact is bringing unprecedented challenges. As millions of Americans also face housing insecurity, this puts undo pressure on municipal utilities who are already feeling the downstream effects of uncertainty. In the city of Naperville, a western suburb of Chicago, the total amount of past due utility bills is close to \$2.9 million. "Somebody's going to have to pay for it. . . We need to get that back on track," said Naperville Mayor Steve Chirico.³ The amount in arrears in 2020 is five times higher than what the utility's 3,500 residential and business customers owed in 2018.

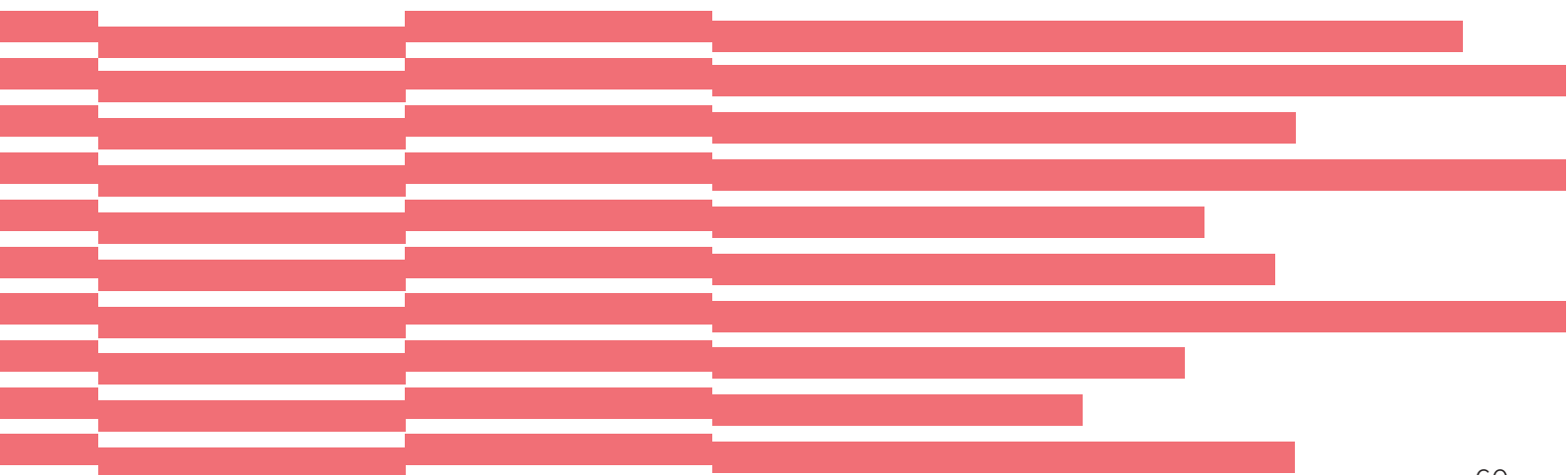
What is clear is that government alone cannot support us through these new threats. Utilities and the private sector can expect to be called upon to generate smarter, pro-social, and more forward-thinking business and policy strategies to address ever-growing challenges, including how to mitigate the impacts of climate change by better buoying their constituents.

In the last couple of years, utilities like Xcel, Southern California Edison, Duke Energy, and others have put forth strong mandates to reach net-zero carbon, while companies in the private sector have been increasing their targets for reducing carbon emissions for the last 15 years.⁴ The challenge of zero carbon is a huge lift that will occur over many years. In parallel, utilities and program administrators will also be challenged to develop solutions that better inoculate the public, and their revenue, from continued resource erosion.

You Are Only As Successful As Your Team Is Fulfilled

Like most companies, ILLUME is in constant conversation with our team. Our team is in constant conversation with the worlds they live in. If we are not tending to the issues that impact our team, then we are not creating an environment where people can thrive. To support our team through 2020, we developed parent guidelines for the pandemic and connected our teams to resources and ideas to help make stay-at-home orders livable. After the murder of George Floyd, ILLUME launched a webinar series on energy and equity to help improve our practice, address the concerns of our employees, and empower our industry to take on racial justice. But more importantly, we underwent our own diversity, equity, and inclusion journey with the help of Sherard Robbins and the team at Visceral Change.

On a recent podcast Holly Gregory, an expert on corporate governance at Sidley Austin, LLC, a global firm representing energy clients and other industries, framed the challenges ahead of companies in 2021, saying, “The COVID pandemic really reminds us that corporations are central to our well-being... The pandemic underscores the social (the S) in ESR; the dimension around worker health and safety, worker support and motivation in a virtual workplace, hiring, retaining, retraining workers... I think boards will be well-served to really dig down on how the company is approaching issues of diversity, how it’s ensuring a recognition of these issues.”⁵ When companies buoy employees with resources, this allows them to optimize their family/lives in order to show up for us.



The ILLUME Way: Bring Your Values to the Center of Your Business Strategy

What are some ways that companies can lean on their values to step up for their employees and customers? Here are a few clutch tips from a recent conversation between ILLUME Founder and Co-Owner, Anne Dougherty, and Ryan Tansom, host of the Intentional Growth Podcast.

Build a business with a human perspective:

We created better services for our clients by taking care of our employees and refocusing the attention of our research on the dreams and aspirations of the humans in their lives. Imagine what might be possible if your business or organization centers human challenges as the opportunity instead of the roadblock.

Align your work/company with your values:

Living true to your values does not mean you cannot make money. But it does require that you abandon many myths about business. Revenue and employee health are not mutually exclusive. Pro-social investments are profitable. Taking care of your supply chains, even if it costs a little more, is a smart investment. Dig deep into your values to find ways to better align what you do (the how) with your greater goals (the why). Also, it is time to begin to center the experiences of employees and customers who have been long disenfranchised. Tap into this and you will discover a new company within.

Make your employees your co-conspirators:

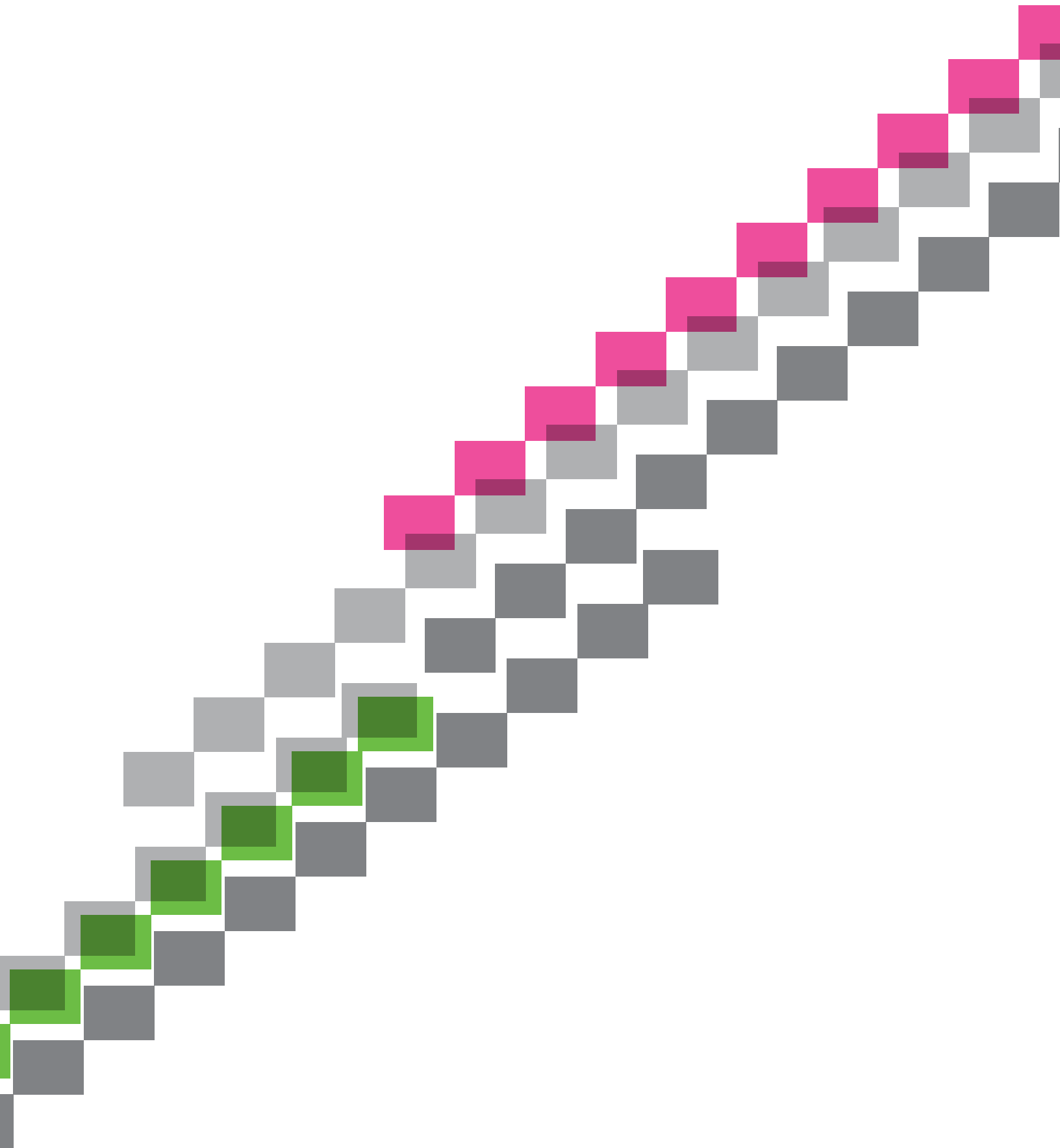
Think of your employees as a (functional) family. You are all in it together. Remember that your employees are not your adversaries. It is okay to be clear about your goals and to be transparent about financials. Also, be clear about your expectations. For our consultancy, that requires communicating billability metrics, key areas of responsibility for every employee at every level, and ensuring they fully understand the benefits they receive in exchange for their work. It is important to ensure that the keys to success in your business are clear, transparent, and understood by everyone. And like every family, happiness requires constant and intentional communication.

Listen to your team and have the hard conversations:

Shared understandings of performance metrics are central to success, and they are great catalysts for conversation. Respect that people are showing up and choosing to be part of your company every single day. They have choices. Remember that the benefits your employees want are small; what it costs you is small relative to what everyone gains.

Pass it on:

Business can step in where government has failed. The dueling realities of Main Street and Wall Street are a call to action. Conscious capitalism can better our lives. However, to do it we have to rewrite the creation myth of business – why we have businesses, what they do, and who they serve.





FROM COMMUNITY ENGAGEMENT TO OWNERSHIP

ILLUME's Principal for Marketing and Business Development, Victor Mercado, sits down with **Rosa González**, Founder of Facilitating Power, to talk about the ways that climate change and social and environmental injustice is inspiring all of us to become better energy citizens. González also explains how her model, the Spectrum of Community Engagement to Ownership, provides a new framework to co-create solutions.



AN INTERVIEW WITH
ROSA GONZALÉZ



Community-based organizations (CBOs) possess the mission, drive, and connections to implement transformational solutions in their work with those most affected by climate change. Because of this, CBOs are often tapped as trusted ambassadors by utilities and program administrators hoping to connect with hard-to-reach communities. Yet this model can become transactive. Even well-meaning outreach work or stakeholder development can “otherize” communities, simply adding them to an engagement rather than truly leveraging their value. If our goal is to better engage communities, it is critical that we really understand community mobilization and the ways in which communities are already assessing their challenges and dreaming up viable solutions without us.

Is our industry ready to take on the difficult work of centering communities?

