

Energy efficiency program strategies to help struggling customers recover

By Gene Rodrigues, Michael Mernick, ICF

The changes in EE program scope and utility role required to address the events of 2020—and those to come—are fundamental and transformational in nature. How should utilities evolve their programs to meet the challenges of the moment...and set the stage for future success?

2020: A punch in the mouth

Noted philosopher and pugilist Mike Tyson reportedly once said, "Everybody has a plan until they get punched in the mouth." If there were one quote that perfectly encapsulates the impact of the COVID-19 pandemic on utility energy efficiency (EE) programs across the country, that would be it. More to the point, if there were a more apt description of the disruption and damage the pandemic has wrought upon people in every corner of our country, we'd like to hear it.



Consider this: The Bureau of Economic Analysis reported that the U.S. economy shrank by 3.5% in 2020 as COVID upended U.S. households and businesses. This made 2020 the worst year for economic growth since 1946, when the transition to a peacetime economy turned off the tap of wartime spending.² As eye-opening as that statistic is, it still does not fully convey the impact of the COVID-damaged economy on your customers. By June of 2020, the magnitude of COVID-19's deleterious effects on the U.S. economy were settling in and the Pew Research Center observed that unemployment rose higher during three months of 2020 than it did during two full years of the Great Recession.³ During that same period, the Brookings Institution cited U.S. Census Bureau data to report that more than 16% of households with children reported that their children were sometimes or often "not eating enough because we couldn't afford enough food."4

While we currently see hopeful signs that our country is making substantial progress in responding to COVID-19, the economic downturn the pandemic has caused to date will not dissipate quickly or completely. In its most recent Employment Situation Report, the U.S. Bureau of Labor Statistics reported that the unemployment rate remains at 6.1%⁵. So, while the pandemic has not affected every one of your customers in the same way, a very large—and still growing—segment of your customer base is currently struggling with unprecedented and unanticipated economic strife. To better meet the needs of those affected customers, you must make changes to the way your EE programs serve them now and in the future.

In this paper, we propose a three-phase strategy for assisting the COVID-impacted segment within your service territory: First, we examine adaptation strategies that EE program administrators are currently employing to meet their regulatory goals despite the impacts of a COVID-damaged economy. Second, we offer a "no regrets" customer targeting initiative for your EE programs—including your income-qualified programs—to better align your EE efforts with the immediate needs of your utility's most vulnerable customers. Third, we recommend that you undertake a thorough re-examination of your programs in light of the newly emerging set of threats and opportunities before you.

⁵ US Bureau of Labor Statistics, "Employment Situation Summary" – April 2021, p.1. (published May 7, 2021)



¹ Rachel Siegel, Andrew Van Dam, and Erica Warner, "2020 was the worst year for economic growth since World War II," The Washington Post, January 28, 2021, p.1. (Citing Bureau of Economic Analysis data).

³ Rakesh Kochhar, "Unemployment rose higher in three months of COVID-19 than it did in two years of the Great Recession," Fact Tank, Pew Research Center, June 11, 2020, p.1.

⁴ Lauren Bauer, "About 14 million children in the US are not getting enough to eat," Brookings Institution, July 9, 2020, p.1. (Citing US Census Bureau data).

Phase One: The practical necessity of a regulatory compliance strategy

Table stakes for any utility-offered EE program—no matter what the jurisdiction—is the achievement of your program/portfolio goals and targets. Today's EE programs are designed with resource acquisition metrics primarily in mind. So, for an investor-owned utility, the regulator approves and authorizes your program designs and budgets largely based upon satisfaction of cost-effectiveness tests and the promise of delivered energy savings and demand reduction at levels that justify the ratepayers' investment in your programs. As a result, failing to deliver those promised savings may subject your utility to reasonableness reviews, disallowed program expense, or even financial penalties. (The same is largely true for municipal utilities, with the exception that municipal utility leadership reports to a different governance structure and the price to be paid for failing to achieve goals is reductions in future budgets or changes in leadership.)

