

Case Study: Salt River Project— The Persistence of Consumer Choice

*Prepared for the National Forum on the National
Action Plan on Demand Response: Program Design
and Implementation Working Group*

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June 1, 2012

National Forum of the National Action Plan on Demand Response

Case Study: Salt River Project—The Persistence of Consumer Choice was developed to fulfill part of the *Implementation Proposal for The National Action Plan on Demand Response*, a report to Congress jointly issued by the U.S. Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC) in June 2011. Part of that implementation proposal called for a “National Forum” on demand response to be conducted by DOE and FERC.

Given the rapid development of the demand response industry, DOE and FERC decided that a “virtual” project, convening state officials, industry representatives, members of a National Action Plan Coalition, and experts from research organizations to work together over a short, defined period to share ideas, examine barriers, and explore solutions for demand response to deliver its benefits, would be more effective than an in-person conference. Working groups were formed in the following four areas, with DOE funding to support their efforts, focusing on key demand response technical, programmatic, and policy issues:

1. Framework for evaluating the cost-effectiveness of demand response;
2. Measurement and verification for demand response resources;
3. Program design and implementation of demand response programs; and,
4. Assessment of analytical tools and methods for demand response.

Each working group has published either a final report or series of reports that summarizes its view of what remains to be done in their subject area. This document is one of those reports.

The Implementation Proposal, and the National Forum with its four working groups’ reports, is part of a larger effort called the National Action Plan for Demand Response. The National Action Plan was issued by FERC in 2010 pursuant to section 529 of the Energy Independence and Security Act of 2007. The National Action Plan is an action plan for implementation, with roles for the private and public sectors, at the state, regional and local levels, and is designed to meet three objectives:

1. Identify requirements for technical assistance to States to allow them to maximize the amount of demand response resources that can be developed and deployed;
2. Design and identify requirements for implementation of a national communications program that includes broad-based customer education and support; and
3. Develop or identify analytical tools, information, model regulatory provisions, model contracts, and other support materials for use by customers, states, utilities, and demand response providers.

The content of this report does not imply an endorsement by the individuals or organizations that are participating in NAPDR Working Groups, or reflect the views, policies, or otherwise of the U.S. Federal government.

Case Study: Salt River Project—The Persistence of Consumer Choice was produced by Judith Schwartz for the Program Design and Implementation Working Group (Dan Delurey of the National Association for Demand Response and Smart Grid, chair), for the Lawrence Berkeley National Laboratory, who is managing this work under a contract to the National Electricity Delivery Division of the U.S. Department of Energy's Office of Electricity Delivery and Energy Reliability under Contract No. DE-AC02-05CH11231.

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Regarding the National Action Plan on Demand Response, visit:

<http://www.ferc.gov/legal/staff-reports/06-17-10-demand-response.pdf>

Regarding the Implementation Proposal for the National Action Plan for Demand Response, visit:

<http://www.ferc.gov/industries/electric/indus-act/demand-response/dr-potential.asp>

OR

<http://energy.gov/oe/downloads/implementation-proposal-national-action-plan-demand-response-july-2011>

Regarding the National Forum for the National Action Plan for Demand Response project, visit:

<http://energy.gov/oe/national-forum-demand-response-what-remains-be-done-achieve-its-potential>

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Acknowledgements

Case Study: Salt River Project—The Persistence of Consumer Choice is a product of the National Action Plan on Demand Response Program Design and Implementation Working Group.

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Introduction

The National Action Plan on Demand Response (NAPDR) called for the development and dissemination of case studies as an action to support demand response practitioners and policymakers. In developing its own plan, the Program Design and Implementation Working Group of the NAPDR deliberated over what kind of case study would be most useful to its target audiences of DR practitioners, smart grid technology and service providers, policymakers, and other stakeholders involved in demand response and smart grid activities.

The Program Design and Implementation Working Group acknowledges the significant level of experience and knowledge about design of demand response programs and products that exists throughout the electric industry, but recognizes that this information is diffuse and has not been captured in a way to allow best practices and lessons learned to be identified. Thus this Working Group has focused on interviewing and gathering information from DR practitioners and presenting it in a way as to allow others in the industry to learn from what has already been experienced.