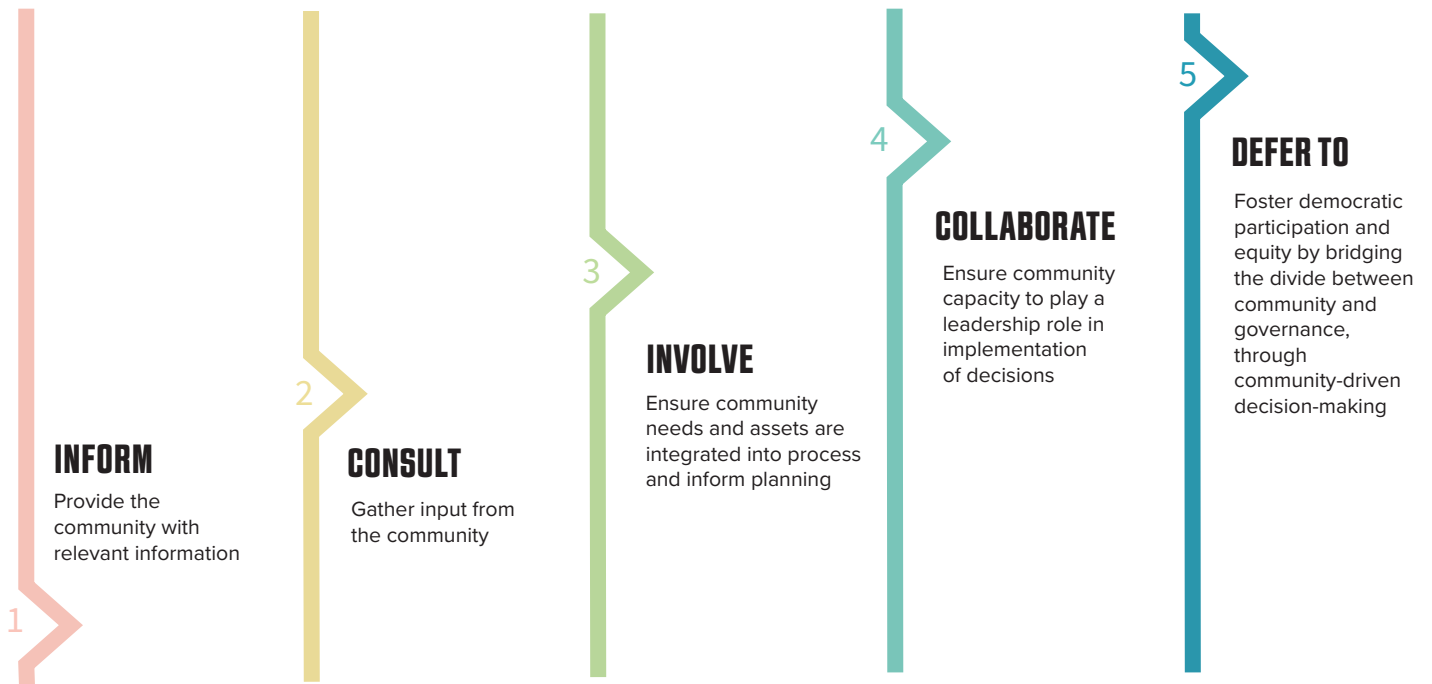


Victor Mercado: For our readers who may not yet be familiar with your work, can you tell us more about Facilitating Power?

Rosa González: Facilitating Power is transitioning from a one-person consultancy to a network of facilitative leaders focused on centering the voices and leadership of impacted communities and the decisions that impact them. The work has really evolved organically through supporting organizations around education, outreach, and participatory methods to engage communities. I was invited to the ACEEE panel by Chandra Farley through the Partnership for Southern Equity in Atlanta. We were working together on a process guide based on the Spectrum of Community Engagement to Ownership for the Greenlink Equity Maps that are being developed for 50 cities across the country. The process guide is to support city staff in collaborating with community partners on data analysis to advance equity goals.

I started out as an educator, but worked on the side doing this type of consulting with organizations in the nonprofit sector, and then increasingly started doing that more and more as my full-time work. Then I started working at Green for All and in other organizations in the climate space around leadership development, education, outreach, and bringing in the notion of the power of collective consciousness and action. Communities know what they need. Over time, Facilitating Power has grown, evolved, and is becoming more of a thought leader around how to do the work of getting to racial equity. This takes some core elements that boil down to a more living democracy, which goes beyond voting and representative democracy, to one in which the community is the unit of change. And so why is that important? Communities are groups that have a shared identity, a shared set of values and characteristics. Tapping into those values and having them drive the work is really critical. So is recognizing that communities are made up of relationships (and, as such, are systems) and we need to foster those relationships.

The Spectrum of Community Engagement to Ownership¹



The Spectrum for Community Engagement and Ownership has its roots in Arnstein's Ladder, which we also cite in this issue. How did you arrive at this framework?

RG: It came out of two processes in which I was playing facilitative leadership roles. One was the development of the framework on community-driven climate resilience planning. I was brought on as a consultant by Movement Strategy Center in Oakland to design and facilitate that process and then to write the framework. We brought together leaders from around the country in the climate justice space who were involved in frontline communities, developing and setting forward their priorities around climate justice. Through facilitated dialogue and synthesis of what we were learning from the field and from what these leaders had to say, we boiled it down to some essential elements: community vision, community solutions, and community power—those three things working hand in hand.

Can you give us an example of this type of work?

RG: Often, planning is based on a certain set of priorities that may or may not be rooted in the community that will be impacted by that plan. The importance of communities having the opportunity to put forward their own priorities really happens via community organizing. Part of the weird silver lining of climate change is that it requires us to rethink our systems, requires us to step up and dream into solutions and ways of doing things that we may not have done. We need to rethink transportation, how we get our food, etcetera. Groups like UPROSE in Brooklyn, or WeAct in Harlem, or the Asian Pacific Environmental Network (APEN) in the Bay Area are leading around what that looks like. Because often, other interests influence the kinds of plans that cities and counties and states advance—and interests that may have more power behind them, like those of developer.



Power building and community organizing is critical to ensuring that a plan can actually move from an idea to implementation, and to building that community capacity to steward solutions.

The challenges that we face, from COVID-19, to police brutality, to the climate crisis are so big and they require innovative thinking. They require thinking that really holds those core values and principles at the heart. They're people-centered and they require capacity; it's beyond just building sea walls. It's about transforming how we access food and all of our energy and housing. And those solutions exist at the grassroots level. We need to unlock the capacity to scale those solutions. So, we put forward that framework partly in collaboration with the Kresge Foundation. Yeah, long story.

Can you tell us more about this?

RG: There were a number of folks in Kresge's ecosystem. I call them grasstops, as opposed to grassroots. Some of these folks in local government or in larger, green organizations or those more ecologically focused were looking at climate solutions, but weren't quite clear on how to "add the equity" to the work. I found myself in a number of phone calls with folks who were saying, 'we've got all the right solutions on the ecological side, and now can you help us sort of add the equity?' So, I would have to have these tough conversations to explain that that's not quite how it works.

How so?

RG: We need more fundamental shifts around power and resourcing. It's about building genuine, authentic partnerships and empowering impacted communities. Trying to explain that through those conversations, I found that there is a huge gap in understanding what community engagement really is and what the role of community involvement is in advancing solutions. At the grasstops I was hearing 'community engagement' as something in the to-do list, as opposed to being the core strategy to get us to the right solutions. Without the power and participation of communities who have been historically excluded, we're not going to have the right ideas and we're not going to have the right capacity needed to actually move solutions.

We said, Wow, there has got to be a framework that helps to bridge this gap in understanding and to facilitate more collaboration. There has got to be a framework that helps to move more capacity and resources towards how we scale and amplify solutions that are coming up from the communities most impacted by this crisis. So, I turned to existing tools within the planning field, and Arnstein's Ladder was one of the tools I found. It was phenomenal to read because she wrote that in 1969 based on research into three federal programs that were designed to address issues like housing and poverty. They all had community engagement at the core of their design. She documents some of the patterns that she saw and put words to them, describing pitfalls that were further tokenizing, or placating, or manipulating impacted communities. Particularly Black communities were the focus of some of these programs.

Do you think Arnstein was ahead of her time?

RG: Reading her descriptions, they were the same challenges with top-down engagement that you hear from grassroots groups today. They get engaged by public processes designed by groups that aren't rooted in community.

What other frameworks informed your work?

RG: The other tool was the Spectrum of Public Participation put out by the International Association for Public Participation, a rubric designed to help entities select what level of public participation is needed for a given project. And to be clear, they are both great tools! What I found by putting them together, is that we could help folks be explicit about the kind of engagement they were doing, and also about the impact that level of engagement has on the communities being 'engaged.' And then we built the framework out further with wisdom from grassroots movements, particularly working on the climate and environmental justice. Community ownership of what we need to live— particularly land, housing, and energy—is what's needed to address the vulnerability of impacted communities and achieve real equity. Within community development, 'sense of ownership' is key to successful planning processes. So, when we say community ownership in this spectrum, we're talking about the sense of ownership.

That includes deference to community-driven processes, as well as community ownership of essential resources. The Spectrum of Engagement to Ownership helps us to be clear that we need to move beyond 'otherizing' communities and see them as a target of engagement. We need processes in which programs are owned, designed, and carried out by communities.

I want to make sure that people don't see it as a binary kind of thing: either it's all community ownership and therefore truly equitable, or it's not. One of the things I think is important about the Spectrum is that it articulates a developmental pathway towards community ownership. Creating authentic involvement, that really takes community organizing. But at the systems or utility level, those in power can partner with community-based organizations to help create more transparency. They can identify where communities can actually have a say, and can design processes that allow for that. It's more equitable, it's getting us in the right direction, and it's also building that muscle of genuine participation. Those different stages also have their pitfalls. Part of the work around the Spectrum is to be clear about those pitfalls and help people navigate them while planning for increased community ownership. Identifying those pitfalls helps participants avoid unintended consequences and helps entities save time in the long run.



What do you mean by unintended consequences?

RG: I was a part of the national team of technical assistance providers that supported cities like San Francisco in the development of roadmaps towards electrification of buildings. As part of a strategic compass that centers equity, we looked at how we support those planners within cities that are participating in the zero cities effort. How can they partner with community-based organizations early in the process to center equity and avoid unintended consequences. Some examples of unintended consequences when it comes to electrification of buildings and decarbonization are gentrification and the rising cost of housing, or alienating small contractors. How do we really ensure that small contractors, minority-owned contracting firms, are really able to meet the moment and not get left behind? Or ensure low-income homeowners are not getting priced out as a result? One of the findings from the process was that more work needs to be done to more effectively engage labor. There were some stakeholders from labor, and a big focus of the engagement was around how to ensure that jobs were created in equitable ways and that training was in place for folks to make that transition.

What place does community organizing have in bringing about a just transition?

RG: I think community organizing is key. Organizing can mean a lot of things to a lot of different people and can sometimes be more focused on mobilizing or getting people out to protest. But we think about mobilizing in

the sense of the work to bring members of a particular community together to assess their challenges, develop their vision, identify the right solutions, and then devise strategies for how to get there. This is so core to having a healthy, functioning democracy, particularly in a country with a long history of race-based exclusion of large communities. It really has been movement building for racial justice that has helped keep the hope alive that this could actually be a democracy that represents all people. That's so critical at the local level. It's critical that residents feel that they have a space they can create in the community that is right for them, and their children and have a sense of agency and self-determination around how we get water, how we access food. It's folks in active community who can see those intersections and help move us from the myth of individualism and personal responsibility to a sense of a collective, sacred responsibility for the health of the planet, and the health of our children.

What are some ways that the Spectrum can shake things up in the energy space?

RG: Well, for one, those practices that you just named are all great practices if done well and done genuinely. Doing so could help utilities see those practices among broader fundamental shifts that may be needed to ensure energy equity, or equitable access to energy to reduce disproportionate energy burdens. They could move away from the kinds of energy efficiency models that imagine consumer changes as the only kind of solution, toward utilities seeing themselves as a partner within a larger ecosystem.





