SmartGrid consumer collaborative
listen, educate, collaborate

Smart Grid Customer Engagement Success Stories

"You can see not only how much energy you are using but also how much it costs. That is a big incentive to use less. We are continuing to develop better habits on energy consumption."


SmartGrid
consumer
collaborative
listen, educate, collaborate

Table of Contents

Objective

Energy utilities in the U.S. are making significant strides in educating and engaging their customers about how to better control how much energy they use, the resulting costs they incur and the benefits of shifting their consumption. New installations and activations of Smart Meters combined with the deployment of Smart Grid infrastructure herald a new era of energy management by utilities and consumers alike.

While no two utilities are moving forward at the same pace, by 2012 many utilities had widely deployed Smart Meters, making an objective assessment of common success factors possible. Over 35 million Smart Meters are installed, making substantial progress toward the estimated 65 million Smart Meters that are to be installed and fully deployed by year-end 2015, equal to about half of all U.S. households.[1]

This report by the Smart Grid Consumer Collaborative (SGCC) spotlights how Smart Meter / Smart Grid deployments by four utilities have engaged consumers to enable them to match the energy they use with their needs and lifestyles. In every case, the engagement strategies and tactics employed by the utilities have led to behavioral change as customers have actually reduced their electricity bills. Along the way, the utilities spotlighted are improving their ability to balance how they meet peak demands for power without relying solely on building or acquiring new generating assets. Scaling up these experiences harbors huge benefits not just for consumers and the industries that serve them, but also for the environment and energy policy.

The four utilities are:

- CenterPoint Energy
- Oklahoma Gas & Electric
- San Diego Gas & Electric
- Southern California Edison

Selection Criteria for "Smart Grid Success Stories" were as follows:

1. Significant deployment of Smart Meters and the underlying Advanced Metering Infrastructure (AMI).
2. Strategic engagement through education programs that enable and motivate consumers to use the available Smart Grid technology and/or program.
3. Evidence of consumer engagement as determined in part by authentic customer testimonials available articulating the benefits of Smart Grid in their own voices.
4. Utilities willing to share the lessons they're learning.

Executive Summary

Looking across the dynamic ecosystem of Smart Grid, the SGCC finds that positive experience with Smart Grid is growing. As consumers become aware of Smart Grid/Smart Meters and their knowledge and favorability grow, utilities have started introducing new technology, devices and applications to empower consumers, help them take action, and control their usage. This report spotlights the strategies and tactics employed by four energy utilities in the U.S. to successfully engage customers with the benefits of the Smart Grid, Smart Meters, demand response, and enabling technology and devices for home energy management. As Smart Grid becomes more pervasive across the U.S., this SGCC report highlights a set of successful engagement principles to serve as a resource for all industry stakeholders looking to hasten consumer awareness, acceptance and adoption of Smart Grid technologies and programs.

This list is not meant to be a definitive tally of successful consumer engagement by utilities. There are other utilities in the U.S., including those owned by governments, that have demonstrated considerable progress in engaging their customers about what Smart Grid investments mean to them. This first report, and future editions, are guided by the SGCC's consumer-centric criteria and its mission to foster development of a consumer safe and friendly Smart Grid.

The purpose of this report is to define a set of successful engagement principles that all industry stakeholders can easily draw from to hasten the deployment of Smart Grid policies, technologies, equipment and programs that will benefit consumers and society alike. Examples of how each of these four utilities produced measureable gains in customer satisfaction, Smart Grid program adoption, and behavioral change are detailed in their individual narratives.

While performance metrics are referenced on occasion in this report, the findings in this report are qualitative in nature and do not reflect a quantitative analysis.

Seven Core Ingredients of Successful Smart Grid Engagements

1. Educate Customers Before Deployment
2. Anticipate and Answer Questions Before Customers Ask Them
3. Facilitate Community Engagement
4. Communicate Ways to Shift Usage Off-Peak
5. Deploy User-Friendly Web Portal
6. Offer User-Friendly Smart Grid Enabled Technology Such as Thermostats
7. Create Authentic Customer Testimonials

1 Educate Customers Before Deployment

Put yourself in the consumer's mindset: greeted — some might say confronted — with a brand new way of thinking about home energy management, now customers can start to proactively manage the electricity they use. This change in how customers relate to energy requires a commensurately thorough and enlightened approach to boost customer awareness of Smart Meters and the benefits they offer. Below are two examples of consumer-centric communication strategies and well-executed tactics that led to successful Smart Meter deployments and customer education.

SDG&E's 90-60-30-day Implementation Protocol

Along with general media outreach, San Diego Gas & Electric (SDG&E) built awareness about planned Smart Meter installations at each of three 30-day intervals leading up to installation. "We tested every step in this process with the customer and the end result in mind," said Farrell Cox, SDG&E's Smart Meter Deployment Manager.

90 DAYS AHEAD: Stakeholder Education Group members connected with community leaders wherever possible in face-to-face meetings.

60 DAYS AHEAD: Group members organized and spoke to community gatherings about how Smart Meters could help them better understand the cost of the energy they use.

30 DAYS AHEAD: Customers received a letter with a timeframe they could expect a Smart Meter to be installed at their residence.

A FEW DAYS BEFORE, two outbound dialing teams — one at SDG&E, the other at contractor Grid One — notified customers of the 'window' during which the installer would be on site. Customers had the option of specifying their own 'window.' This way, they could be sure, for example, their computers were backed up and turned off and any life-support systems could continue to run smoothly.

SDG&E's strategy paid off. Out of 2.3 million meter installations, they received complaints from only about 1,200, or 0.16%, of them.