The chosen approach includes interviewing relevant stakeholders and leveraging other published sources to collect varied perspectives (representative customers, consumer and/or environmental advocates, utility staff, regulators, and relevant technology or service providers and analysts) and present them in a way that would help others apply the practices to their own situations.

Case Study Structure and Uses

We hope these case studies will become the subjects of articles and panels at industry conferences, and used in workshops emulating the business school case study process. The case studies are posted online with links to relevant studies, data, and web, video, and collateral at: www.demandresponsesmartgrid.org.

To complement the detailed reports and data analyses common in the industry, we chose a narrative style that allows the individuals involved in the program or project to “tell their story” and state the challenges that presented themselves. We focus on the following key questions:

- How did the key player(s) view the challenges?
- What happened? What processes were used to meet the challenges?
- What were the reactions and perspectives of different stakeholders?
- What worked, what didn't work, what problems had to be overcome, what's next?

Salt River Project—The Persistence of Consumer Choice

One of the key rationales for investing in smart grid and meters is to offer consumers pricing that more accurately reflects true costs in order to encourage a flatter system-wide load leading to greater reliability and cost mitigation. Many pricing pilots have indicated that consumers respond to price signals, especially when enabled by automation, yet reservations and fears remain that the public will reject time-based pricing or that behavior changes will not persist. When measured, there seem to be consistently high satisfaction rates among those consumers who have experienced dynamic pricing and prepay programs. While no empirical evidence exists to the contrary, a significant number of consumer advocates, regulators, and others remain skeptical.

Salt River Project, established in 1903 as the nation's first multipurpose reclamation project authorized under the Federal Reclamation Act, has delivered electricity and water to metropolitan Phoenix for more than 100 years. A municipal utility, SRP is two entities: the Salt River Project Agricultural Improvement and Power District, a political subdivision of the state of Arizona; and the Salt River Valley Water Users' Association, a private corporation. The District provides electricity to nearly 950,000 retail customers in a 2,900 square mile area. It operates or participates in 11 major power plants and numerous other generating stations, including thermal, nuclear, natural gas and hydroelectric sources.¹ The NAPDR Program Design and Implementation Working Group chose SRP to be the subject of a case study for the following reasons:

1. This municipal utility has been a pioneer in time-based pricing and prepay since 1980;
2. The concept of consumer choice is embedded in its culture and programs;
3. The lessons are applicable to other jurisdictions that are evaluating both prepay and dynamic pricing by showing how choice in these offerings links with high customer satisfaction levels (95% as measured by J.D. Power);
4. Smart meters are enabling the established programs to evolve, thereby showing even greater potential for adoption; and

¹ For a history of SRP read: <http://www.srpnet.com/about/history/legacy.aspx>

5. As of May 2012, SRP has installed smart meters for 86% of its total customers in the greater Phoenix metropolitan area.

This case study examines the role that consumer choice plays when presenting pricing options.

Top lessons learned by SRP:

1. Make programs voluntary. Make the process easy and pleasant— nothing onerous—and let customers out of the programs if they change their minds at any point.
2. Offer pricing programs that help people develop new daily habits and routines that fit their schedules, and that can be communicated visually. [See page 12]
3. Offer prepay to everyone, not just customers with credit issues. Students, seasonal residents, and people who are paid on a weekly basis see definite cash flow benefits. Do not apply service charges per payment, regardless of the frequency or amount of payments.
4. Help people choose the programs that are right for them by asking simple questions that reflect their living situations and concerns. A combination of interactive tools for preliminary research, secure account-specific rate comparisons, and support from customer service will allow customers to determine the "best rate" for their residence and allow the utility to achieve broad adoption and persistent participation.
5. Deployment of smart meters can allow a utility to build on an existing platform of trust and customer satisfaction, introduce new pricing programs that can appeal to more customers, and allow them to potentially achieve greater cost savings.

Grow from roots in the community

"My family's from the area, and I've lived here most of my life. I started working for SRP based on the utility's reputation for how it treats its employees. You're not going to provide good customer service unless you treat your employees well to begin with," describes Mike Lowe, Associate General Manager and Chief Customer Executive.

David Daer, Principal Financial Analyst, whose father also worked for SRP, sees this connection as well, "Our emphasis on choice comes out of the customer-focused culture that's been in place for so long. We see value to community as an important metric that we measure through market research."