This is a fundamental shift towards the kinds of structures and ways of organizing energy access that center communities and help to restore and repair relationships between the utility and communities who have been under resourced. If the utilities are interested in that, I think this can be a very powerful tool. We can ask: does the utility have racial equity goals to achieve more equitable access to energy? How is it creating those goals? How can it partner with community groups and local governments? If utilities engage other agencies and groups in achieving their goals, we can dramatically change what it looks like to put communities at the center.

You said agencies get to pick and choose at which level they want to engage. What types of choices do communities have when it comes to how they are engaged with?

RG: One of the ways we've been using the Spectrum is as a collaborative reflection and evaluation tool. One example was here with the Community Development Department in the City of Salinas, California. At the urging of community organizations, the city adopted the Spectrum to create a resident-driven planning process around a neighborhood revitalization effort. I've done a number of these types of Spectrum-based reflections and it serves a number of functions. One is to put those groups into active dialogue with each other around questions of what level of engagement makes sense.

Another is to celebrate successes. If a utility is engaging in the kinds of practices that you just named, that tells me that engagement is important to them and their bottom line. We can say they're actively seeking to improve how they do that work, and then celebrate the progress that's been made as a result of those kinds of efforts. We get to hear that from residents who've been impacted by it, and then set goals for where they want to be. It's a two-way thing. We've been able to use it to set collaborative goals and ask, 'what would it specifically take to get from here to there?' What would it take to make that shift from having the community on the outside, saying, 'hey, you're not doing this right,' and 'we're demanding greater voice in this process?' That input is really important that can push on systems and agencies to make shifts. But once the door has opened, then it's about us collectively asking 'what are OUR shared goals and how are we going to get there, together?'

I love that! On that note, I want to thank you for taking part in this conversation.

RG: Thank you so much for the conversation. I also learned a ton and really appreciate the work you're doing.



Facilitating Power works to create a thriving culture of participation in which communities work together to solve social, economic, and environmental challenges.

Learn more at www.facilitatingpower.com

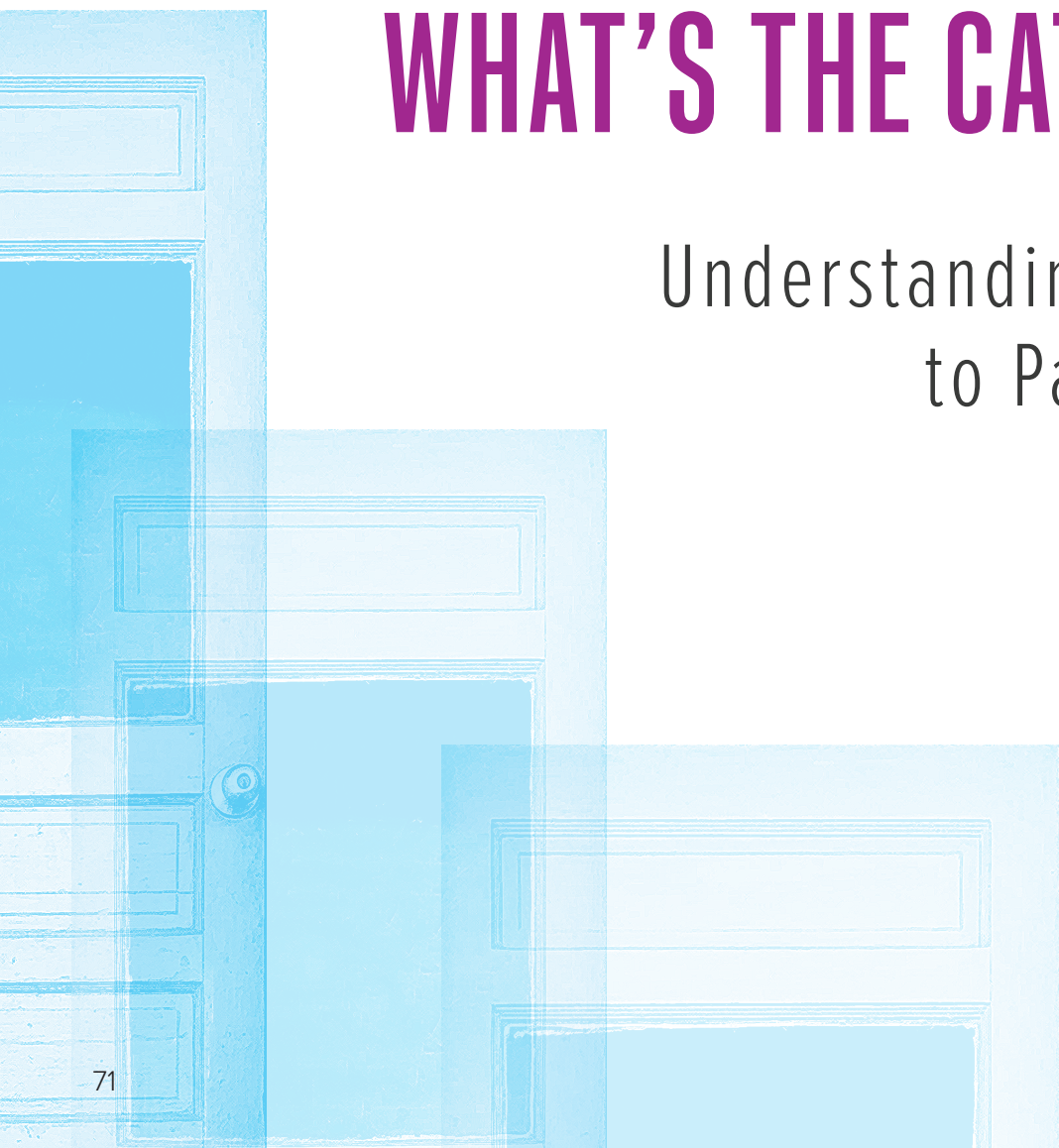
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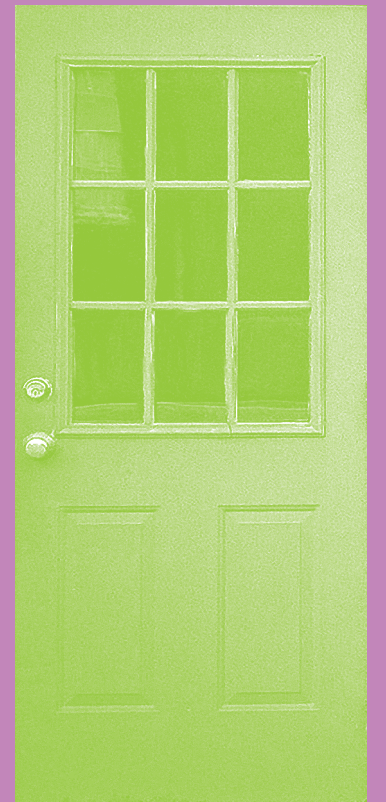
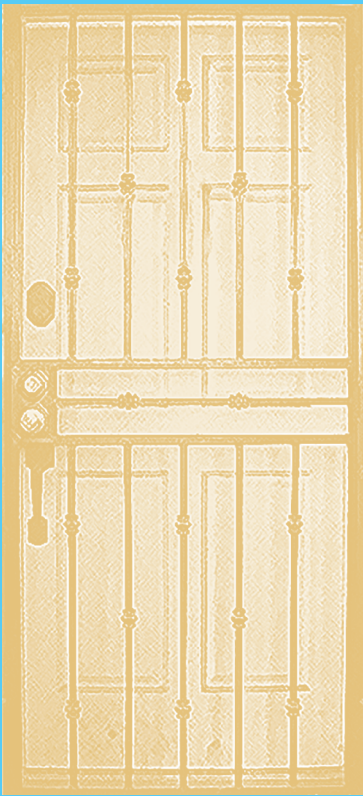
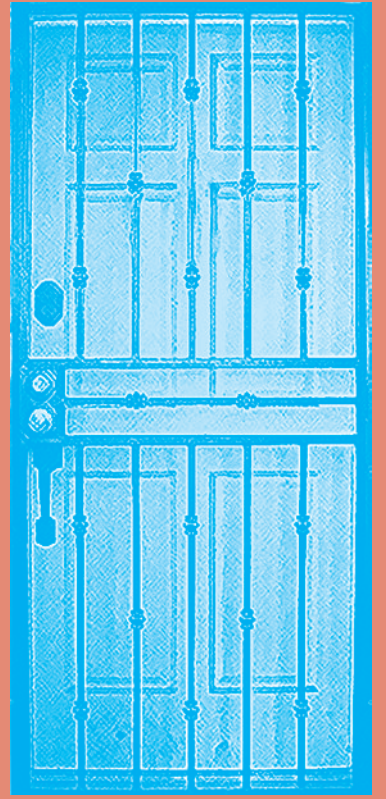
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WHAT'S THE CATCH?

Understanding Barriers
to Participation





ILLUME conducted a one-of-a-kind study to examine why people do not participate in programs in Massachusetts.¹ In addition to mailed surveys and phone calls, we knocked on more than 500 doors to answer one pressing question:

Who are we missing in our programs and services, and why?

Many of us already equate citizenship with active engagement in a community. That engagement can take many forms. If we construe “energy citizenship” narrowly, seeing only participants in decarbonizing efforts as “engaged” while counting non-participants as “disengaged,” we risk misunderstanding our communities. We must look beyond whether customers are informed about efficiency programs, and look even more closely at other factors that may impact their engagement. These may include access to stable housing, resources, perceptions of enrollment programs, trust in the messenger, and most importantly, time.

The vast majority of us use energy and pay for energy programs. However, very few of us take part in the benefits they offer. Without greater levels of participation, we will not achieve the market traction needed to meet our aggressive greenhouse gas reduction goals. *How can utilities and program administrators engage nonparticipants in a year marked by disruption, misinformation, and distrust? And how can utility customers trust the information they see about programs, many of which can seem too good to be true or appear counter to the utilities’ interest in selling energy?*

Even with the best-laid efforts, those who need programs and services the most—and often live in housing with the highest energy savings potential—are the least likely to take advantage of them. This is especially confounding in the case of people in disadvantaged communities that may qualify for low-cost or free programs. For decades research has sought to uncover why eligible customers do not participate and understand how to overcome the barriers they face. Here, we share our recent analysis of who does not participate in our programs.

“Anything that requires a permanent change is a homeowner thing.”

*– Survey Respondent
(renter), phone interview*



Missing the mark: Who are we missing? And what matters most to them?

Nonparticipants are not a monolith. There are myriad reasons someone may not take the time to seek out energy efficiency programs and services. And while there is no single characteristic that defines this group, there are common trends. **Here are some of our key insights:**

Families concerned with more pressing basic needs

Households with lower incomes necessarily prioritize day-to-day essentials like food, shelter, and childcare over anything else. Signing up for a program is often a luxury they can't afford — a luxury of time, headspace, and, in many cases, finances. When compared to their everyday needs, many see energy efficiency as irrelevant to their lives, a frivolous luxury, or simply something that does not apply to them. If a living wage is critical for combatting climate change, cities and utilities may have to shift from the micro (household) level to a macro (community) approach to meet aggressive EE goals.

Residents with Limited English Proficiency (LEP)

Customers with LEP expressed two primary barriers to participating in programs: **(1)** they do not fully understand and, therefore, mistrust the offer, and **(2)** they cannot engage *throughout* the program. Many LEP residents reported a fear of being taken advantage of. But this is not about trust per se; residents with LEP indicated they may not fully understand what they are being asked to sign up for and how it benefits them. To make things worse, when they do take steps to participate, they are quick to drop out because programs fail to provide language services throughout the customer journey. For example, even if a program offers marketing messages in languages other than English, residents with LEP often need to schedule appointments, speak with contractors, or fill out applications or paperwork to actually participate — tasks that often lack options in multiple languages.