CenterPoint Energy's Strategy from Day One

A key component of CenterPoint Energy's Smart Meter deployment strategy included staging communications ahead of key customer touch points. CenterPoint Energy notified consumers in their territory of Smart Meter deployment using door hangers, small billboards, radio in retail stores and cinema advertisements. They also enabled consumers to track deployment progress in their neighborhoods online. Increasingly, they found that Smart Meter awareness grew along with consumers' keen interest in better managing their costs of air conditioning through Texas' often brutal hot summer days and nights. From their 2011 survey of electricity consumer in the Houston area, CenterPoint Energy found that 80% approved of the company's Smart Grid; only 6% disapproved.

2 Anticipate and Answer Questions Before Customers Ask Them

Preparation may be three-fourths of the challenge of engaging utility customers. To manage expectations and address customer concerns before they have the opportunity to snowball, utilities need to think like consumers and anticipate the questions they are likely to ask before, during, and after Smart Grid/Smart Meter deployment.

Training Employees to be Ambassadors

Utilities can leverage their employees' relationships and status in their communities by using internal education programs to encourage them to act as program representatives and engage in personal, informal interactions with customers. Internal messaging and education programs also ensure that all employees provide a consistent and positive external message across all customer touch points.

- CenterPoint Energy tapped its Houston-area workforce of 2,175 employees to communicate Smart Meter essentials with a Smart Meter training program. Approximately 1,500 of those employees were trained using a separate intelligent grid training module. Those who passed an online course for each became "ambassadors" for the company's "energyInSight" campaign. The company's ambassadors fanned out to speak to a variety of civic, religious, and business groups demonstrating along the way how serious they are in making the Smart Grid work for all of the consumers in their service territory.
- To ensure they were plugged into customers' adoption of Smart Meters and what it could do for them, SDG&E deployed an "Infield Liaison Team" comprised of three recent retirees to canvass about 50,000 customers in a representative sample of neighborhoods about two weeks after the installation.

Share The Details: Frequently Asked Questions (FAQ's)

When questions or complaints cannot be addressed by front-line personnel, a platform to elevate the utility's response can help prevent customer issues from veering out of control. FAQs (frequently asked questions) represent one of the most important web pages in an organization's website. Nowhere else do customers so deliberately indicate that they want to know the details than by clicking on FAQs. Answers to customers' most frequently asked questions and concerns can be streamlined using customer-friendly language and images.

Below we spotlight FAQs by CenterPoint Energy and Southern California Edison for their breadth and depth.

CenterPoint Energy

CenterPoint Energy may have left no stone unturned in its efforts to address a variety of questions prompted by the installation of Smart Meters.

What makes "smart" meters smart? CenterPoint Energy outlines how Smart Meters transmit electric usage data via a wireless two-way communication system and how this enables consumers to track energy consumption down to 15-minute intervals. If a customer's power goes out, CenterPoint Energy drives home how its operations personnel can see that immediately and thus direct crews to begin restoring power more quickly than with analog meters.

I'm concerned about privacy. Will Smart Meters let you see when I watch TV or run my appliances? CenterPoint Energy explains that Smart Meters do not reveal when one watches TV or operates appliances. The usage data delivered by Smart Meters is not categorized by appliance. That said, the company points out that if customers choose, they may be able to connect five electric appliances to an optional Home Area Network (HAN) enabling them to see how each appliance uses electricity.

Exactly how much money will I save with the new Smart Meters? After explaining how savings can depend on one's usage, CenterPoint Energy offers consumers examples on YouTube about In-Home Displays and how they can get the most out of Smart Meters.

Who else can see my usage? Are you going to share my information with marketers? CenterPoint Energy spells out how under Texas law, energy usage data belongs to the consumer and can be shared only when authorized in writing by the consumer or authorized by regulatory authorities as necessary to conduct business, such as for billing.

Southern California Edison

Southern California Edison (SCE) posted 68 FAQs on its web site and organized them by four different categories. Here are the categories along with an illustrative sample from each.

SMART METERS: What can I read on my usage reports? SCE explains that residential customers can see their usage in hourly increments and can monitor it online using the "My Account" feature. SCE reminds readers that usage is not individually tracked to specific appliances or electrical devices.

PRIVACY: How does SCE use my energy-use data? SCE writes that Smart Meters transmit only two types of information: the quantity of electricity that customers use and when they use it for the purpose of ensuring bill accuracy and optimizing the electricity grid.

HOME AND BUSINESS AREA NETWORKS: What security measures does SCE take to keep my energy information safe when I register a device? SCE walks readers through its secure standards-based meter and network communications system and how it adapts security and testing protocols from the banking and defense industries. With a link to more information, SCE explains how data from home network devices are encrypted and are further protected by a strict confidentiality and privacy policies, as well as state-of-the-art technologies that safeguard customer information.

OPTING OUT: Why does it cost money to opt out of a Smart Meter? SCE spells out in simple terms how digital meters are now the standard throughout California. As determined by the California Public Utilities Commission, households opting out need to pay for the costs of continuing to manually read and service analog meters.

3 Facilitate Community Engagement Programs

Once Smart Meters are deployed, a few utilities offer their customers the opportunity to participate in community engagement programs. These programs help promote goodwill, boost Smart Meter awareness, and motivate customers to think about ways they can save energy, and save money.

Below are examples of how CenterPoint Energy and SDG&E use contests to reward those customers who make the most of their Smart Meter data to reduce or shift their energy usage and potentially lower their electric bill.

Contests Designed to Engage

Integral to CenterPoint Energy's awareness-building and education campaign was the creation of an annual "Biggest Energy Saver Contest" in the summer of 2011. The goal of the contest was to encourage consumers in their service territory to manage and reduce their home's monthly electricity usage as compared to similar periods in the prior year. The campaign encouraged customer engagement with new in-home devices and software applications for smart phones to help them easily understand and use information from their new Smart Meters.

CenterPoint Energy's first Biggest Energy Saver Contest winner, Mike Butler, used an in-home device in his apartment and the Smart Meter Texas portal to reduce his consumption during three summer months by 36 percent compared to the year-earlier period.