"SRP's board is publicly elected. This makes SRP customer-centric to begin with because we want to support our regulators in the community," says Lowe. "If we want support on transmission line or generation siting, or if we need a price increase from the community,

the utility needs to be a good steward and a good citizen and work within the community.

“We are adamant about supporting charitable activities in the area and so we spread our money widely. Employees are encouraged to volunteer. I am on a community hospital board. The company supports me heavily, in supporting the capital campaigns of this nonprofit hospital. Everyone knows that I work for SRP.”

Lowé allows significant time for working with consumer advocates. “We engage with them throughout the year and maintain a positive relationship with them. In addition to formal hearings, there are many opportunities for informal exchanges. We listen and actively solicit their opinions at local events, community meetings, and during breaks in our volunteer and board meetings. Our people are available to host energy education workshops for our customers.”

Cynthia Zwick, Executive Director, Arizona Community Action Association,² has personal experience as an SRP customer in addition to her work as a consumer advocate. “They always have supported me. And I’ve said that to the company in meetings with them. I’m really grateful to be an SRP customer. I think they take care of their customers. I really do.”

Discussion Questions

—Do municipal utilities and co-ops have an inherent advantage over investor owned utilities when it comes to connecting with the community?

—A J.D. Power national survey shows a correlation between high customer satisfaction and active community involvement. Will boards and investors in IOUs support similar attitudes and engagement, especially if there is brand value in that philosophy?

Build a culture of listening to customers

“When SRP was developing time-of-use (TOU) pricing in the 70’s, it did studies as to how much rate variance is needed to get a response,” explains Dave Daer. “We learned people don’t need to know exactly what the price is to know there are differences. We used refrigerator magnets to remind them about seasonal variances.”³

² Arizona Community Action Association (ACAA) is a statewide membership organization that works closely with community action agencies, as well as other agencies and individuals who have an interest in low-income issues and eliminating poverty. They do public education, advocacy, and get involved in rate cases in Arizona, representing the interests of low-income Arizona ratepayers. They perform some access-to-benefits kinds of work, Supplemental Nutritional Assistance Program (SNAP) outreach and education, and run a nonprofit fuel fund here, which leverages utility and other funding for low-income families for bill assistance and weatherization. They act as a statewide anti-poverty network. www.azcaa.org

³ To see SRP program details visit <http://www.srpnet.com/prices/home/tod.aspx>

"We have had residential time-of-use as an option—and it is an option—since 1980. In fact, I designed the first residential time-of-use rate. Today we have 22% of our residential customers on our seasonal Time-of-Use plan with a seven-hour window and another 6% on EZ-3 (3-6 PM, M-F all year). Voluntary choice is the key here," says Mike Lowe.

"Our customers tell us they are very pleased with time-of-use. In our territory, I do not hear objections from customers. Customers who have been on these rate plans for any time at all are very adept at shifting their load. They don't run the dishwasher or the pool pump on peak. They set their air conditioner temperature a little higher on peak. TOU customers typically have programmable thermostats for their air conditioners and timers on their water heaters and pool pumps. We have not come across many people that have gone the home area network automation route yet."

SRP staff engages directly with consumers through community events. SRP Program Manager Monica Trujillo explains, "We are often at events or we sponsor activities where community organizations participate. We like to be at venues where people can come, bring their bills, and ask questions. We really like that exchange, that conversation. We seek out customers at the places they like to go."

Dena Emary, Marketing Supervisor, confirms this channel is productive. "We have increased our presence in the marketplace over the last few years. We're at different events an average of 40 times each month, with our peak activity during September through May when our weather is cooler."

Emary describes the more formal listening processes also used by their research department. "We conduct a lot of focus groups, surveys, and online panel research. Our consumers like that they have choices and options. We consistently hear the same kinds of responses from different groups. We typically start by asking, 'what comes to mind when you think of SRP?' After they get past the general comments about 'my electricity and water bills,' we start probing.