Those who lack trust in institutions and outsiders

Many individuals we spoke with viewed energy efficiency as government programs, similar to Medicaid. In some cases, this created credibility for the program and could lead to increased participation. In other cases, however, this view was reason for caution. People who do not trust the government extended their skepticism to energy programs and services. This was especially true among those with negative beliefs about, or experiences with, government agencies. For example, people who are undocumented or who live in communities with undocumented individuals expressed fear of participating in programs and services that require them to give identifying information because they worry that their personal information will be reported to Immigration and Customs Enforcement (ICE). Others have had bad experiences with outsiders more generally, people unknown to themselves or their community, and fear scams or malintent.

Households experiencing transience. These households—often renters moving from place to place—do not feel they can make upgrades to their homes because they do not own the property and do not believe their landlord would agree to participate on their behalf. Worse, many renters do not trust their landlords and do not believe that their landlord would make improvements just to help them save money. When we spoke with landlords, we found that tenants perspectives were often validated: some landlords do not allow renters to pursue upgrades while others avoid programs out of fear that a building inspection might uncover code violations that require repairs.

With her gas cut off,
everything else is irrelevant

Ana sighed as she sat down for an interview with our team. She was on a break from the Community Action Program (CAP) agency where she worked. As the interview team explained the program offerings, she interjected, “They just turned my mother’s gas off. It’s November and they turned our gas off. I thought they weren’t supposed to do that. And we have children in my home. What are we supposed to do?” She explained that they owed \$117 on the bill and had paid \$90 but could not pay the bill in full. She expected that her substantial payment would delay the disconnection. She was distraught that the gas had been turned off just at the beginning of winter, and worried for her children. Although she was interested to hear about program offerings, all of them seemed irrelevant compared to her urgent need to have her gas turned on again. Understandably, access to heat was her primary concern.

“When we came to the US, my husband told me never to share any information because it could be used against us in the future. Have you seen the new policies the current administration has implemented? He was right all along.” - Intercept Interviewee

“When they say it’s free, it is not true. Nothing is for free.” - Intercept Interviewee



BUILDING TRUST IN AN ERA OF MISINFORMATION (WHAT IT TOOK)

To reach the unreachable, our team had to swim upstream, weeding out inaccurate addresses and building trust in communities where we were seen as outsiders. In an era of misinformation and conspiracy theories, and in a year of heightened feelings of unease with Census workers also canvassing for information, ILLUME was well aware of the challenges we faced with this research effort.

To reach as many people as possible, we used mail, email, and telephone touchpoints in four languages. And, when we knew we were still missing people, the ILLUME team went door-to-door to collect surveys from customers who had not participated in programs in the past. While time and resource intensive, our door-to-door efforts were the most enlightening. Those who spoke with us emphasized the importance of trust and were more receptive to our team when we partnered with agencies, neighbors, or family—those considered a part of their community—to complete our work.

Even when people refused to speak with us, we learned from it. People who answered the door but did not participate cited a fear of scammers and distrust of outsiders, in addition to a lack of interest. For these customers, the notion that someone was there to help them (including on behalf of their utility company) was hard to believe.

SUPPORTING COMMUNITIES BY EXPANDING COMMUNITY

To raise program awareness, one of the best known and most effective strategies is partnering with organizations already embedded and trusted in the community (see interview with Rosa Gonzales). Food banks, faith-based organizations, and local government agencies have long-standing relationships, have established trust, and regularly communicate with the people they serve. Many utilities and program administrators have likely already leveraged these relationships and hit a customer participation ceiling. How do you expand your community to reach deeper into communities?

Here are our go-to suggestions:

1. Break The Mould And Create New Partnerships

Go beyond historical implementation partners and establish new relationships with other types of organizations to help reach the truly disenfranchised. In some cases, this means working with organizations that specialize in serving non-English speakers rather than the greater disadvantaged community. When outsiders like program staff show up together with other community members, it establishes a stronger sense of trust and legitimacy than an outsider could gain going it alone.

2. Customize Outreach Approaches

Looking for ways to reach nonparticipating segments? Different outreach efforts tend to reach different types of people. To reach higher income customers and those with college degrees, our research found that online outreach (emails, web surveys) should be your go-to. For outreach to renters, lower income households, and those without college degrees? Pick up the phone, but if choosing between online or mail methods, online is best. For lower income LEP households and retirees, mail is better than online approaches. Understanding who responds to which type of effort can increase the participation of groups of interest.

3. Use Customized Marketing Strategies

Customization is key to effective program recruitment. If done well, your marketing can reinforce the idea that programs provide benefits that will improve the daily lives of customers in ways that really matter to them (e.g., health benefits, more money for necessities, improved home value). Your messaging can directly address misconceptions like “energy efficiency is only for the wealthy, it’s a luxury” and “programs are government run/funded.” By speaking to a community’s specific concerns, you will bring more residents into your programs.

4. Streamline Participation

Treat your residents’ time like a priceless resource. Challenge your design and implementation teams to create opportunities that are “least-time” to combat the perception that participating is onerous and detracts from more pressing concerns. Lower hurdles like asking would-be participants to make multiple phone calls or schedule and reschedule appointments with contractors. For LEP customers, ensure that they can navigate the entire participation process in the language of their choice.



“Knowing about someone that has gotten the service before and sharing their experience can go a long way in making people more comfortable using the services.”

- CAP Agency, community organization interview

“I think partnering with local organizations is what has really made everything click for us. It really added a level of trust about what we do, who we are, and people feel confident and safe in dealing with us.”

- CAP Agency, community organization interview

CLOSING

By exploring the characteristics of customers left behind by our programs, and taking the time to listen to their lived experiences through an extensive, multimodal research effort, we were able to bring our clients in closer conversation with all of their residents, not just the easy to reach. And, by going the extra mile to hear their stories, we were able to craft specific and concrete ways to overcome common barriers. It starts with listening, and then grows into a set of recommendations that might just benefit all the communities our programs aim to serve.

Show Me, Don't Tell Me:

**First-hand Experience is the
Gatekeeper to Widespread EV
and EVSE Adoption**



Electric Vehicle Servicing Equipment (EVSE) is critical to widespread adoption of EVs. The ILLUME Team had the pleasure of collaborating with ERS and Dunsky Energy Consulting to conduct an evaluation of National Grid Massachusetts's Electric Vehicle (EV) Charging Station program (Charging Program).¹ The program is designed to spur the development of Level 2 charging stations and Direct Current Fast Charging (DCFC) stations throughout National Grid's service territory in Massachusetts. ILLUME led market actor and consumer research and learned a thing or two about the attitudes, beliefs, and motivations of internal combustion engine (ICE) consumers and electric vehicle charging site hosts. Here, we share a few key learnings from their perspective.

NON-EV OWNERS (ICE CAR OWNERS)

ILLUME surveyed non-EV owners in Massachusetts, unearthing persistent barriers to EV adoption. Here is what is top-of-mind for them.

“I do not know much about EVs.”

Awareness does not equal knowledge when it comes to EVs.

- Over 70% of ICE car owners could name an EV brand.
- However, only about 10% of non-EV owners felt they knew a lot about EV attributes (driving range, makes/models, how or where to charge, and difference between battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs)).

“I do not know if this will work for my life.”

The most pressing question: Will this meet my daily need?

- Nearly half of customers (48%) answered “don't know” or “neutral” to whether EVs could meet their daily needs.
- Even more customers were unsure or neutral about whether EVs are more fun to drive than conventional vehicles (75%), as reliable (56%), more expensive to maintain (54%), or better for the environment (48%).

EASY WINS TO SUPPORT GREATER EV ADOPTION

1. Seeing is believing for would-be EV owners. Increase visibility of EVSEs using highway, city, and neighborhood signage.
2. Highway access to fast charging will be necessary to drive adoption for consumers who want to use their EV for regional and vacation travel.
3. To get customers over the fear of losing beloved features such as AWD, promote EV's “fun to drive” features and connect more customers to test drives.
4. Consumers will buy what they can try. Create neighborhood EV drive events. Invite current EV owners to discuss their cars with would-be EV owners.

“Can I afford it?” and “Can I get where I need to go, and how long will it take?”

Upfront cost and range anxiety have to be addressed simultaneously.

- Upfront price and driving range emerged as the biggest questions and concerns that non-EV owners have about EVs.
- Long trips—across Massachusetts and out-of-state—are top-of-mind for non-EV owners thinking about whether an EV could meet their needs. Nearly half (47%) of non-owners felt that the EVs on the market would not meet their needs for long trips.
- Range anxiety remains a limiting factor as well as range itself. Some customers mentioned a specific range that would meet their criteria, most commonly 300 miles (and some wanted 400 miles).

“EV’s do not have the features I like in my car.”

For many, EVs are not a one-to-one replacement with their existing ICE cars as EVs lack valued features.

- Some customers felt that the EVs on the market may not meet their needs due to drivetrain, towing, trailering, or cargo capacity.
- In particular, the drivetrain may be a short-term hurdle: nearly two thirds of respondents said their primary vehicle is all-wheel drive (AWD) or four-wheel drive (47% and 16%, respectively; 63% together).

“I see charging around, but it might not be where I need it, when I need it.”

Seeing may not equal believing.

- Nearly three quarters (72%) of non-EV owners reported seeing EV charging stations in Massachusetts, most commonly at retail locations (including restaurants, convenience stores, pharmacies, and malls) and paid public parking.
- Just under one quarter (24%) have seen one in a travel plaza or highway rest stop, and 12% at a gas station.
- Despite seeing charging stations in public locations around home or work, these personal experiences have not reduced customers’ anxiety about charging options and range.

When it comes to charging availability, some customers expressed an expectation that they should be as common as gas stations.

About 62% of non-EV owners felt that, “If I had an electric vehicle, I’d always worry about where to charge it,” and 61% felt that, “If I had an electric vehicle, I’d constantly worry about running out of battery.”

DCFC SITE HOSTS

ILLUME interviewed DCFC prospective site hosts, who were looking for particular business outcomes when installing DCFCs. This is what site hosts consider when looking to invest in fast charging.

“Tell me about my options.”

Prospective site hosts relied on vendor relationships for guidance.

- Prospective site hosts rely on EVSE vendors to steer them toward opportunities and guide them through station planning.
- Each prospective host we interviewed had a close relationship with at least one vendor who they considered a partner and who they relied on for information about available funding from states and/or other funding sources including utility programs.

“Where can I get the highest incentive?”

Site hosts think, and plan, across state lines.

- Funding differences between states drives locational decisions for multi-state businesses. DCFC prospective hosts that operate in multiple states are more likely to invest in states that have higher funding opportunities.

EASY WINS TO SUPPORT GREATER EVSE SITE HOST PARTICIPATION

1. Communicate the business cases for DCFC site hosting using both revenue and customer loyalty models.
2. Develop vendor-specific incentive programs, as most would-be site hosts are leaning on EVSE vendors to help them navigate the adoption of this new amenity.
3. Use industry specific case studies to communicate the value of EVSE site hosting, as potential site hosts are looking for more concrete “proof” of the benefits.
4. Consider incentive structures that entice potential site hosts to pilot DCFCs at select locations. This will help site hosts determine the business value of investing in DCFCs.

“What will I gain by installing these stations?”

Prospective site hosts we interviewed were interested in installing DCFC stations for different reasons.

- Some prospective hosts believed owning and operating DCFC stations could be profitable, especially as EV adoption increases; this perspective was held by gas station and convenience store representatives we interviewed.
- Others thought that hosting a station could provide a competitive advantage and improve their customers' experience. These prospective site hosts were not looking for a new revenue opportunity but, rather, were considering offering fast charging as an amenity that their competitors might not offer.

“Let us try it out and see how it goes.”

Prospective site hosts want to better understand whether their initial investments in DCFC stations would result in positive business cases that attracted more customers and increased revenue and profits.

- Prospective site hosts considered their planned DCFC installations as “test cases.” They were seeking and gathering data to analyze the business case for potential future investments and at what scale.
- All representatives interviewed saw the EV market as emerging, with an unknown growth trajectory. Representatives were uncertain about customer usage of the chargers and their potential revenue.
- Several interviewees acknowledged that operating costs (including charging behavior impacts of electric bill demand charges) are also challenging to forecast.