San Diego Gas & Electric also introduced their first Biggest Energy Saver Contest (run by Simple Energy) in 2011 to boost Smart Meter awareness and motivate customers to reduce their energy consumption. Erica and Collin of Lakeside, California, became SDG&E's first Biggest Energy Saver. They won a laptop computer after reducing their usage by 1,350 kilowatt hours, or 46% from the same Sept. 1 – Nov. 30 period a year earlier.

Collin: *"I looked it over, read the rules and looked at the prizes. I told myself, we could really win this thing."*

Erica: *"I think it would be really neat to let family members compete on Facebook with energy consumption. The contest is what really got us motivated."*

Collin: *"I did a lot of research on the types of TVs and types of appliances we had. I found out how energy efficient they were. I found out our older plasma TV set really wasn't that energy efficient.*

Erica: *"You can see not only how much you're using but how much it's costing you. That's a big incentive. We're still saving money four months after the contest because we developed (good) habits on energy consumption … We literally went to Disneyland on our savings."*

Working Together To Reduce Peak Usage

With record breaking summer temperatures and electricity usage in Texas, a new sweepstakes — Lighten Your Load — was designed to reduce strain on the electrical grid by motivating contestants to conserve energy by reducing usage during periods of high demand. The Lighten Your Load Sweepstakes, offered to electricity consumers in Oncor and CenterPoint Energy service territories, rewarded contestants who reduced their electricity usage between 3 p.m. and 7 p.m. on selected peak demand days with sweepstakes points. Approximately 20 hours prior to the start of a peak event, email and social media alerted contestants when to conserve. Small behavioral changes in response to these alerts led to big savings. The top 10 percent of contestants reduced their usage by more than a third — despite the record heat.[2]

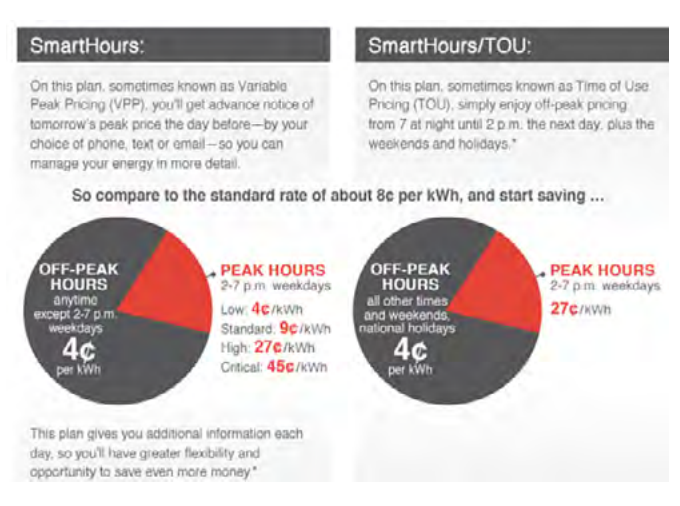
With a similar intent, SDG&E created "Reduce Your Use" day rewards which enabled customers to earn a bill credit for using less electricity on specific days between 11 a.m. and 6 p.m during their summer peak season. Participants set up email or text alerts on SDG&E's website to be notified the day before a Reduce Your Use day occurs. In the first year alone, approximately 50,000 SDG&E customers signed up to receive text and email alerts, more than 40 percent of eligible customers received a credit on each of the event days, and customers who reduced received almost $20 in bill credits in 2012.

4 Communicate How To Shift Usage Off-Peak

Motivation to participate in Smart Grid-enabled pricing programs varies as a function of consumer values and attitudes. When evaluating these programs, consumers would like easy to understand and simple information to help them decide whether these programs fit their lifestyle. Consumer-friendly information about how and when to shift usage to off-peak demand hours can help customers anticipate and plan their daily usage patterns and routines.

Oklahoma Gas & Electric (OG&E) proves that the success of their two distinct time-of-use programs is built upon a foundation of partnership with customers, working together to reduce peak demand. They provide consumer-friendly information about how and when to shift energy use to help customers take action. By the end of the 2012 summer cooling season, OG&E had enrolled more than 44,000 customers in the SmartHours program. Collectively, those customers helped OG&E meet its target of 70 megawatts of load reduction; the goal by 2014 is a reduction of 210 megawatts and lowering peak demand.

Under the basic SmartHours program, OG&E provides advance notice of the next day's peak price via phone, text or email. From there, participating customers can figure how to shift usage out of the peak period and pay the applicable variable rates which range from a "low" cumulative usage total at 4 cents per kWh up to a "high" usage total at 22–27 cents per kWh. When OG&E needs to declare a "critical" power event, with two hours advance notice, prices could reach 45-46 cents per kWh.



A simpler either/or approach offers customers the options of paying a flat rate during all peak hours of 27 cents per kilowatt hour. While they pass up the opportunity to significantly reduce their consumption and pay the commensurately lower rate, they are not subject to any critical peak pricing events.

With incentives such as these, more and more of OG&E's customers are taking action to manage their electricity consumption and in the process reducing their bills.

"When you give them [customers] that power, you turn that commodity, electricity, into comfort, convenience and safety, something a lot more meaningful than just electricity," said Jesse Langston, vice president of retail energy for OGE Energy Corp., OG&E's parent company. "Our complaints from customers have gone down, mostly driven by accuracy in bills."

"When our customers call up and talk to one of our consultants, they have data to look at and help them understand what's going on with their bill. Unlike before, we're having better, broader, deeper conversations with our customers about their usage and what they can do."

5 Deploy User-friendly Web Portal

State-of-the-art online portals enable customers to become fully engaged and active in energy management. Some web portals provide easy-to-read charts that allow customers to see how raising or lowering their thermostat a few degrees and turning off lights and computers can impact their bills and/or the environment. Others offer customers near-real-time energy usage information detailing how much, when, and in some cases, at what price, they use energy. To deepen engagement within their social community, some online portals provide customers with the ability to compare their usage with neighbors and/or Facebook friends and even share energy savings tips.