Either way, honoring your end of the regulatory compact is an obligation, not an option. And—COVID or no COVID—you will be expected to have made reasonable efforts (i.e., within the scope of your authorization) to achieve the savings and demand reduction levels that were forecast when authorizing your programs and budgets.

With that in mind, here are five adaptation strategies utilities can employ at different stages along the program journey to help portfolio administrators manage their programs through the COVID-19 disruption. And, to round things out, we also point out one tripwire to keep an eye out for.



Step 1: Target the people who need EE the most instead of the usual suspects

Everything we used to know about how customers will use energy in their homes or place of business has been knocked for a loop. Our homes are now virtual offices for many of us and virtual classrooms for the kids. Places of business (if they are still open) may be operating under occupancy limitations or other COVID-related restrictions that have significantly changed their heretofore steady and predictable energy consumption patterns. And, sadly for a great many people these days, the economic effects of the COVID economy have displaced people from the workforce or placed additional pressure on their pocketbooks and well-being.

These changes to people's lives and to the energy landscape call for us to set aside pre-COVID notions about how energy is being used (and by whom) in favor of updated analytics that identify the natural beneficiaries of your program offerings. Finding people and businesses who have an increased propensity to participate in your programs will help you backfill for participation shortfalls from those customers for whom you originally designed your program portfolio. More importantly, targeting people and businesses who need EE the most right now (as discussed in the second half of this paper) will increase the value your programs create for your customers and your utility.



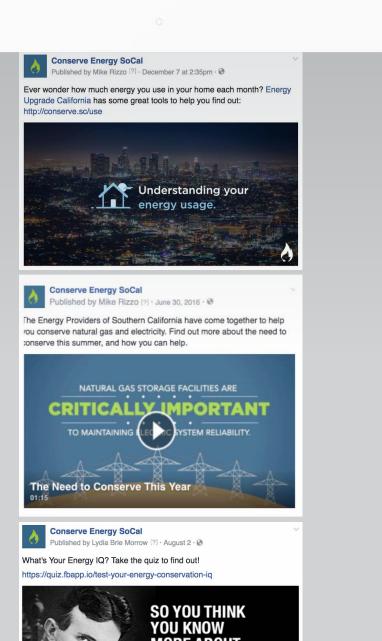


Step 2: Use digital outreach instead of knocking on doors

Regardless of where you live or the status of the COVID vaccination effort in your service territory, the plain fact is that it will be harder and harder to get through the threshold of homes and businesses to engage, sign up, and treat your customers' facilities and equipment. And this is not just a COVID-related effect. The Pew Research Center recently reported that, since 2005, the percentage of American adults who have used at least one social media platform has risen from 5% to 72%. Simply put, social media outreach, engagement, and communication is a must-have strategy for your program portfolio these days. And the good news is that social media-based outreach is both an effective and cost-effective addition to (or, sometimes, substitute for) traditional outreach techniques.

Campaign goals:

- Raise awareness of the need to conserve energy and the interdependency of natural gas & electricity.
- 2. Raise awareness of how to conserve energy.
- 3. Drive energy conservation activities.





⁶ Pew Research Center – Internet & Technology, "Social Media Fact Sheet", April 7, 2021, p.2.



Step 3: Activate what's already there instead of only focusing on what's not

If you need to grow savings right away to replace savings from underperforming COVID-impacted programs, you should look to till the soil you have within your current fence line, not look to faraway pastures. In EE program terms, the fields within your fence line are the people and devices already in place and waiting to be engaged. Consider animating people-driven savings through behavioral programs, activating latent energy savings capabilities of existing devices through BYOD programs, and breathing new life into existing rebate programs through incentive optimization.



Step 4: Sell through e-commerce instead of bricks and mortar

When we look back one day on all that 2020 brought us—good and bad—one transformational impact that is sure to stand out is that 2020 ushered in widescale awareness and mainstream acceptance of delivery services, from DoorDash to Grubhub to Postmates to Uber Eats for food, and Amazon for absolutely everything else.