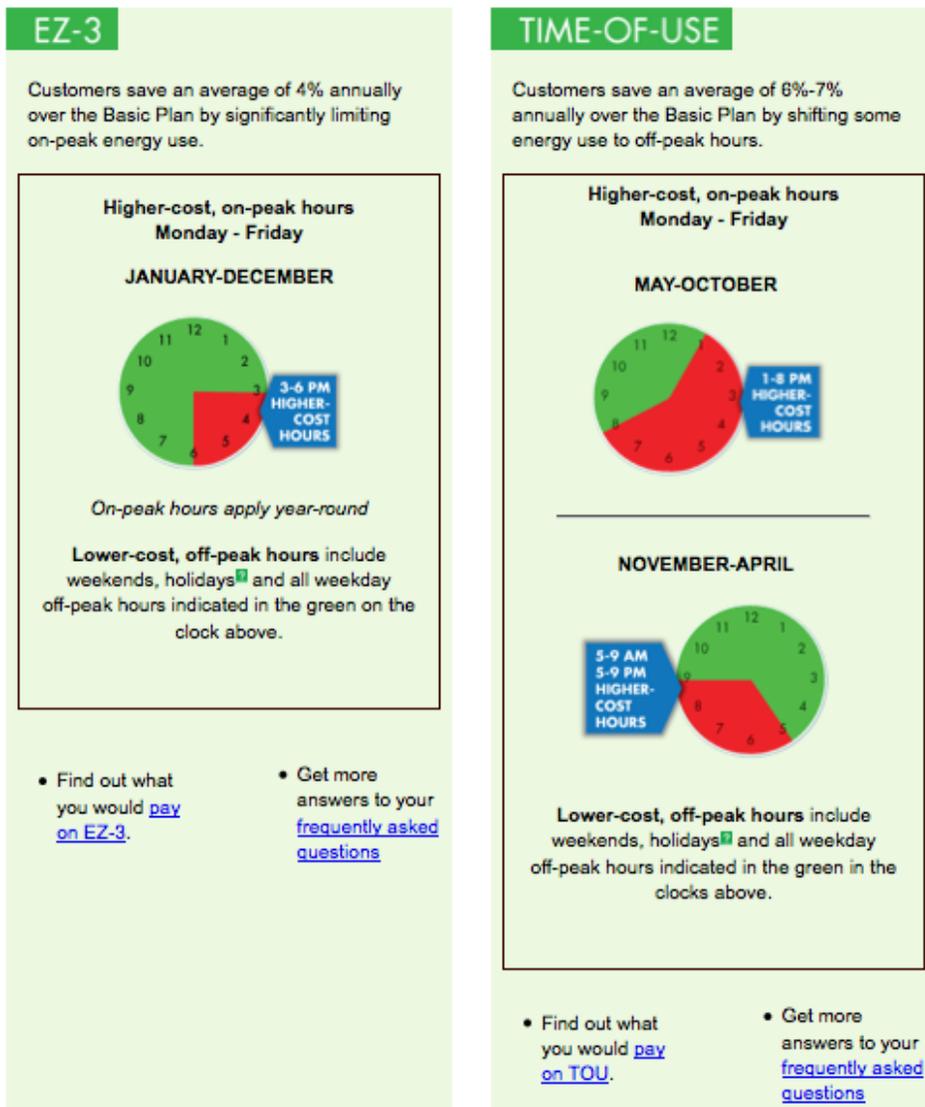
"Customers say they see SRP out in the community a lot. 'I see them at events. I see their volunteers out in the community.' So they recognize our community efforts. They also view us as offering variety. They know we are doing a lot around energy efficiency, and they'll refer to different rebate programs or information they've gotten in their bill on how to save energy. Sustainability comes up in conversations as well. They'll talk about hearing about our solar programs or our solar rebates.

Emary continues, "They generally bring up Time-of-Use, whether they know it by name or not. 'It's the program where you shift your energy use' or they'll talk about M-Power, and they might just say, 'that's the program where you prepay or where you get the card, and my neighbor has that.' They give examples of the pricing plans and the different billing and payment programs that we have. The feedback is generally very positive."

“SRP’s Time-of-Day Price Plans are completely voluntary,” explains Lowe. “We pass the savings onto the customer. We give them a 90-day money back guarantee. So if you call us after you get your third bill, and if you’ve paid more than you would have paid on the standard rate, we’ll rebate that and move you back to the standard rate that is an inclining block rate in the summer and a flat rate in winter.”

Most people are switching over to e-bills and with either format the monthly bill indicates what the customer would have paid if the household was on the standard rate. This allows customers to see how they are saving so they can adjust accordingly or switch to a different rate if TOU is not working for them (see Figure 1).