Below are two noteworthy examples of how OG&E and SCE are helping customers get more out of their personalized energy use information and find new ways to save with user-friendly web portals.

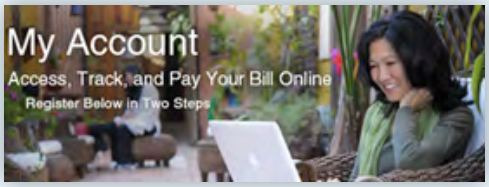
Oklahoma Gas & Electric

The portal offered by Oklahoma Gas & Electric (OG&E) — myOGEpower — is the centerpiece of the utility's strategy to equip customers with information to analyze their electricity consumption. On its website, OG&E provides easy to digest information about their time-of-use pricing (SmartHours) programs and allows customers to compare how the different residential rate plans might save them money and fit their lifestyle.

myOGEpower also gives customers the tools to compare their usage to similar homes in the area, as well as view the impact that their energy use has on the environment.

Southern California Edison

The portal by Southern California Edison (SCE) is run as customers' "My Account" program and serves as their energy use control center. Customers have the option of tracking their energy use by the hour, day, month or even year-to-year. The reports are easy to read and come with insights to help shift usage to evenings and weekends. Within the first year of its deployment, the My Account service became one of SCE's most popular offerings.



6 Offer User-Friendly Smart Grid Enabled Technology Such as Thermostats

Increasing Smart Meter deployments, as part of interconnected and interoperable Smart Grid infrastructure, serve as a catalyst for new Smart Grid enabled products, services, and applications (apps). Today, there is a growing array of smart thermostats and devices available with new and innovative functionality to help consumers better control their temperature and comfort settings automatically. As customers become increasingly engaged in Smart Grid, utilities are beginning to offer these enabling technologies for home energy management (HEM).

Below are examples of the smart technology offered by OG&E and SDG&E.

Helping Customers Go Beyond just 'SmartHours'

OG&E's SmartHours Plus program offers customers a state-of-the-art programmable SmartTemp thermostat coupled with the time-based rates from the SmartHours program. The technology of the SmartTemp Thermostat allows customers to take better advantage of time-based pricing by adjusting temperature settings to coincide with peak hours. The thermostat receives price signals through the Smart Grid system and automatically adjusts the temperature to match customer's personalized comfort or conservation settings.

Home-Area-Network Devices Provide Real-Time Controls

Since early 2013, SDG&E customers have been able to purchase and install one of three home area network (HAN) devices. All devices are integrated with customers' Smart Meters to help them make smarter energy decisions and reduce their overall usage and costs.

Customers also can determine approximately how much energy various appliances in their home are using, such as a new energy-efficient TV or outdoor patio lights, by watching the kilowatts and estimated cost per hour go up or down on a small digital display.

7 Create Authentic Customer Testimonials

Hearing and seeing is believing for many consumers. So, it stands to reason that spotlighting customers willing to tell their stories about how Smart Meters are helping them save money and improve the environment can go a long way to convincing people that they, too, can benefit from a smarter grid.

The four utilities profiled in this report excel at developing testimonial videos that share their customers' experiences with Smart Grid and the benefits it provides. Below are excerpts taken from a few of their customer testimonials. Full length videos of the customers' testimonials are available in the SGCC resource library at smartgridcc.org: http://smartgridcc.org/category/resource-library/smart-grid-benefits-resource-library/success-stories

Oklahoma Gas & Electric

"You can live better in this OG&E program … You pick up good habits … We saved a ton of money." — John Fagan

"If people make changes across not only the state but the country, it really adds up for her future." — Kris Glenn

Southern California Edison (SCE)

"What I get from SCE is a bird's eye view of my electric usage. Since I got my new meter from SCE, I can go online, monitor my energy usage and reduce my costs substantially. I get notifications from SCE. The email tells me exactly where I am to my goal so I can modify my own electric usage when I need to. All that makes my life easier." — Dan from Whittier

CenterPoint Energy

"On our own, we've been trying to budget as much as we can … What we found is that we can eliminate $20, $30 a month of electricity we weren't using." — Ruth Dorio

"We didn't have to go to the computer all the time. We had something up-close and personal that we could look at and understand what our usage was." — Jack Hart

San Diego Gas & Electric (SDG&E)

Customers Erica and Collin of Lakeside, California discuss how they used information from Smart Meters to win SDG&E's first Biggest Energy Saver contest in 2011.

Erica: " I think it would be really neat to let family members compete on Facebook with energy consumption. The contest is what really got us motivated."

Collin: "I did a lot of research on the types of TVs and types of appliances we had. I found out how energy efficient they were. I found out our older plasma TV set really wasn't that energy efficient."

References

1. Utility-Scale Smart Meter Deployments, Plans, & Proposals, Institute for Electric Efficiency, May 2011 http://www.edisonfoundation.net/iee/Documents/IEE_SmartMeterRollouts_0512.pdf

2. PRnewswire, Oncor Partners with Grid 21 to Launch Biggest Energy Saver(SM) Campaign in Texas, The Business Journals, July 2011. http://www.bizjournals.com/prnewswire/press_releases/2012/07/11/DA38736

A Smart Grid Vision for the Next Generation

Judging by surveys of their customers and illuminating testimonials, when CenterPoint Energy talks about "creating an intelligent future … today" they are making noteworthy strides in doing so. Now that technology is a big part of their enterprise, CenterPoint Energy is demonstrating a consumer-centric approach in the development and implementation of consumer education and awareness programs as evidenced by the initiatives described below.

How CenterPoint Energy Installed Smart Meters and Is Deploying the Smart Grid for Houstonians

CenterPoint Energy embarked on a planned five-year Smart Meter deployment campaign in 2009 and completed it nineteen months ahead of schedule in June 2012. Along the way, CenterPoint Energy delivered enhanced Smart Meter functionality to retail electric suppliers serving Houston and the surrounding area as part of its "energy InSight" program.