E-commerce marketplaces are no longer reserved solely for the tech-savvy segment of your customer base. Utilities across the country are using web-based marketplaces to serve their customers; they belong within your program strategies too.



Step 5: Think "set it and forget it" instead of continuous commissioning

While continuous commissioning programs should still have a place in your portfolio, it's crucial to embrace the value of high simplicity/low maintenance strategies for recovering savings during the low direct engagement period of the COVID-impacted era. There will be plenty of time to return to high touch/continuous engagement strategies later. If you are currently behind on meeting your regulatory goals for your programs, you need to implement straightforward, uncomplicated strategies and tactics for backfilling unrealized savings from your portfolio.





Step 6: Beware of the baseline tripwire

Beware the tripwire...

If program evaluation considerations are left unaddressed and unmanaged in the near-term, you are exposing yourself to a significant after-the-fact risk of being unable to identify, measure, and claim the savings you need to justify your EE programs and budgets.

Having now provided you with five strategies for successfully adapting your programs for COVID-related impacts on the EE market, we will now turn our attention to one potential tripwire to bear in mind.

As we noted at the outset of this paper, everything we knew about traditional energy consumption patterns has been turned inside out by the societal and economic disruption that has been brought on by the COVID-19 pandemic. This means that the set of assumptions you had relied upon when setting up program evaluation schemes may work against you, if left unexamined and unchanged. Case in point: Comparing pre-COVID baselines to COVID-impacted era results is going to be less certain at best and, at worst, misleading to the point of irrelevance. If program evaluation considerations are left unaddressed and unmanaged in the near-term, you are exposing yourself to a significant after-the-fact risk of being unable to identify, measure, and claim the savings you need to justify your EE programs and budgets. This, in turn, introduces counterproductive uncertainty into your ability to get the future program and budget approvals you need to serve your customers well in the years to come.

Moreover, if you are one of the utilities who has adopted pay-for-performance compensation mechanisms for use with implementation contractors and trade allies who deliver your programs, good faith and fair dealing requires you to explicitly address the impact on COVID-related measurement uncertainty now, before the end of the performance period. This sort of square dealing has been the cornerstone of utility program administration and has provided a sound foundation for the growth of EE across North America through the years. That is why the Consortium for Energy Efficiency's most recently published annual industry report is able to show that North American ratepayer-funded EE program spending remains steady at \$8.9 billion.⁷

The bottom line? COVID-19 effects can impact program evaluation as well as program implementation. If you have not done so already, right here/right now is the time and place to consider how to "COVID proof" every aspect of your EE programs.



⁷ Consortium for Energy Efficiency. "State of the Efficiency Program Industry: Budgets, Expenditures, and Impacts 2019", p.4. http://www.cee1.org/annualindustry-reports, posted July 2020. © Copyright 2020 Consortium for Energy Efficiency. All rights reserved.



COVID-19's impact on utility customer arrearages in Massachusetts:

Over 40%

arrearage increase for utility residential (nonlow income) and small commercial customers from 2019 to 2020

17%

arrearage increase for residential lowincome customers

46%

increase owed in arrears for small commercial customers

70%

increase owed in arrears for low-income residential customers

86%

increase owed in arrears for residential customers

Phase Two: Use utility payment data to target assistance for at-risk customers

At this moment in time, your utility's senior leadership, your policymakers and regulators, and your jurisdiction's stakeholder groups are more willing than ever to join forces in support of a straightforward targeting strategy that allows you to focus additional attention and resources on those customers who are struggling to pay their utility bills. What's more, alignment on this issue is likely strong enough to also provide you with the flexibility required to secure whatever accommodations are needed in currently adopted goals, targets, and milestones to allow you to pursue this customer assistance initiative.

First, let's review the situation. As noted at the start of this paper, 2020 ended with the lowest U.S. economic growth in 75 years⁸ and the highest unemployment level since the Great Recession.⁹ All of this is reflected in the sharply growing number of utility customers across the country who have fallen behind in their utility payments.