Figure 1. Simple visuals help consumers understand habitual rate plans and drill down to more specific comparisons for their household



Discussion Questions

—SRP’s experience suggests there is clear persistence of participation for over 40 years when people choose a rate that fits their lifestyle and priorities. Are programs like this one sufficient to reassure consumer advocates that pilot results can be extended over time?

—Even people who like specific programs often don’t remember the brand names. Are utilities over emphasizing catchy names rather than clear descriptions that more consumers can easily recall?

—What steps can utilities take to build good relationships with community-based organizations?

—If qualitative research confirms that customers see program choices and opportunities to improve energy usage to be part of a whole system, how might communication programs be designed to avoid reflecting internal silos?

—Discuss how the SRP example suggests that utilities can reduce pushback if customers feel they are choosing among programs and rates rather than feeling coerced into a plan.

—If you show customers the direct rate comparisons so they can choose what is best for them, can that translate to a greater sense of trust with the utility?

Experiments that didn’t fare as well

Not everything the utility has tried has been enthusiastically embraced. “SRP had a load cycling program in the early ’90s. We installed cycling equipment, would send a signal to the customer’s home, and cycle the air conditioner off for 20 minutes or so at a time,” Lowe recalls. “The conventional wisdom on that study result was that it was not well-received by customers. During the hot summers, when it is over 110 degrees here, homes can heat up very quickly. Instead our feeling has been to let the customer control their usage. We’ll just give them the price signal.”

SRP has seen some research that suggests that there is a group of customers—roughly 10%—who may prefer the remote cycling, now that it can be done more precisely with newer smart technology.

Daer explains that event-driven critical peak pricing (CPP) is currently only offered to industrial customers. “Response was tepid to residential CPP so we went to our EZ-3 TOU rate because it is habitual yet reduces peak load.”

Discussion Questions

—Just because something hasn’t worked in a service area before, should it be revisited when technology evolves to the point when it can be implemented with different capabilities?

—If smaller segments of the population prefer alternatives that engage them, is it worth offering them options? How significant does the impact on load need to be compared to the benefits of customer buy-in?

Design prepay programs as a “fair shake”

The prepay program, M-Power, was originally started in the mid-1990’s as a way to reach out to a large number of credit-challenged customers. It was viewed as a technology solution to make it easy for customers to pay bills and avoid deposits or high interest rates on credit cards to cover outstanding balances. The utility began collecting \$2,000,000 per month from customers who had previously been having trouble and call center volume declined significantly because there were fewer problems to resolve.

“Not only did we find that people viewed this a ‘fair shake,’” recalls David Daer, “it turned out that the snowbirds who reside in Phoenix in the winter don’t want a monthly bill or risk shut off when they are gone. It also proved beneficial for landlords and students who changed apartments frequently and had roommates to contend with.”

Given the state of the technology at the time, Mike Lowe felt that “on prepay, you’ve got to keep it simple. If they know it costs 10 cents an hour to run an appliance, at the first of the month, it ought to cost 10 cents a kilowatt-hour. At the end of the month, if it costs 10 cents a kilowatt-hour in May, it ought to cost 10 cents a kilowatt-hour in June.”

That perspective led the program team to design M-Power Prepay with a flat rate that is higher than a low-use customer on the basic plan. It uses a hedging rate for predictability and to make it easier to bill. Lowe explains, “We’ve got in our standard tariff that credit customers (non-prepay) pay inclining blocks. If you use more, you pay more at this time of year. We’ve got heavy seasonality, so you pay a lot more per kilowatt-hour in the summer than in the winter.

“There’s less seasonality in the M-Power rate. There is not a declining block, and so that can make comparisons to the standard tariff a little different. Historically, the prepay meter has been a more expensive meter. And so, on balance in our plan today, I think it’s about two or three percent more expensive, for us to serve a prepay customer than a credit customer.”

Discussion Question

—What are the trade-offs between predictable rates that reflect an average or hedged rate and tariffs that reflect the most accurate price to deliver service?