Today, 2.2 million Houstonians have more control over their energy use, while CenterPoint Energy continues to improve electric reliability and restoration of power following weather events. Smart Meters virtually eliminate manual meter reading providing customers with more privacy and more accurate digital meter readings. Starting or stopping service now is easier, faster, and cheaper. And if consumers want to change their electricity supplier in Texas' competitive retail market, that too is easier, helping to promote competition and save consumers money.

Encouraging Smart Energy Savings

In the summer of 2011, CenterPoint Energy and other industry partners launched the "Biggest Energy Saver Campaign" to encourage consumer engagement and development of new software applications that can help customers easily understand and use information from their new Smart Meters.

The 2011 contest winner, Mike Butler, used an in-home device (IHD) and the Smart Meter Texas portal to reduce his consumption by 36 percent. Mr. Butler praised the availability of charts comparing his usage saying it was "very easy to see the difference on consumption."

The 2012 Biggest Energy Saver Campaign featured two components — the residential "Consumer Contest" and a new "Lighten Your Load Sweepstakes." The 2012 Consumer Contest encompassed July, August and September. The customer who reduced usage the most compared to the same period in 2011 would be declared the winner. The Lighten Your Load Sweepstakes, new in 2012, rewarded those customers who reduce electricity usage during the afternoon on selected peak demand days.

The 2012 winner of the Customer Contest, Kawaljeet Tagore, reduced her use by 37% after being normalized for weather. The top 25% of the 2012 customer contestants averaged 21% savings. The Lighten Your Load participants — 198 of them — averaged a 5% reduction in peak usage. By year-end 2012, both contests had helped grow awareness of the value of in-home network devices; more than 8,500 households had installed them.

Engaging the Consumer Across Multiple Channels

CenterPoint Energy succeeded because it approached the deployment of Smart Meters with a well-executed strategy designed to educate and engage electric customers. That strategy included:

- Staged communications ahead of key customer touch points. CenterPoint Energy notified its customers of deployment using door hangers, small billboards, radio in retail stores and cinema advertisements. It also enabled customers to track deployment progress in their neighborhoods online.
- Thorough preparation for answering consumer complaints. The company conducted education programs for employees and contract meter installers to ensure its Smart Grid messages would be communicated consistently across all company representatives. It created an "energy InSight employee ambassador" program which required employees to pass an online course. More than 40% of the Houston-area workforce — 2,175 employees — were trained on CenterPoint Energy's Smart Meter module. Almost 1,500 employees were trained on the company's intelligent grid module.
- Addressing overarching skepticism. CenterPoint Energy distributed a "Mythbuster" pamphlet at community events with frequently-asked-questions addressing common concerns. The fact that less than 0.1% of customers complained demonstrates how proficient they were from the customers' points of view.
- In-depth engagement through social media. CenterPoint Energy created five different playlists on YouTube encompassing 42 videos, targeting various audiences such as residential electric and natural gas customers. Their channel educates consumers about the services offered as well as provides knowledge sharing related to safety, conservation improvement, smart appliances, hurricane preparedness, and energyInSight smart energy technologies.

A key lesson learned: While mass media built program awareness, face-to-face interactions made progress communicating the utility's goodwill and laid the groundwork for behavioral change.

Survey Demonstrates Value of Engaging Customers

From its 2011 survey of Houston-area customers, CenterPoint Energy found:

- 91% valued Smart Grid-enabled improvements in power restoration
- 89% valued Smart Meter-enabled energy saving opportunities
- 80% approved of the company's Smart Grid; 6% disapproved
- 74% changed their energy use using an in-home device, a Smart Meter Texas account, and/or email/text alerts
- 71% changed their energy behavior in the pilot test while another 17% said they planned to change their behavior in the ensuing year
- 70% expressed interest in smart appliances/thermostats

CenterPoint Energy Customers Tell Their Story

Here is how a few CenterPoint Energy customers saw and experienced the value of using the Smart Meter on their homes to save money. Here are a few highlights:

Ruth Dorio

"On our own, we've been trying to budget as much as we can … What we found is that we can eliminate $20, $30 a month of electricity we weren't using."

Jack Hart

"We didn't have to go to the computer all the time. We had something up-close and personal that we could look at and understand what our usage was."

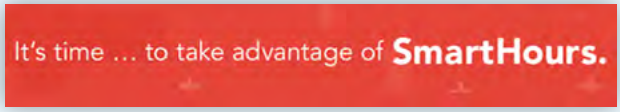
Jo Monday

"I can be unloading groceries from the grocery store, look at the monitor and open the refrigerator door and watch the (power usage) number go up. It's a real good learning tool for me."

Video of testimonials are available in our resource library at smartgridcc.org:
http://smartgridcc.org/category/resource-library/smart-grid-benefits-resource-library/success-stories

Helping Customers Take Advantage of Time-of-Use Pricing

Oklahoma Gas & Electric (OG&E) embarked on installing its Advanced Metering Infrastructure in 2008, rolled out their Smart Meters in phases, and offered a "SmartHours" program beginning in Norman, Oklahoma in 2010. The company now has completed Smart Meter deployment, installing more than 823,000 Smart Meters throughout its service area.



Each step of the way, OG&E has tested and fine-tuned how it is engaging customers to help them take full advantage of what its "Positive Energy Smart Grid" can offer. Today, an integral part of the utility's strategy is having tools available on the "myOGEpower" web portal. There, customers can analyze their energy bills, see the energy they are using and its costs, understand dynamic pricing and learn which rate plan is best for them.

Utility and Customers Working Together To Reduce Peak Demand

By the end of the 2012 summer cooling season, OG&E had enrolled more than 44,000 customers in the SmartHours program. Collectively, those customers helped OG&E meet its target of 70 megawatts of load reduction; the goal by 2014 is a reduction of 210 megawatts and lowering peak demand.