To fully comprehend the magnitude of this problem, let's look at Massachusetts by way of example. In its February 2021 report on COVID-19's impact on utility customer arrearages, the National Consumer Law Center found that the percentage of Massachusetts utility residential (non-low income) and small commercial customers in arrearage increased by over 40% from 2019 to 2020, and residential low-income customers in arrearage increased by 17%. To make matters worse, the total amount in arrears spiked significantly as well. For those same Massachusetts customers, the average amount owed in arrears increased by 46% for small commercial customers, 70% for low-income residential customers, and a staggering 86% for residential customers.

Policymakers and regulators across the country took note of similar trends in their own states and many put utility service shut-off moratoriums into effect, along with other customer protection measures. However necessary and well-intended these moratoriums were, by their very nature they only provide stopgap relief.

An example of the temporary relief provided by service shut-off moratoriums is playing out in California right now. Responding to the same trends discussed above, the California Public Utilities Commission (CPUC) originally ordered the electric and natural gas utilities under its jurisdiction to suspend service disconnections due to non-payment for residential and commercial customers until April 16 of this year.



⁸ Rachel Siegel, Andrew Van Dam, and Erica Warner, "2020 was the worst year for economic growth since World War II," The Washington Post, January 28, 2021, p.1. (Citing Bureau of Economic Analysis data).

⁹ Rakesh Kochhar, "Unemployment rose higher in three months of COVID-19 than it did in two years of the Great Recession," Fact Tank, Pew Research Center, June 11, 2020, p.1.

¹⁰ Anna Kowanko and Charlie Harak, "COVID-Driven Utility Arrearages – Implications for Policy in Massachusetts and the Nation," *National Consumer Law Center*, February 2021, p.12.

¹¹ Ibid at p.11.



Then, after learning that there had been a dramatic increase in customers with unpaid bills in excess of \$500 (accompanied by an increase in enrollments for the utilities' low-income EE programs) over the course of 2020, the CPUC extended the moratorium to June 30. In the meantime, however, customer payment arrearages continue to mount and, once the moratorium does expire, the customer will be facing a daunting and disheartening payment obligation, now accompanied by the potential for a service disconnection. On the utility side, after the moratorium expires, the California investor-owned utilities will face a no-win scenario of potential write-offs far in excess of what could reasonably have been forecast in the pre-COVID era and the customer service/public relations nightmare of a large—and growing—number of residential and business customers in every community they serve who can't afford to pay for utility service they've already received.

In anticipation of this impact, regulators and utilities in California and around the country are exploring means to address this growing problem of customer arrearages. Arrearage Management Plans and other mechanisms for helping customers to pay down their debt over time are certainly part of the solution. However, we recommend also putting

the First Law of Holes into practice: "If you find yourself in a hole, stop digging."

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We are, of course, not suggesting that customers stop using utility-provided electricity and natural gas as a means of managing their mounting debt, but we are advocating that now is the time for utility leaders, policymakers, regulators, and other stakeholders to be reminded that energy efficiency can and should be employed to help vulnerable customers reduce their energy consumption and manage their goingforward bills. If this means that pre-COVID program designs, savings targets, and cost effectiveness thresholds need to be relaxed to allow the utility's EE programs to provide targeted direct EE assistance to those customers who have accounts in arrears, now is the time to make that case—while the need is great, the opportunity to act is timely, and the various stakeholders are all in alignment that something needs to be done.



Now is the time for utility leaders, policymakers, regulators, and other stakeholders to be reminded that energy efficiency can and should be employed to help vulnerable customers reduce their energy consumption and manage their going-forward bills.

Building on the six-step approach outlined in the first half of this paper, here is how such a program might be designed.