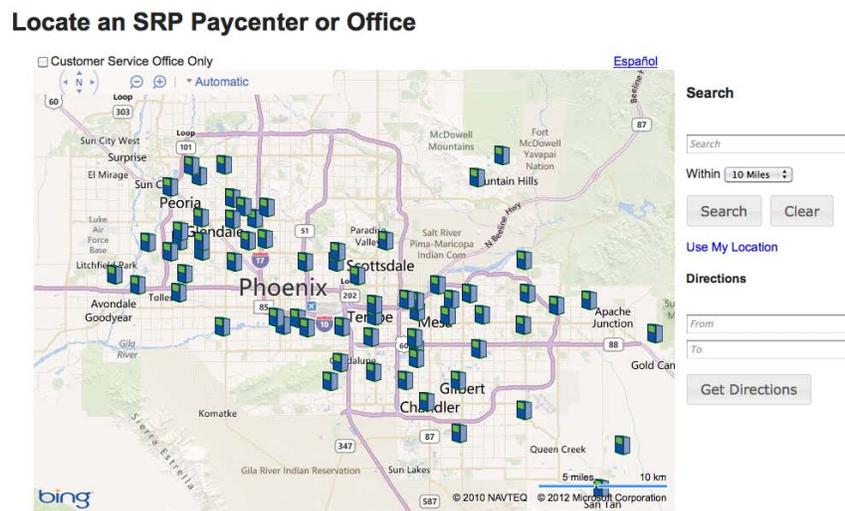
How does the prepay program work?

The utility presents the program on its website as a way to give the consumer “control over your budget and cash flow. Using an SRP M-Power® smart card, you can buy power when you want—in the amount you want,” as stated on the SRP website.⁴

⁴ To see M-Power program details visit <http://www.srpnet.com/mpower/>

After signing up for the program, residents load energy credits to smart cards, similar to prepaid phone cards, either with cash or with an e-Chex associated with their checking account. There are more than 110 SRP PayCenter machines located around Metropolitan Phoenix in grocery stores, convenience stores, and at SRP offices with some available 24 hours a day (see Figure 2). Both English and Spanish are supported.

Figure 2: An interactive map helps consumers find payment locations



A special meter is installed at the home and the resident receives an in-home display unit that can read the smart card and monitor energy costs, usage data, and the balance remaining on the account. It also gives an estimate of the days remaining based on the current usage pattern.

Customers switching rate plans, but not establishing service at a new address, are not subject to the \$30 turn-on fee. If the account runs out of credit, the meter will disconnect and the customer will need to make a purchase to restore power. If this occurs between 6 p.m. and 6 a.m., the meter enters "Friendly Credit" mode and runs into negative credit. If the account is replenished by 6 a.m. the following day, the negative credit amount is deducted from the purchase. Households on medical discount/riders are not eligible for this program.

Dena Emary describes the ongoing tracking satisfaction study with M-Power customers. "We have over 90% of M-Power customers who give either a very satisfied or satisfied rating when we ask them about the program. That tells us our customers are very happy with it.

"The reasons they say they're participating are that it gives them control over how they use their electricity, it's easier to start service because of the reduced deposit, and they can avoid the late fees or disconnects.

“They also feel like this kind of program could benefit a lot of other customers. They find they’re using their electricity more wisely and by becoming aware are using a lot less energy,” says Emary.

Discussion Questions

—Are there opportunities for co-marketing with other programs like nutrition education if prepay kiosks are placed in retail establishments? What if health food stores and produce departments were featured as locations?

—Does the relative simplicity of this feedback device and the emphasis on an energy budget provide insights into better interfaces for other consumers? How might it work for credit customers who prefer the predictable, budget billing approach?

Characteristics of a fair prepay program

“M-Power is offered to all residential customers. Currently 15% of our customer base is on prepay,” offers Lowe. “Within SRP’s service area, we have a lot of people who stay in territory just for the winter on the program as well as a lot of college students who return home in the summer. It’s not positioned in a punitive way. There are lots of people who like it. They pay a much lower deposit to get on it. We find the participants use less power over time. We view this as a way to keep the power on, rather than to disconnect.”

“We do not have a service charge no matter how many times a month someone adds money to their account,” says Dave Daer.

Lowe understands that the hedged rate is a big concern of consumer advocates. “We are looking at how we can run our prepay program on our smart meter platform. And, when we do that, I will be lobbying that the rate ought to be the same because it will be easier for people to respond to the changes.”