Easy-to-Digest Content on the Web

OG&E provides information on its website about how each of these programs work and the electricity prices customers in Oklahoma and Arkansas pay based on their involvement. Participating customers can learn how to lower their costs by avoiding peak demand periods where the standard per-kilowatt hour (kWh) price for electricity of about 9 cents can increase to the high-peak tier price of between 22–27 cents per kWh and even to the critical-peak tier of 45-46 cents per kWh (not including taxes and fees).

A robust set of FAQs — 39 at year-end 2012 — can easily be found on the company's web site. Each provides forthright answers to the myriad questions customers are bound to have and allows them to digest the information at their own pace.

Addressing Skeptics on Their Terms

In order to reduce perceived risk of these new pricing programs, OG&E provides a "best bill" guarantee which ensures customers will not pay more for the first 12 months they are on the SmartHours rate than they would have paid on the standard flat rate. If a customer pays more at the end of the 12 months, OG&E credits their account for the difference. Providing customers with a no-risk option to try these new programs helps them adjust their electricity usage away from the peak hours of 2–7 p.m. weekdays.

To head off questions about the meter accuracy after the installation of Smart Meters, OG&E left the old meter in place for one month and took a picture of its reading as evidence that the new meter was accurate going forward.

Helping Customers Go Beyond 'SmartHours'

OG&E's SmartHours Plus program offers customers a state-of-the-art communicating programmable thermostat coupled with the time-based rates of the SmartHours program. With the technology of the SmartTemp Thermostat customers can take better advantage of time-based pricing.

OG&E is seizing on a trend toward video tutorials to supplement the information in printed manuals. The instructional videos speak in conversational tones using language every customer should find easy to watch and understand.

To boost customer enrollment, OG&E tests and learns from different tactics. Email advertisements for OG&E's online portal included a click-through link to the website that was hugely successful. A time-of-use direct mailing, on the other hand, which included a self-addressed and stamped response card initially elicited only a 1% enrollment rate.

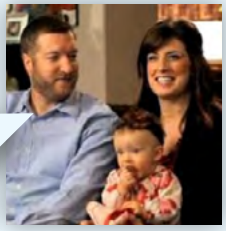
Read What OG&E Customers Have to Say:

John Fagan

"We know we had a huge electrical load in this house … (it) helped to learn where we could reduce that energy load … The program for my wife and I is a game: how can we shave another kilowatt hour? … How do we stay in our comfort zone? … You can live better in this OG&E program … You pick up good habits … We saved a ton of money."

Kris, Kelly and Lilly Glenn

"If we could change our energy habits, that was a smart thing to do … Now we're both very conscious of what 2 p.m. to 7 p.m. (peak time) means … I don't think the changes were hard. We just made little changes here and there … We've been able to save money and put it towards things like baby food … I've told everybody and their dog: 'Hey, sign up for SmartHours' … If people make changes across not only the state but the country, it really adds up for her future."

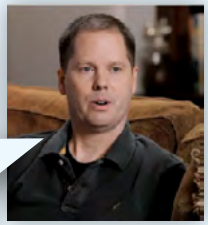


Miranda Kitchen

"We got into the SmartHours program, honestly, to save money … We made all kinds of changes to adjust to the peak hours … I'd say on average we saved $50 to $75 every month … I don't think the changes were hard on anyone in my family … Once you get used to making the changes, it's really easy … The program has changed how I think about using energy … It makes you aware of how much energy you're using and how much money you can save."

Matthew McCoy

"SmartHours started to give me some tools. I could see in real time what was going on in my home. I could also look online and see what my trend in usage was. I started to figure how unplugging the computer, changing out the lights started to impact my load and started to impact my savings every month … In my 2,000-square-foot home, I went from $191 in the peak of summer to only $71 in the peak of summer … It's very easy to do … You get green for being green."



Video of testimonials about the myOGEpower portal are available in our resource library at smartgridcc.org: http://smartgridcc.org/category/resource-library/smart-grid-benefits-resource-library/success-stories

SOUTHERN CALIFORNIA EDISON
An *EDISON INTERNATIONAL* Company

How Smart and Easy Energy Empowers Customers

As 2012 came to a close, Southern California Edison (SCE) was completing final Smart Meter installations for nearly 5 million residential and small business accounts located throughout its 50,000-square-mile service territory. The installations were part of the Edison SmartConnect program, which is a secure, two-way wireless advanced metering system that replaced traditional electric meters with new digital Smart Meters from 2009 to 2012.

As a result of the Edison SmartConnect project, residential and small business customers now have access to data about their electricity usage in hourly (residential) and 15-minute increments (small business), which is enabling them to make better-informed decisions about how they manage their usage.

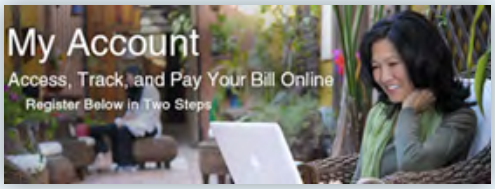
From the start of the project, one of SCE's key tenets was to ensure a positive customer experience during program implementation through its "Customer Engagement Model." SCE notified customers of upcoming meter deployment with community events, targeted media relations announcements, print and television ads, radio spots, and just-in-time letters. It allowed customers to schedule installations if the first attempt was unsuccessful due to access issues. This proactive approach enabled SCE to achieve more than 80 percent customer satisfaction early on in the Smart Meter installation process.

In addition, SCE openly engages its customers in conversations about how Smart Metering will create a "digital network" that serves as the foundation for a Smart Grid of the 21st century and that is enabling customers to get the most out of its "new intelligent infrastructure." Whether it's managing their own usage, identifying power-related issues in the home, shortening power outages, and /or improving the environment, the Edison SmartConnect program provides customers with information needed to better manage their usage.