ALL HANDS

DESIGN

Participation and Democracy as Innovation



Program administrators, implementers, and evaluators can learn a lot from stakeholders, trade allies, and customers, but only if we listen.

There is often a disconnect between a customer's experience in a program and what the designers of that program envisioned. After all, administrators and implementers often design from the perspective of their own preferences and experiences and/or what an evaluation team has recommended to them. Yet, because most consumers are not well informed on energy offerings, particularly when we are discussing emerging energy technologies, there is often a gulf between the best intentions of a program or service and the experience of participants. Participatory design can help solve for this disconnect.

Using participatory design, we can gather a wide range of stakeholders from administrators and implementers to trade allies, customers, and community-based organizations to get offerings right before they hit the market.



The core of participatory design is that the people who will be impacted by the design (end users, market actors, trade allies) are integrated into the design and have a voice in the design process from the beginning.

So how do we integrate participatory design into our planning processes?

Below we illustrate a re-envisioned process from the perspective of a utility electric vehicle servicing equipment (EVSE) offering, drawing on our recent evaluation work with partner ERS. In this work, we listened to EV charging station site hosts through in-depth interviews. We found that the motivations of site hosts vary considerably; some prospective site hosts were interested in owning and operating charging stations to generate revenue from this service (especially DCFC stations) while others were motivated to provide a better experience for their customers by offering onsite charging.¹

The situation:

Utility X wants to develop a program to support residential customers adopt EVs in their territory by driving EV charging infrastructure development.

The question:

How can we design an EV program to meet utility and state goals?



Step 1: Understanding

As written, the design question, “how can we design an EV program to meet utility and state goals?” is utility-centered, not user-centered. This question does not address why a commercial customer might be interested in installing EV charging infrastructure, nor any challenges or barriers they might face in doing so.

The first step to remedy this disconnect is simple: identify and understand the needs and concerns of the future participants of an EV charging infrastructure program. In this case, it is also critical to understand the needs of commercial customers who might install EV charging infrastructure at their sites. To do that, we can begin by listening to their needs and concerns through **in-depth qualitative research**.

There are a number of actors who may be interviewed in this stage, from EV owners who might seek out charging, to facilities managers, to business owners. Additionally, it can be valuable to speak with external stakeholders who require that the EVSE program meet particular success metrics.

In this stage, the design team will likely identify an important finding: that the program must be designed to serve two EVSE installer constituencies—those who want to earn a profit from charging stations and those who want to enhance the experience of their customers and/or constituents by providing the service.

Empowered with this knowledge, the designers can move to develop two program concepts, each meeting the needs of the two EVSE installer constituents.

Step 2: Concept Development

Once the team understands the needs and concerns of the individuals who might want to access the EV charging stations or might want to be involved in their installation and site oversight, Utility X's program design team can integrate these findings into a product and go-to-market strategy that meets their customers' needs while supporting Utility X in meeting its goals.

Given that our research identified a wide range of motivations to installing EV chargers, the Utility X team can develop two different program model prototypes to support EV charging infrastructure: one that maximizes revenue, and another that maximizes customer experience.

BUSINESS MOTIVATIONS FOR FAST CHARGING HOSTS

Revenue model:

- Expectation of pay-to-charge
- Streamlined implementation to minimize costs
- No frills design, little investment in aesthetics
- Minimal investment in customer experience
- Higher initial investment to maximize returns
- Placed in a high traffic parking area, not focused on being a display item

Customer Experience model:

- Expectation of free charging or low-cost charging rates
- Opportunity for a leasing model where vendor or utility covers maintenance costs
- Placed in an area where it is on display
- Integrate with other amenities (e.g. park, food court, urban farms)
- Aesthetics are primary – chargers can be designed differently to mimic the architecture of the space
- Work with urban planners to develop green space, benches, shade trees, etcetera
- Pair with information about clean energy benefits as well as benefits to EV customers

Step 3: Cocreate and Iterate

Once the team has developed the prototypes of the revenue and customer service models (described above), its time to test them with those most impacted by the design. The team and Utility X can use this feedback loop to return to potential participants and conduct more research.

a. Reach out to the previous research participants:

The team can start by reaching out to the participants (or a subset of participants) from the initial round of research to get their perspective on the prototype designs. This act of “closing the loop” ensures that community members and other stakeholders feel included in the whole process, rather than feel like they are a part of an extractive or exploitative model.

The project team integrates feedback from the previous participants to refine the prototypes.

b. Start small:

Next, the team expands input to individuals beyond those already involved in the design. The team can begin small by working within networks of “friendly” contacts (e.g. friends and family of utility employees, trade allies and others connected to the utility) and gather feedback from this small group to identify initial learnings, explore how the concepts resonate more broadly, and integrate them before a broader rollout.

c. Pilot the design:

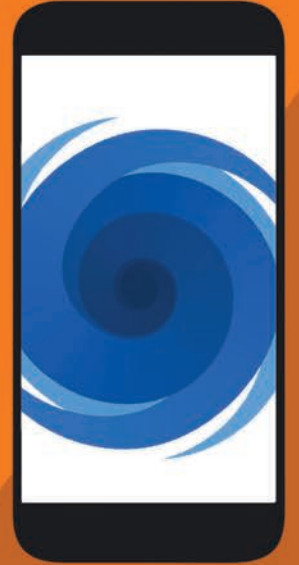
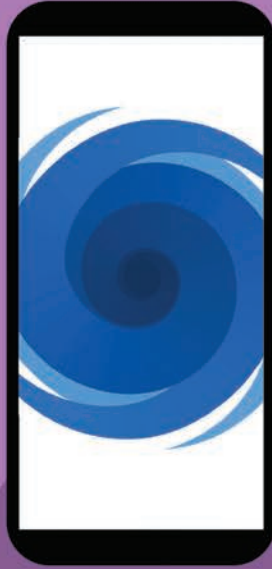
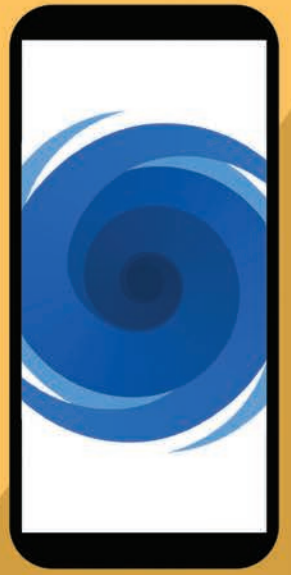
Utility X moves forward with a pilot in a limited set of places/communities. The pilot design includes research activities throughout the process to ensure that commercial customers, their employees or tenants, as well as members of the public have the opportunity to provide feedback on the experience.

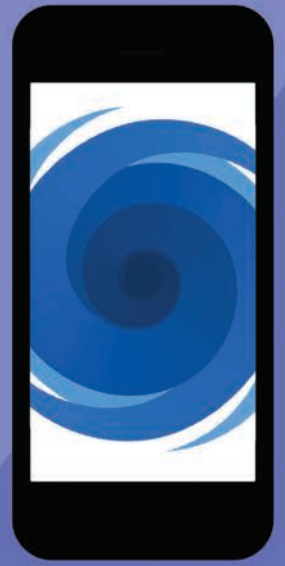
With the results of the pilot in hand, the program team iterates and refines a final time before launching a full program as part of their portfolio.

STEP 4: LAUNCH (Introduce a Program)

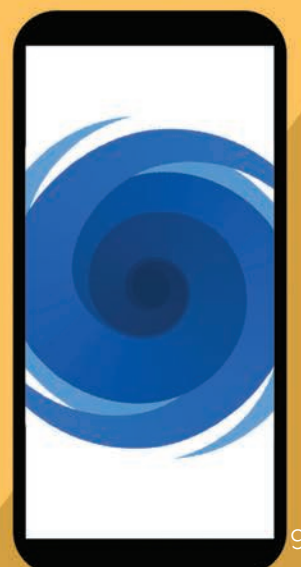
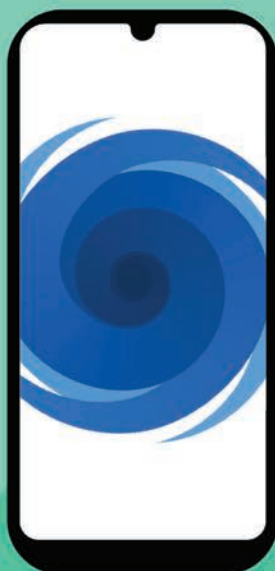
Through this co-design process, stakeholders have multiple opportunities to share their experiences and provide input and feedback as initial concepts are vetted and tested.

Utility X now has sufficient input to develop an offering that includes program designs tailored to meet the various needs and concerns of commercial customers exploring EV charging station installations.