Consumer advocate Cynthia Zwick believes more families are staying more consistently connected. “I think families have more control over the thermostat than perhaps they did before. However, I can do all sorts of things as a customer to try to use energy at a certain time of day, to use this M-Power thing and really manage when I’m using electricity.

“But the reality is, some of it’s just going to be an inefficient use of energy because it’s going out wall cracks, doors that are falling off, and windows that are in disrepair. There’s a point at which all those programs really don’t make a lot of sense, because they just can do no more, without really doing something substantial to the home,” cautions Zwick. “That’s why weatherization programs are so critical.”

“There is a belief out there that the utility is the last bastion of easy credit for low-income customers and that we should do everything we can to keep the power on” says Mike Lowe. “We have done a number of things to help with that. If you get disconnected,

you have the option to go on prepay and pay off your arrearage over time. “We do see the prepay evolving to the point where the customer can combine TOU and prepay. We are actively considering taking our three-hour on-peak EZ-3 rate and allowing the customer to select within some narrow parameters when that three-hour period starts. Because it is to our benefit, we can further smooth out our load if some customers start it at 3:00 and others at 4:00 PM.”

“I do believe that meters that show you your usage provide a huge benefit. I think the ability for a customer to be able to monitor how much they have left and maintain electricity, rather than getting disconnected for whatever period of time, and then having to pay additional charges, is also very positive,” says Zwick.

“If with smart meters you could combine the programs and have people be able to take advantage of the lowest possible rate, and avoid the need for deposits, in addition to being able to do prepay, it would be a good thing.”

Zwick raises concerns when programs like M-Power are presented to regulators as conservation drivers. “ I’m not convinced that behavior to save energy is what’s driving participation in prepay programs. I think that many of the folks that are at a higher level of income who want to conserve energy have many ways to do that. I would argue that the folks that are in the lower income brackets that tend to be M-Power customers don’t necessarily have access to those same tools.

“The situation is a little bit different when you don’t have enough to feed your family, when you don’t have enough to keep the lights on as long or as regularly as you want. When you’re turning the AC off in order to take your medication, it’s a different proposition. It’s very rare in Arizona that you don’t have central air conditioning. So if you’ve only got a fan and you’re a senior, and I know this is a huge issue for AARP, because people can die out here if they don’t have AC.

“It’s disingenuous for utilities to claim a prepay program is a demand side management program in a rate case. Just call it like it is. If it keeps people connected in an affordable way, and the utility’s getting paid, and the power’s on in the house, then I think it’s worth it. Bottom line.”

Discussion Questions

- Is a prepay program with the same rates available to everyone, that does not penalize customers for frequent payments, a more palatable option for consumer advocates?
- Weatherization programs have additional benefits in terms of local jobs and conserving scarce energy resources. What can be done to engage landlords in this discussion?
- If people modify their consumption habits in a way that benefits system stability and is more environmentally sound, does it matter if they do it for reasons of cost savings or because they wish to give the utility less money?

Communicate benefits

Cynthia Zwick understands there are challenges the utilities and advocates share. “I appreciate the difficulty in communicating with customers. Because, frankly, before I got into this business, I didn’t read my bill insert, I didn’t really pay a heck of a lot of attention. I just knew I had to pay my bill and I did it.

“I do think all utilities could better articulate how their programs function and do better outreach around benefits that are available. SRP does a fairly decent job of it, but there’s a part of me that believes financially-challenged families are treated differently than regular residential customers.”

Zwick encourages all utilities to make stronger connections than occur today. “Partnering with community-based organizations, churches in particular, and other nonprofits is always a good idea. In outreach plans, for example, the marketing for these lower-income programs tends to be through agencies serving those families, which makes total sense.

“But we’re serving only one in 10 of the eligible population right now with our community action network. And last year we served 172,000 people. There are a whole lot of people who aren’t finding out about programs that probably could benefit them. More outreach around availability could be done.

“A point I made in a rate case recently is, especially now while the economy has tanked, we’re seeing people who heretofore were successful and paying their bills. They weren’t struggling in a way that we see people struggling today. They’re reading the same mainstream newspapers, magazines, watching television, the same way you and I are. Don’t treat them like they’re in a welfare office, because they’re not.