Edison SmartConnect-Enabled Programs

Smart Meters are enabling a whole host of new programs and services that have changed the "conversation" from a once-a-month interaction between the utility and the customer to an ongoing interaction that takes place in near real time. Several examples of the way business-as-usual has changed at SCE are highlighted below.

My Account: the Customers' Online Energy Use Control Center



For customers who enroll in SCE's My Account program, they can now view custom usage reports as well as current and projected monthly costs. They can also plan and manage their bill, set up alerts to stay on track, and take advantage of convenient online billing and payment options.

Customers have the option of tracking their energy usage by the hour, day, month, or even year-to-year with online usage reports. The easy-to-read reports provide insights into when they use the most electricity and can be handy when trying to reduce their bill by shifting usage to evenings or weekends.

Within the first year of launching the My Account service, more than 350,000 residential customers had signed up, several of whom have expressed surprise with what the Edison SmartConnect program is enabling them to do.

Budget Assistant: the Customer's Energy Watchdog

Budget Assistant is SCE's free and easy-to-use Smart Meter-enabled tool that helps customers eliminate energy bill surprises. Customers can set monthly spending goals, track progress and get automated alerts to stay in control and on budget every month. By year-end 2012, 349,000 SCE customers had signed up for and started using Budget Assistant.

What Customers Have Said About Budget Assistant:

Roberta R. from Mira Loma

"Budget Assistant is a wonderful tool. It's useful to know how much our bill is at all times since we have a fixed income. Thank you Southern California Edison."

Maria R. from Whittier

"Budget Assistant helped me set up a budget and monitor as the month progresses. I have been able to keep within my budget. It's a great tool."

Save Power Days:

Save Power Day Incentive is a program available to eligible SCE residential customers. The Save Power Day Incentive rewards participating customers for reducing energy use between 2 p.m. and 6 p.m. during Save Power Days, up to 12 times each year. By reducing electricity use during Save Power Days, customers can earn up to $100 annually in bill credits. As of December 2012, more than 820,000 residential customers had signed up.

SCE's Save Power Days program has grown to become the largest in the country. During the summer of 2012, SCE declared Save Power Days a day in advance and provided customers with special incentives to save energy to help SCE meet overall customer demand. Through November for calendar 2012, SCE paid approximately $4.4 million in incentives to customers enrolled in its Save Power Days program.

Peering Into the Future

As SCE began 2013, the Edison SmartConnect team was updating its engagement strategy to go beyond basic segmentation by pilot-testing lifestyle plans that include "green" and eco-focused customers and those who view themselves as technology experts.

SCE is developing algorithms that dis-aggregate customers' usage data to help them make smarter energy decisions. SCE aspires to help customers calculate the energy payback of making certain home improvements and purchasing more energy efficient appliances.

In addition, SCE continues to focus on reaching customers wherever they might be without having to log in to a traditional computer. One of the features launched in late 2012 included a free app for smart phones enabling a growing array of mobile services for SCE's customer base.

"We're trying to think about the ways customers want to be engaged," said Larry Oliva, Director of Tariffs, Programs and Services at SCE.

SCE on YouTube: How Two SCE Customers are Benefiting

SCE has developed 19 different playlists targeting various audiences, including residential market segments. Its YouTube channel educates consumers about the latest services being offered and shares knowledge about safety, technology, reliability and customer assistance. Two of the videos there feature "Dan" and "Cynthia" who tell their stories about how they are using Edison SmartConnect-enabled programs to save.

Cynthia from San Bernardino

"EdisonSmartConnect helps me identify new ways to save … I started seeing alerts. Apparently the timer on my pool was out; the (heater) was on 24/7. I was able to quickly resolve the problem and that saved me lots of money. Saving money for my daughter means being able to go to theme parks. Edison SmartConnect works for me because it keeps me and my family stay in the fun zone."

Dan from Whittier

"What I get from SCE is a bird's eye view of my electric usage. Since I got my new meter from SCE, I can go online, monitor my energy usage and reduce my costs substantially. I get notifications from SCE. The email tells me exactly where I am to my goal so I can modify my own electric usage when I need to. All that makes my life easier."

Video of testimonials are available in our resource library at smartgridcc.org:
http://smartgridcc.org/category/resource-library/smart-grid-benefits-resource-library/success-stories

How Transparency, Contests and Cutting-Edge Tools All Help Customers Make Smarter Energy Decisions

From the beginning of 2009 through the scaling up of Smart Meter-enabled applications in 2012, the Stakeholder Education Group at San Diego Gas & Electric (SDG&E) responsible for the customer experience has been focused primarily on one goal: transparency with customers.

The Foundation for SDG&E's Success: A 90-60-30-day Implementation Protocol

Along with general media outreach, this plan built awareness about planned Smart Meter installations at each of three 30-day intervals leading up to installation."We tested every step in this process with the customer and the end-result in mind," said Farrell Cox, SDG&E's Smart Meter Deployment Manager. To ensure a smooth deployment, the entire project management team worked within 100 feet of each other.

90 DAYS AHEAD: Stakeholder Education Group members connected with community leaders wherever possible in face-to-face meetings.

60 DAYS AHEAD: Group members organized and spoke to community gatherings about how Smart Meters could help them better understand the cost of the energy they use.

30 DAYS AHEAD: Customers received a letter with a timeframe they could expect a Smart Meter to be installed at their residence.

A few days before, two outbound dialing teams — one at SDG&E, the other at contractor Grid One — notified customers of the 'window' during which the installer would be on site. Customers had the option of specifying their own 'window.' This way, they could be sure, for example, their computers were backed up and turned off and any life-support systems could continue to run smoothly.