- Step 1: Target the people who need EE the most instead of the usual suspects Your utility's billing and credit department knows which customers are in arrears. Put that information to proactive use by targeting those vulnerable customers for the program.
- Step 2: Use digital outreach instead of knocking on doors Your utility will want to get the word out through digital channels as well as conventional ones. You'll also want to enlist the help of community and faith-based organizations, business associations, and state and local agencies who provide other assistance for your target customers. You are doing a good thing for your customers—don't be shy about letting them know.
- Step 3: Activate what's already there instead of only focusing on what's not A significant part of your measure mix for the program should be taking advantage of what's already in place. Energy education and behavioral programs for residents and employees? Check. Enrolling smart thermostats or other controllable devices in existing programs? Do it.
- Step 4: Sell through e-commerce instead of bricks and mortar Have new measures that you want the customer to install as a DIY project? Deliver it to the customer's doorstep as a kit. Need to have technical expertise to install it? Think direct install. Bottom line? Make participation as frictionless as possible for the customer.
- Step 5: Think "set it and forget it" instead of continuous commissioning

 Whatever the measure bundle, make ongoing participation simple and straightforward for the customer. Having said that, if you have other programs that the customer might benefit from, don't fail to offer them too. Is your newly unemployed customer now income-eligible for low-income rate assistance or EE programs? Sign them up. Do you offer high bill alerts or energy budgeting programs? Make sure the customer knows all the ways you can help.
- Step 6: Beware of the baseline tripwire As discussed above, now is the time to reset regulatory obligations and internal expectations that could keep your utility from doing the right thing for your customers or, worse yet, punish you after the fact. Think things through now to identify what accommodations your utility needs to make the program work and get those necessary agreements made up front, while all stakeholders are on the same page.





Phase Three: A thorough re-examination of your programs

Our Phase One recommendation could be categorized as a necessary coping strategy, and our Phase Two recommendation could be called a program enhancement. Our Phase Three recommendation goes far beyond these first two steps. In this phase, we encourage you to undertake a complete and thorough re-examination of your programs, and do so before someone else does it for—or to?—you.

Let's face facts. The impacts of 2020 have been too profound and too widespread to expect that one day everything will magically go back to the way it was before. This is not just our opinion. It's an observation borne out by the collective experience of utility DSM leaders from around the country.

Spark Labs

It takes ingenuity, creativity, and diverse perspectives to solve truly tough challenges. But it's a difficult concept to enable in a systematic fashion. That's the impetus behind ICF's Spark Labs.

Rooted in design thinking and human-centered design, Spark Labs empowers your teams with new ways to innovate and co-create in a fast-paced, interactive, professionally facilitated workshop aptly called a Lightning Session. This method results in actionable solutions that cut through the clutter of preconceived notions and unchallenged barriers.

ICF recently facilitated a Lightning Session workshop for a diverse group of utility DSM thought leaders. The workshop utilized our proprietary Spark Labs processes and techniques to assist the DSM leaders and a team of ICF subject-matter experts in working together to identify threats and disruptors brought on (or accelerated) by the events of 2020. After identifying threats, the session focused on exploring opportunities to face these challenges head on, for the benefit of the utility's customers and their companies. Although the focus of this particular workshop was on income-qualified programs that serve low- to moderate-income customers, the learnings and takeaways from that session were crystal clear and applicable to all utility customer programs.

Threats and disruptors - Even though they came from different jurisdictions and different parts of the country, the DSM thought leaders all noted that the events of 2020 are leading many—including policymakers, legislators, and regulators to question whether the traditional role and scope of utility programs should be revisited to address changing circumstances and needs. The DSM thought leaders all observed that consideration of equity and affordability concerns is on the rise. And, most notably, they all agreed that there's a growing influence in an expanded set of stakeholders who want the utility to deliver "more and different" from their programs, leading to the imposition of changing/new metrics of success for the utility's programs. Nowhere is this more evident than in the importation of expectations and metrics more commonly associated with the social, economic, and environmental justice communities to DSM programs. Against this new yardstick, programs deemed successful only two years ago can be found severely lacking today.