HUNKER DOWN
A TWEETSTORM IS COMING

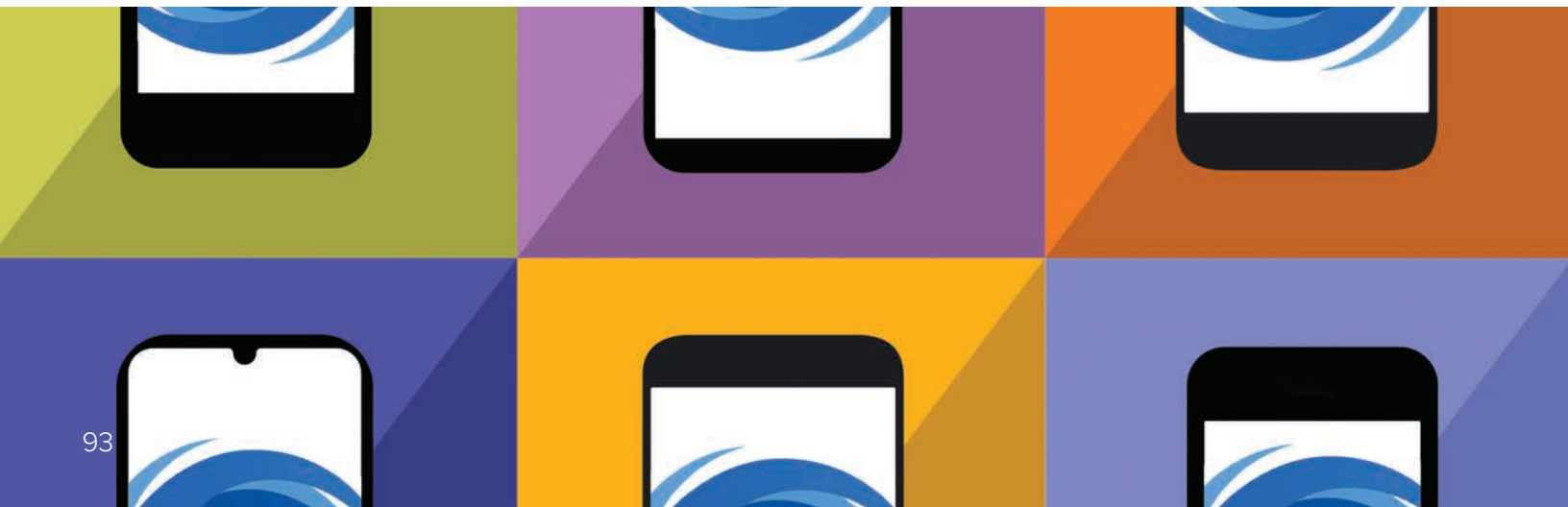


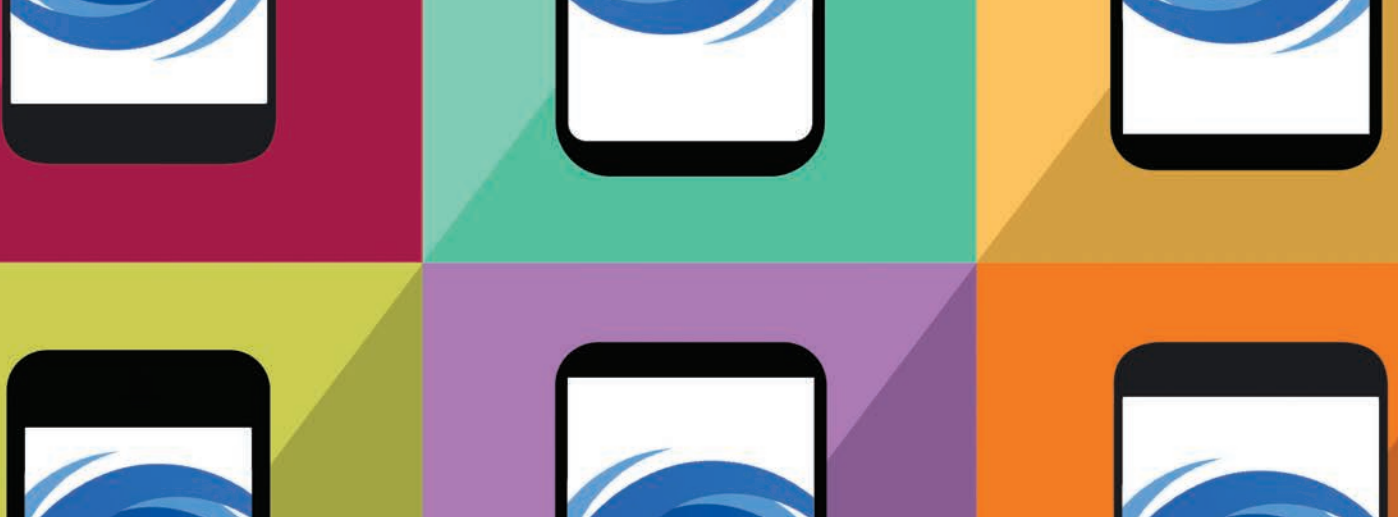
CITIZENS HAVE ALWAYS VOTED WITH THEIR VOICES AND THEIR WALLETS.

AND IN TODAY'S SOCIAL MEDIA ENVIRONMENT, THEY HAVE MORE CONTROL THAN EVER.

Citizens are deploying social media to exercise control and make demands of businesses where they have historically had little to no agency. Through the one-two punch of social media activism and classical boycotting, customers are making it clear where they do and do not align with company values and behaviors. Large organizations, now more than ever, are being taken to task by the customers they serve. And not just on the quality of their services. For example, in Belarus, tens of thousands of families are boycotting state controlled sectors of the economy, including refusing to pay for utility services, after the crackdown on protests following the fraudulent election of President Lukashenko.¹ Facebook, Instagram, Twitter, and Telegram became the rallying spaces for protesters and opposition supporters in the months following the election.²

Vertically integrated utilities or large state agencies may take comfort in thinking they are exempt from this social pressure; however, satisfaction ratings and overall success depend on how well they manage customers' expectations of their brands. Utilities are no longer insulated from the traditional supply and demand model. For the first time in history, customers can exit this model through distributed energy resources (DERs) and innovative electricity delivery models such as community solar, personal solar + storage, or retail choice. Social media activism is literally giving voice to a new generation of consumers who are focused on bringing utilities and other large companies into conversation with them, however reluctantly. In this moment of distributed voices and distributed power, no organization is immune to customer defection.





Customers are speaking. We should listen.

In the last decade, social media activism has become a legitimate vehicle for customer demands.³ Utilities are seeing more customers speaking up about the utilities' role in climate change and (in)action to reduce greenhouse gas emissions. Customers want to be heard and feel empowered to be a part of positive change and, as such, are increasingly turning to social media activism via blogging, online organizing, or using Facebook Live, Twitter, or other apps to document injustice in real time.

Citizens and governments have long used economic mechanisms to correct social wrongs. Calls on social media to boycott organizations are the modern-day equivalents of the Montgomery Bus Boycott. In a 2019 Vox article, Anne Charity Hudley, professor of linguistics at the University of California Santa Barbara said, "If you don't have the ability to stop something through political means, what you can do is refuse to participate."⁴ The public may not have the ability to change systemic issues, but they can organize and create backlash to bring attention to a problem.

Activism is at customers' fingertips, just a retweet away.

So, what is unique about today's environment? Your customers can be moved to action by a single tweet and thousands (if not millions) can join in solidarity within hours. Social media has allowed disparate people to come together over common ideas, lessening geographic, economic, and racial barriers in trying to make change.

In the United States, Occupy Wall Street, #MeToo, Time's Up, and the Black Lives Matter movements have shown the power of social media activism as an engine to drive societal and policy change.

Digital natives are your future.

Within this new dynamic, utilities need to consider the "Digitally Native" people who are starting to make up a larger portion of ratepayers. This new ratepayer base, Generation Z (those born between 1996 - 2010), is the largest generation in American history, is more vocal, and has different values than earlier groups. Young people are very concerned about climate change and know how to use social media activism adeptly.^{5,6} A recent Pew study on Twitter demographics found that its users are younger and more liberal than the U.S. population. The same study also found that only 10% of Twitter users create 80% of tweets.⁷ And, on Twitter, one tweet can have extreme reach and impact. This means that there are Twitter power users who can quickly drive the conversation and drum up support for an idea that can spark broader social change.

As young people continue to use Twitter and participate in the current utility structure, there is an opportunity for the vocal few to speak out against their utility. To get ahead of this, utilities can use their social media presence and inherent name recognition to engage with these customers on their turf. True listening means giving constituents a voice and empowering them as partners in decision making.

Dialogue is tweetstorm insurance.

When constituents speak out through formal proceedings, or when utility customers express opinions about an offering online, there is an opportunity for dialogue. But how? In her influential work, “A Ladder of Citizen Participation,” Sherry Arnstein creates a model to describe the ways constituents can participate in government and how governments can facilitate collaborative governance.⁸ For utilities and program administrators, this serves as a useful model for engaging the public around key initiatives and proceedings.

At the bottom of the ladder is non-participation: These are constituents (think: customers/ratepayers) who have no voice or say in decision making. As you move up the ladder, participants are not only listened to but play an active role in policy.

Creating this active space allows for people to feel represented. Moving people up the ladder is difficult and nuanced, but it starts by listening, especially since marginalized communities are muted in most aspects of our society.

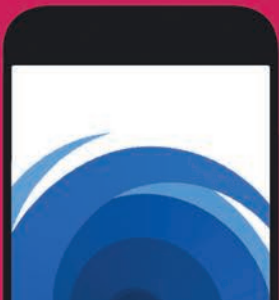
Twitter, and other forms of social media, are venues where marginalized communities can congregate and exercise their right to speak and be heard. Using this space, and allowing these communities to speak in their language, gives them a voice where they have historically been silenced.

As Arnstein says, “In organizations, ‘nobodies’ in several arenas are trying to become ‘somebodies’ with enough power to make the target institutions responsive to their views, aspirations, and needs.” And these somebodies are taking to social media to demand action, which is why it is more important than ever to engage in dialogue with this new generation of utility customers.

The outsized influence of a viral tweet.

ILLUME recently conducted a sentiment analysis on a southern utility’s Twitter accounts. We found that tweets about utilities were more negative than tweets about solar power; we also found that one viral tweet pulled the overall sentiment score down significantly. Without that tweet in the analysis, the sentiment score was positive.

This illustrates the substantial impact of one tweet. PSMag recently found that Twitter users were more likely to believe a tweet that had more retweets.⁹ The negative tweet in our analysis, while just one tweet, may have had broader influence, given its viral status, than all other non-viral utility tweets of 2019.



WANT TO RESPOND TO
YOUR CUSTOMERS BUT NOT
SURE HOW TO LISTEN?

HERE IS HOW TO PUT YOUR
EAR TO THE GROUND.

“ QUANTITATIVE SOCIAL
LISTENING PROVIDES UTILITIES
AND COMPANIES WITH DIRECT
INFORMATION ON WHAT
THEIR CUSTOMERS ARE
SAYING.”

Steps to Conducting a Sentiment Analysis

- 1 Gather resources and customer feedback. We can use tweets from, about, and related to a utility or topic of interest. We have also used news articles and releases about the utility to explore how a utility is seen from different lenses.
- 2 Clean data and prepare it for analysis using standard text cleaning procedures.
- 3 Conduct sentiment analyses to understand general feelings about the utility. Compare different sources and sentiments across time while highlighting different events, and find common themes across mediums.
- 4 Provide insight into what customers are looking for and how they view their utility. This social listening allows utilities to systematically address customer concerns and map them with major events.

ARNSTEIN'S LADDER: A STEP-BY-STEP GUIDE

Arnstein's Ladder provides a sequential framework to understand citizen participation and build relationships that are imbued with respect. The eight steps of the ladder are grouped into three sections that outline a developmental process of engagement from **non-participation, to tokenism, to citizen control**.¹⁰ Moving people up the ladder is difficult and nuanced, but it starts by listening, especially since marginalized communities are muted in most aspects of our society.

Non-participation

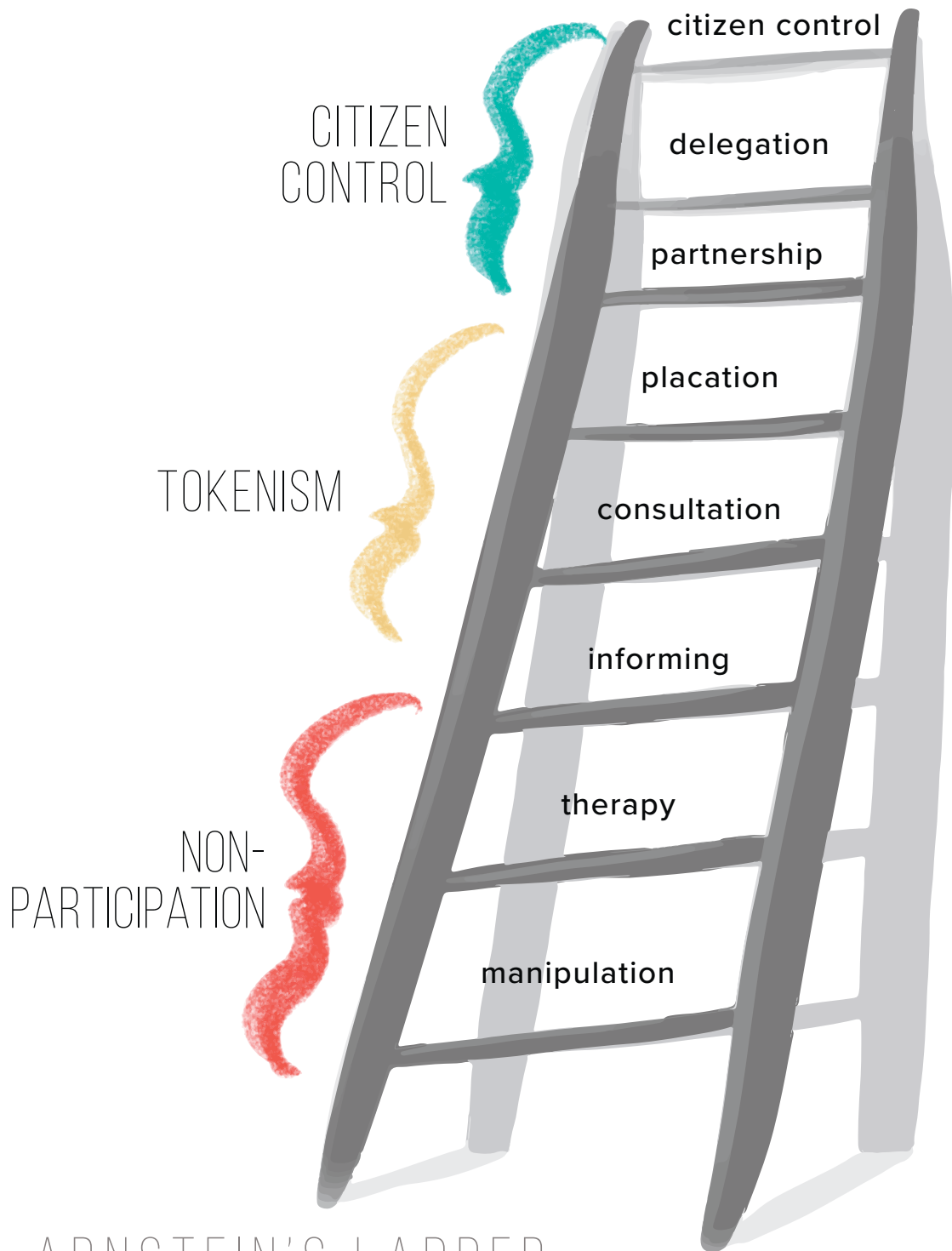
The bottom of the ladder indicates that people have a long climb ahead. **Manipulation** implies a relationship with citizens that misleads them into believing they have agency; interactions are reduced to rubberstamping, or worse. **Therapy** refers to a phase of engagement in which citizens or stakeholder are compared to patients who need to be cured of a pathology. Instead of listening, community members are convinced that their needs are invalid.