Roles for Stakeholder Education and Infield Liaison Teams

Inherent in the focus on transparency was the belief that quick, nimble and responsive customer communications could get in front of and deal credibly with any customer complaints. And it paid off. Out of 2.3 million meter installations, SDG&E received complaints from only about 1,200, or 0.16%, of them. "If something went wrong, we fessed up and fixed it as quickly as we could," said Shannon Ray, who managed customer communications for the Stakeholder Education Group.

To ensure they were plugged into the customers' adoption of Smart Meters and what it could do for them, SDG&E deployed an "Infield Liaison Team" comprised of three recent retirees to canvass about 50,000 customers in a representative sample of neighborhoods about two weeks after the installation.

Customers in Control and Earning Bill Credits on "Reduce Your Use" Days

For the summer peak cooling season, SDG&E created "Reduce Your Use" day rewards enabling customers to earn a bill credit for using less electricity on specific days between 11 a.m. and 6 p.m. Participants set up email or text alerts on SDG&E's website to be notified the day before a Reduce Your Use day occurs.

In the first year alone, approximately 50,000 SDG&E customers signed up to receive text and email alerts, more than 40 percent of eligible customers received a credit on each of the event days, and customers who reduced received almost $20 in bill credits in 2012.

Motivating Customers with Contests That Engage

As with two other Smart Grid-enabled utilities, SDG&E achieved success with a Biggest Energy Saver contest. Not only did it boost awareness, but the contest got customers thinking about how they can save a significant amount of energy and money.

What follows are highlights from SDG&E customers Erica and Collin of Lakeside, California, on how they became SDG&E's first Biggest Energy Saver in 2011. They won a laptop computer after reducing their usage by 1,350 kilowatt hours, or 46% from the same Sept. 1–Nov. 30 period a year earlier. Watch the entire testimonial here, courtesy of contractor Simple Energy. http://vimeo.com/49777225

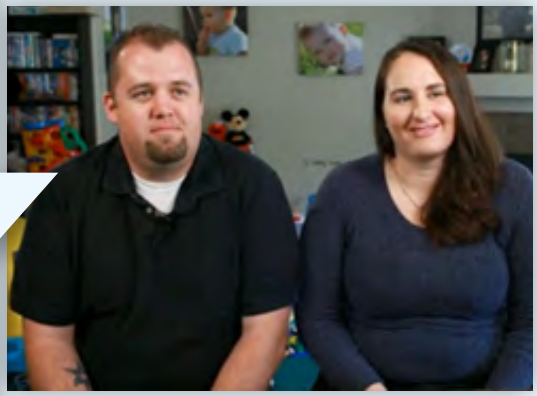
BIGGEST ENERGY SAVER CONTEST

Collin: *"I looked it over, read the rules and looked at the prizes. I told myself, we could really win this thing."*

Erica: *"I think it would be really neat to let family members compete on Facebook with energy consumption. The contest is what really got us motivated."*

Collin: *"I did a lot of research on the types of TVs and types of appliances we had. I found out how energy efficient they were. I found out our older plasma TV set really wasn't that energy efficient."*

Erica: *"You can see not only how much you're using but how much it's costing you. That's a big incentive. We're still saving money four months after the contest because we developed (good) habits on energy consumption … We literally went to Disneyland on our savings."*



Video of testimonials are available in our resource library at smartgridcc.org:
http://smartgridcc.org/category/resource-library/smart-grid-benefits-resource-library/success-stories

SDG&E built on its success with Biggest Energy Saver and launched the San Diego Energy Challenge[1] in July 2012. The San Diego Energy Challenge invited customers living within the boundary of the San Diego Unified School District (SDUSD) to "compete" on behalf of their local SDUSD middle school. Customers who joined the San Diego Energy Challenge had the chance to earn individual prizes and help their local SDUSD middle school compete for a chance to win a cash grant based on how much energy they saved on Reduce Your Use days. A total of $26,500 was awarded to eight SDUSD middle schools. At the time of this report's publishing savings evaluations were still underway.

Home-Area-Network Devices Provide Real-Time Controls

Since early 2013, customers have been able to purchase and install one of three home area network (HAN) devices that were validated by SDG&E. Each of the HAN devices is integrated with customers' Smart Meters to help them make energy consumption decisions and reduce their overall usage and costs.

Customers also can determine approximately how much energy various appliances in their home are using, such as that new energy-efficient TV or outdoor patio light, by watching the kilowatts and estimated cost per hour go up or down on a small digital display as the appliances are turned on or off.

Building on Green Button Data with PowerTools

SDG&E is not just participating in the industry-led "Green Button" program, inspired by a 2011 call-to-action from the White House to offer electricity customers easy access to their energy usage data, it is enabling customers to get more out of their personalized energy use information and find new ways to save energy with the first advance tool for interpreting Green Button data.

The first of these tools, aptly named "PowerTools," enabled by SDG&E and created by Candi Controls, was the first suite of secure cloud-based applications designed to help consumers identify ways to make smarter choices in their energy use habits and decisions, improve efficiency, and lower costs. PowerTools is available on iPhone and iPad via the iTunes Store, and in Google Play for select Android mobile phone and tablet devices.

With PowerTools, customers can:

- Analyze their historical electricity usage
- See an overview of actual use and savings relative to their history
- Learn about the environmental impact of their energy usage
- Choose and track energy saving goals
- See how the current and past local weather affects their energy usage

1. This material is based upon work supported by the Department of Energy under Award Number(s) DE-OE0000607. This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

SmartGrid consumer collaborative

listen, educate, collaborate

Mission

Smart Grid Consumer Collaborative is a 501c3 nonprofit organization chartered to be the trusted source representing consumers, advocates, utilities, and technology providers in order to advance the adoption of a reliable, efficient, and secure Smart Grid and ensure long-lasting sustainable benefits to consumers.

For more information, please contact us at sgcc@smartgridcc.org
or visit our website at www.smartgridcc.org.

"What I get from SCE is a bird's eye view of my electric usage. Since I got my new meter from SCE, I can go online, monitor my energy usage and reduce my costs substantially…"