Emerging opportunities – In response to these threats and disruptors, the utility DSM leaders in our workshop landed on three categories of emerging opportunities to be explored: (1) leveraging partnerships (both within and outside of the utility) to bring in others who have unique customer relationships, different perspectives or expertise, and funding sources to better serve the full set of customer needs; (2) taking action now to optimize measure mix, incentive strategies, program designs, targeting, and behaviors to modernize their programs and increase effectiveness; and (3) taking the lead on incorporating social and economic justice considerations into program metrics to capture a broader range of value streams from EE and IQ (income-qualified) programs.

Next steps forward – Finally, in detailing what they saw as the most fruitful set of actions to take moving forward, the DSM leaders who participated in this workshop emphasized the need to collaborate on planning more broadly than they have in the past, despite the complexities it might add to existing processes. They began listing a broad and varied set of research questions that would need to be answered to allow them to make informed choices about how to steer the new planning processes and participants toward their shared goal of improving beneficial program impacts. And, finally, each of the DSM leaders walked away with a sense of specific programmatic opportunities that best fit the interests of their customers, company, and stakeholders.

Don't limit your re-examination to COVID-19 impacts – While this paper has largely focused on addressing the challenges brought about by COVID-19, 2020 also underscored the importance of becoming resilient—and that holds true for utility DSM programs as well. As utilities attempt to recover from the difficulties that COVID-19 has presented for their organization and their customers, their elasticity will provide them with an opportunity to actively engage their customers in their near- and long-term planning.

ICF believes that, in the DSM world, resiliency can be about utilities recognizing and delivering a wider aperture of integrated value to their customers. We are helping utilities who have embraced a more expansive view of their role in serving the public interest to develop new services and expanded offerings. These forward-looking utilities are seizing the opportunity to engage their communities to better prepare them for adaptation to changing conditions. Whether those changes involve a health pandemic, an economic crisis, or global climate challenges, utilities can and should retain a deeply embedded and essential role in helping their communities to withstand and recover rapidly from disruption. Today, ICF is helping utilities rethink what customer-side DSM programs look like with this sort of resiliency planning in mind. Our support focuses on assessing risks, building resiliency strategies, implementing resilient asset management, and capturing new value streams. These efforts cross the spectrum from customer care, to community and economic development, all the way to long-term system planning and climate strategies.

Key to successfully undertaking this sort of re-examination is the recognition that, ultimately, no one organization is responsible for owning resiliency, just as no one department "owns" the customer. Instead, every department within your utility must begin thinking holistically about your role in providing solutions for your customers, your communities, and your own utility company. If there is a silver lining to 2020, it may very well be that the strife that year caused has given us all the permission we needed to find new ways to serve our customers better, to connect more closely with the communities we serve, and to reenvision, re-invent, and re-launch our utilities' role to better meet the challenges of an ever-changing world.



Conclusion

The first section of this paper focused on the practical necessity of implementing effective adaptation strategies to protect your programs and portfolio from COVID-era disruption. The second section recommends targeting services that could help customers who are having difficulty paying their utility bills. The third section advocates for undertaking a formal, considered re-evaluation of your programs in light of changing circumstances and rapidly evolving expectations for your programs and your utility.

As this three-phase approach underscores, it is our firm belief that the changes in program scope and utility role required to address the events of 2020—and those to come—are fundamental and transformational in nature. They can't be addressed by waiting for "things to get back to normal." Nor can they be handled with a few simple, easy fixes. A more considered approach is necessary—one that is based on rigorous examination and tailored to your customers, your utility, and your community of stakeholders. ICF is honored to be working with a number of utilities across North America to help them find their right path forward. Please do not hesitate to contact us if we can be of assistance to you.



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About ICF

ICF (NASDAQ:ICFI) is a global consulting and digital services company with over 7,000 full- and part-time employees, but we are not your typical consultants. At ICF, business analysts and policy specialists work together with digital strategists, data scientists and creatives. We combine unmatched industry expertise with cutting-edge engagement capabilities to help organizations solve their most complex challenges. Since 1969, public and private sector clients have worked with ICF to navigate change and shape the future.