Tokenism

This section of the ladder does not afford much elevation to get a better view. **Informing** is a key part of citizen engagement, yet this step ascribes one-way participation, with no opportunity for individuals to provide feedback. **Consultation** goes one step further, gathering citizen needs via surveys or stakeholder meetings, for example, but engagement is based on surface-level tasks (number of attendees at a meeting, number of survey responses). **Placation** implies the limited ability to influence a process leading to a perception of influence, misleading communities that they have agency.

Citizen Control

Citizen engagement comes into full view as you reach the top. **Partnership** is when systems fulfill the promise of citizen participation through power-sharing and shared decision making. (Think joint policy boards, planning committees and other bodies with processes to ultimately resolve an impasse). **Delegated Power** allows citizens or stakeholders to not only have a say in a process, but drive it in a somewhat meaningful way. Finally, **Citizen Control** is when citizens have full authority to manage policies or govern institutions. Providing access to public funds for community organizations with control over their allocation is one example of this.



ARNSTEIN'S LADDER

UTILITY SPOTLIGHT

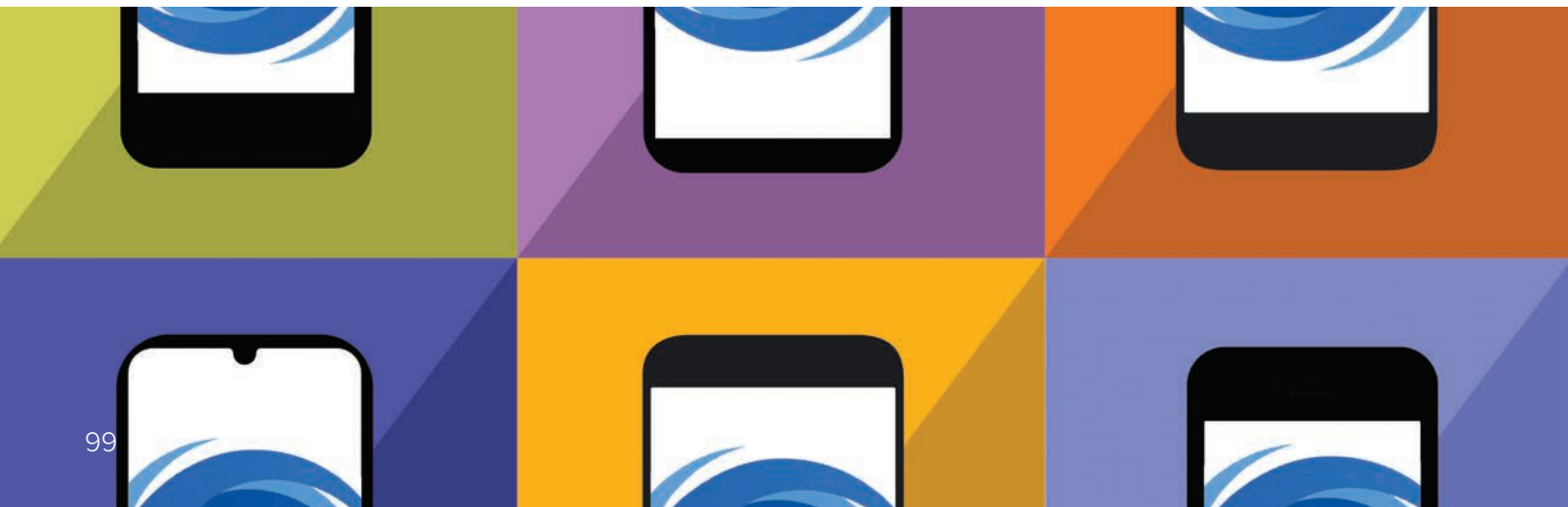
Xcel Energy, Tucson Electric Power (TEP), and Consumers Energy have listened to their customers and have treated them as partners (moving up on Arnstein's Ladder).

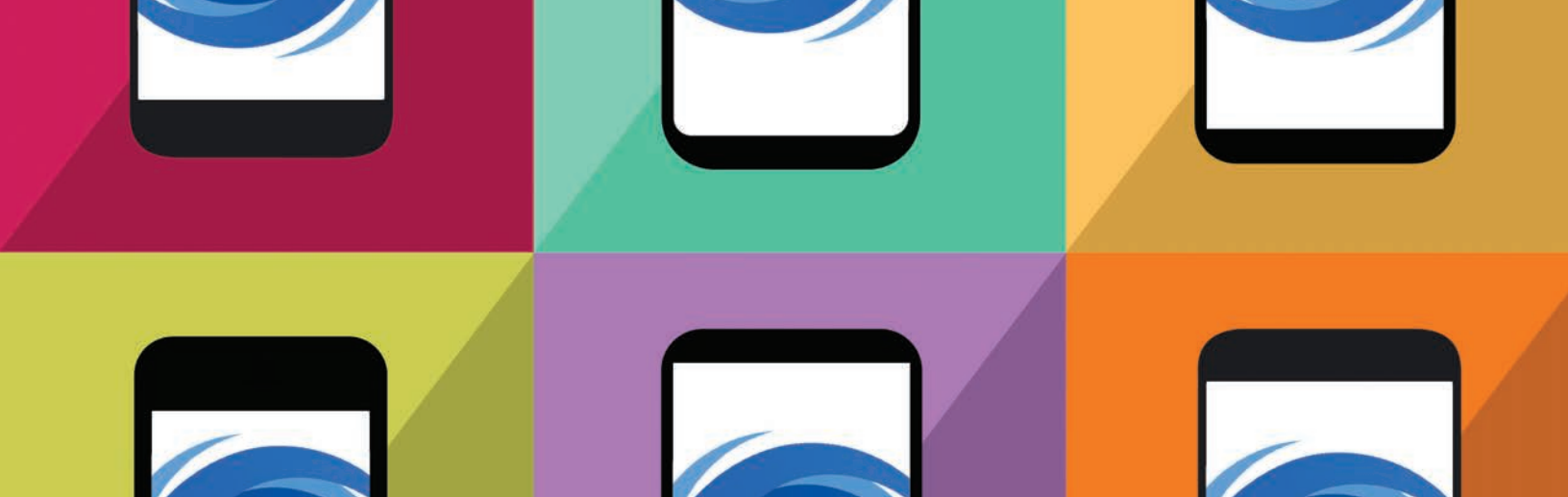
CONSUMERS ENERGY

The former CEO of Consumers Energy, Patti Poppe, launched a statewide tour to speak with Michiganders about how the utility could help the state reach an aggressive goal of 90% carbon reduction by 2040. Poppe said, "We're excited to connect with people across Michigan and help them understand the clear and meaningful role they play in Michigan's clean energy future."¹¹

LEARNINGS

This grassroots approach to customer interaction highlights the importance of communication between corporate leaders and customers. How often do we citizens get a chance to speak with those at the top of the hierarchy? This plan allows the utility to hear their customers and humanize their needs. The takeaway here is to think of novel ways to interact with customers beyond a monthly bill.





XCEL ENERGY

Xcel customers in Colorado expressed frustration with their utility regarding carbon emissions and renewable sources. Municipalities were not only asking for renewable portfolios; cities like Boulder, Denver, Breckenridge, and Pueblo were creating their own means to become 100% renewable. So, Xcel listened. When discussing Xcel's decision to use 100% clean power by 2030, CEO Ben Fowke said, "When your customers are asking for this over and over you really do listen."¹²

LEARNINGS

While many factors played into Xcel's ability to shift to clean power, this is a striking example of a utility making an expensive decision partially based on their customers' concerns. Xcel listened and changed. They are now considered a leader as more and more utilities are following in their steps and making clean energy commitments.

TUCSON ELECTRIC POWER

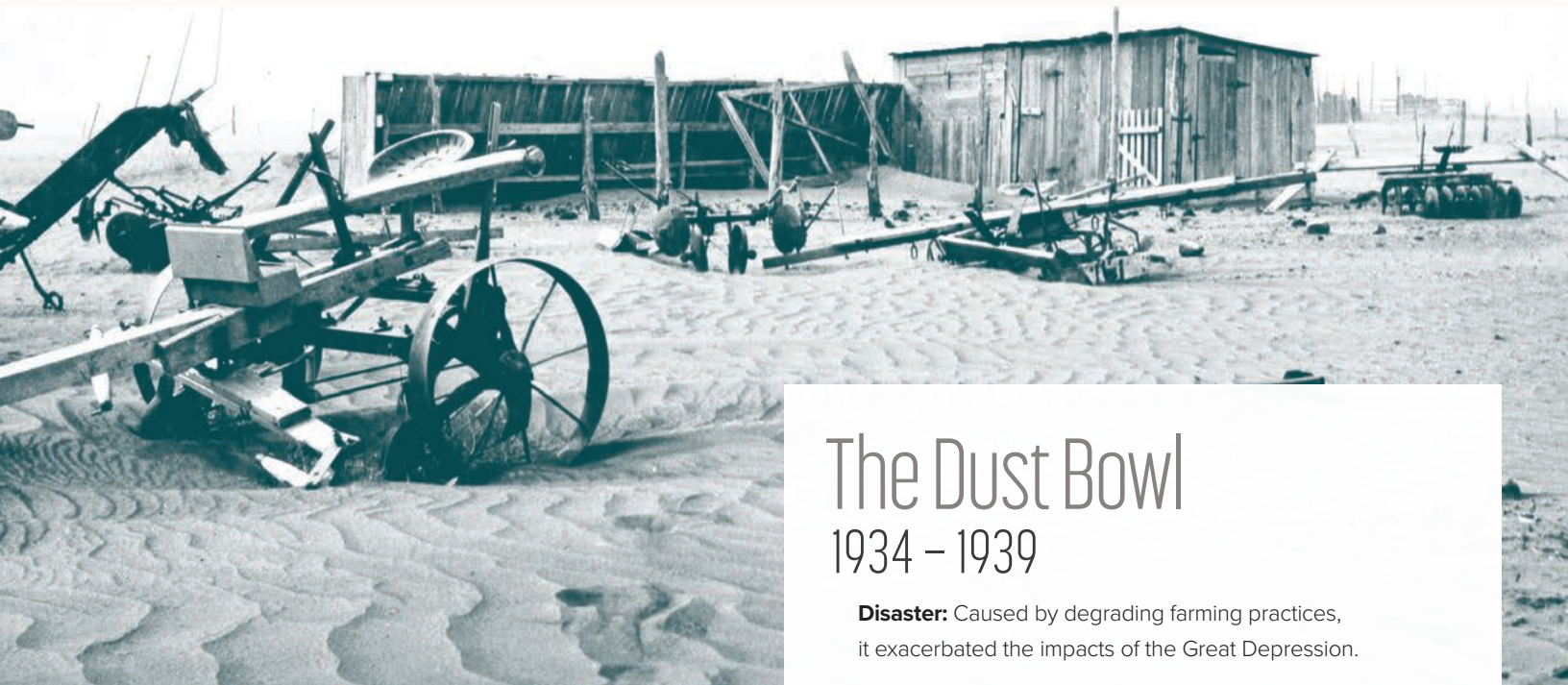
Recently, TEP faced backlash from ratepayer advocacy groups and environmental organizations for their reliance on fossil fuel heavy generation sources and resistance to renewables. But before finalizing their most recent Integrated Resource Plan (IRP), TEP hired scientists from the University of Arizona to find the best and most feasible decarbonization goals for the utility. Using this study and public submissions from the Sierra Club, county officials, and other advocacy groups, TEP filed an IRP with a goal of providing 70% of their power from renewable sources by 2035 and a commitment to reducing carbon emissions by 80%.¹³

LEARNINGS

TEP listened to their customers and made their IRP more progressive. A key takeaway here is the use of local and third-party stakeholders to research the customer requests. TEP did not assume that they had the best answers. They wanted to ensure paths toward clean energy were feasible and cost-effective. By hiring University of Arizona researchers, TEP infused money into the local economy, got the data they needed to move forward confidently, and validated customer requests and concerns.

Disaster As Catalyst

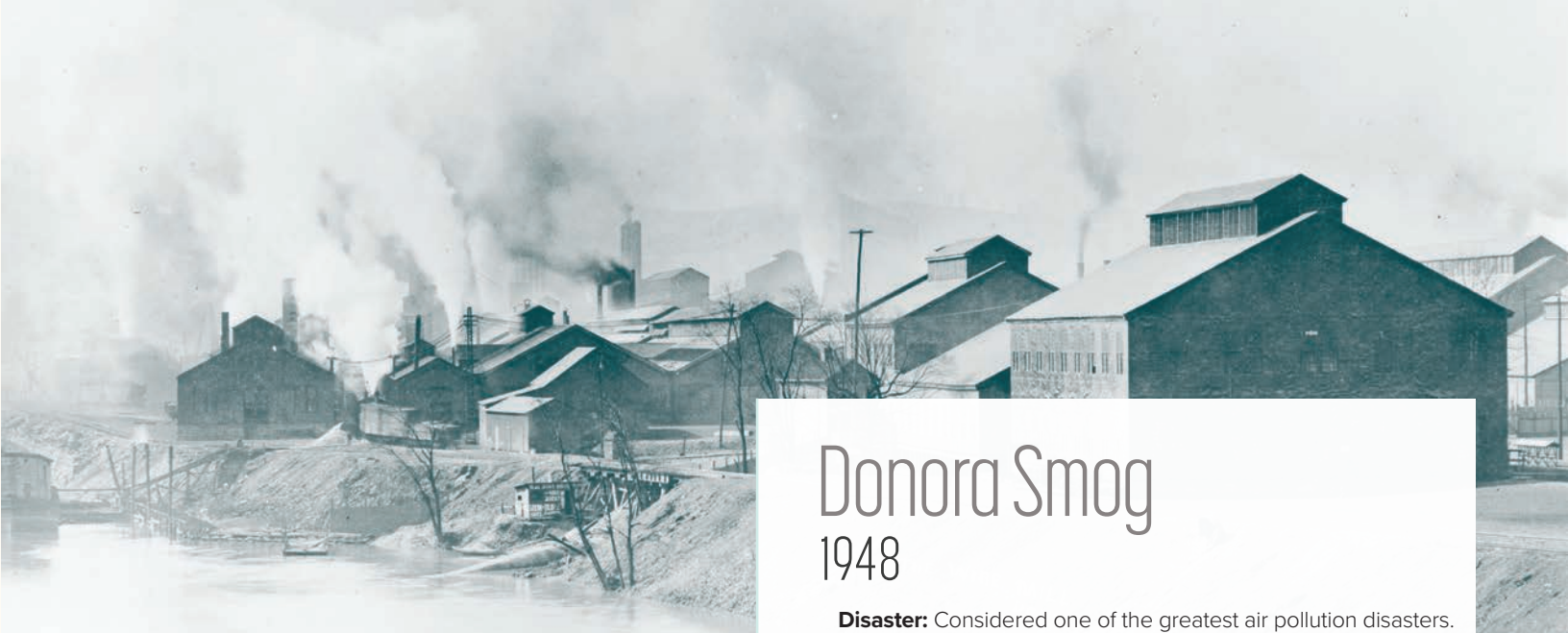
The year 2020 has been marked by disasters. Australia caught fire, coronavirus has killed hundreds of thousands, shut down the economy, and kept us home scared, and instances of police brutality have roiled our towns and cities and called greater attention to the deep racial inequities in our society. Let's reflect back on another set of crises—environmental disasters—and the major changes in national law and policy that followed. Moments of great disruption are often moments where great change is possible.



The Dust Bowl 1934 – 1939

Disaster: Caused by degrading farming practices, it exacerbated the impacts of the Great Depression.

Upside: Greatly expanded government participation in land management and soil conservation through multiple New Deal acts and initiatives.



Cuyahoga River Fire 1969

Disaster: The river blaze in Cleveland got national attention in 1969 but was actually one of many times oil slicks on the river caught fire since 1868.

Upside: A contributing factor to the establishment of the Environmental Protection Agency and the Clean Water Act in 1972.

Energy Crisis 1973 – 1979

Disaster: The price of oil skyrocketed due to decreases in supply brought on by the Yom Kippur War and the Iranian Revolution.

Upside: Led to the Public Utility Regulatory Policy Act (PURPA) in 1978 that created a market for non-utility power producers and paved the way for renewable energy.

Donora Smog 1948

Disaster: Considered one of the greatest air pollution disasters. The smog, caused by environmental factors combined with zinc smelting, killed 70 and sickened 7,000.

Upside: Helped trigger the clean-air movement that led to the Clean Air Act of 1963.

DDT Poisoning 1973

Disaster: Documented in Rachel Carson's *Silent Spring*, DDT poisoning led to the loss of birds of prey including bald eagles.

Upside: Outcry about the plight of bald eagles contributed to the passing of the Endangered Species Act, considered among the strongest US environmental laws.

Love Canal 1978

Disaster: Hundreds of Niagara Falls, New York residents fell ill due to companies dumping toxic chemicals over decades.

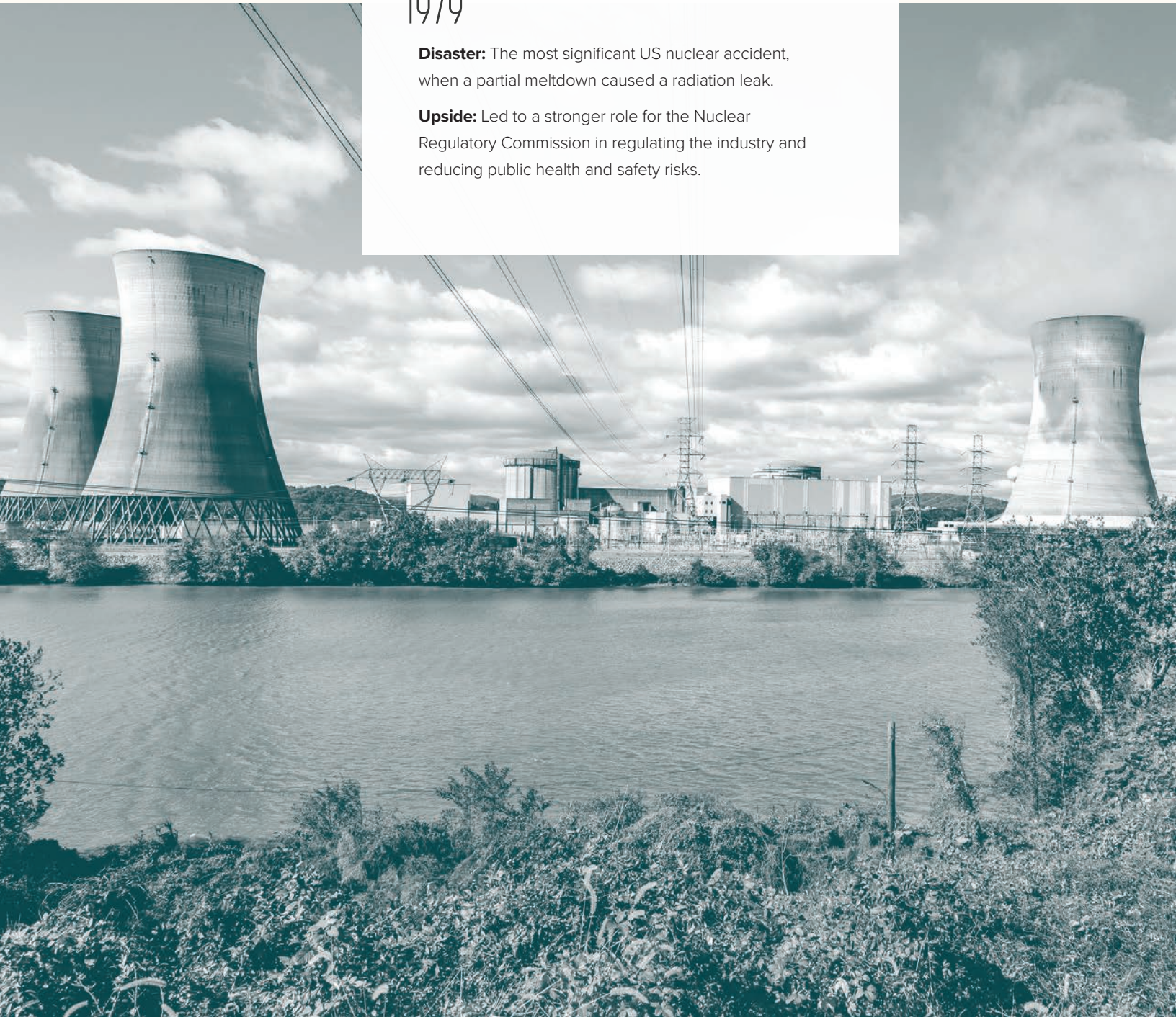
Upside: Led to the Superfund law to designate and clean up toxic sites all over the country.

Three Mile Island

1979

Disaster: The most significant US nuclear accident, when a partial meltdown caused a radiation leak.

Upside: Led to a stronger role for the Nuclear Regulatory Commission in regulating the industry and reducing public health and safety risks.





Ozone Layer Hole

1985

Disaster: Caused by manufactured chemicals, depleted ozone increases cancer and other health risks.

Upside: Led to the Montreal Protocol which phased out and banned chemicals such as CFCs.

Deepwater Horizon Oil Spill

2010

Disaster: Industrial disaster in the Gulf of Mexico, it was the largest marine oil spill in history.

Upside: Led President Obama to issue an executive order establishing the National Ocean Council to work on conservation and resource management (revoked by President Trump in 2018).

Climate Change

2016

Disaster: Though a slow-moving crisis, climate change is causing devastating impacts such as extreme heat, coral bleaching, and deadlier and more frequent natural disasters. Africa is anticipated to be among the hardest hit continents where countries are already experiencing extreme drought, dust storms, flooding, and landslides attributed to climate change.

Upside: In 2016, countries around the world signed the Paris Agreement to address greenhouse-gas emissions mitigation, adaptation, and finance. US cities and municipalities have taken on aggressive climate goals, and now expect the Biden administration to re-join the agreement in 2021. Combating the climate crisis will require individual, state, federal, and international action for decades to come.

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“ Power rests in all of us
and when we operate as
a collective, that’s when
we are most powerful. ”

— *Dr. Robert Bullard*

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