“I think mainstream media is important. All utility companies out here spend a ton of money on TV ads. And I get that a lot of it is just to tout the really great things about SRP or APS or whatever, but while there’s lots of Hispanic and Spanish media out here, I don’t know that from a utility perspective there’s that much going on in Spanish media to let families know about this.”

Discussion Question

—If people are going to have their rates discounted or service subsidized, do utilities and other ratepayers have the right to ask those families to participate in energy literacy education or question whether they are purchasing cable and other non-essential services?

Design tools that allow consumers to choose

Correcting that missing connection with the Hispanic community is why SRP Program Manager Monica Trujillo was asked to get involved in an exciting new project. “Time-of-

Use has been around for a long time, a lot of people mention it by name. The same thing with M-Power. Yet we knew that, particularly in the Hispanic segment, that there was a lack of awareness about what we had out there.”

The management team recognized the gaps, according to Lowe. “We rolled out a second time-of-day option that is more consumer-friendly than the one we started out with in 1980. Our primary Time-of-Use rate has a seven-hour on peak period. This other option has a three-hour on peak period. When we did that, we knew we needed a tool for the customer to help them select a tariff. We needed a tool for our employees to help the customer select a tariff.”

Trujillo recounts, “We started with an awareness campaign using collateral that eventually grew into a full multimedia plan to the entire marketplace. But it was also because we had a price increase pending and we had a new price plan we wanted to introduce. We wanted to make our customers aware of all the options that existed.

“This was at the time when the economy started to tank. Management believed we needed to get information into the hands of our customers so they felt like they had a choice. We were under pressure to develop ways to make this simpler. One idea was for an interactive tool that eventually evolved into the application you see on our website. It was meant to be a conversation starter to get customers thinking ‘there’s something else out there that could make sense for me.’

“Historically we had always gone after high energy users to sign up for Time-of-Use. But this time we decided to look at it differently, mostly because of M-Power, and talk about lifestyle. We wanted to communicate to customers that, depending on your situation, there could be a price plan out there that works for you. That was the key takeaway.

“At the time, the sign-up process was different. You had to call in. We still want our customers to call in and talk it over with us to make sure we put them on a plan where they will actually save money. However, this tool lets customers do preliminary investigation themselves.

“We’re finding that even small energy users can save money through these programs. Maybe the amounts are modest, but they’re certainly benefitting from being on the programs.”

Trujillo acknowledges it was a challenging project. “On one hand, you have pressure from management to give customers information at their fingertips. We are a service-oriented utility and there was hesitation that we might be giving customers wrong or inexact information. The whole idea of having something developed outside and then deploying it internally took a long time. It required a lot of collaboration among departments, and trust that our instincts could anticipate what customers would respond to in advance of the data. Management’s heart was in the right place and we all wanted to make sure the

customers had what they needed.” Figures 3 and 4 present an SRP price plan example and screen shots from the interactive online application, respectively.

Figure 3: The various plans are presented as options featuring factors that help people self-select⁵

Choose your price plan

TIME-OF-DAY PRICE PLANS

TIME-OF-USE
 This plan could be good for you if:

- Your August bill is \$200 or more
- You have a larger home or several people in your household
- You have a pool
- You can be flexible when using major appliances

TOU could save you up to 6% to 7% or more per year over the Basic Plan.
[Find out more about Time-Of-Day Price Plans and our 90-day risk-free guarantee.](#)

EZ-3
 This plan could be good for you if:

- Your August bill is \$135 or more
- You have a larger home
- You use major appliances daily
- You can limit or shift your energy use for just three hours

EZ-3 could save you up to 4% or more per year over the Basic Plan.

HERE ARE JUST A FEW OF THE MORE THAN 200,000 CUSTOMERS WHO'VE MADE THE SWITCH. [HEAR THEIR STORY.](#)

BASIC
 The Basic plan could be good for you if:

- Your August bill is less than \$135
- You have a small to average-size home
- Someone is often home during the day
- You use major appliances, but not on a daily basis
- You are a part-time resident

[Find out more](#)

M-POWER
 M-Power could be good for you if:

- You don't want a monthly bill
- You want to reduce and closely monitor energy use
- You want to eliminate any surprises
- You have roommates and need to split costs
- You prefer to pay as you go for energy

[Find out more](#)

Next steps

- Please see our [Price-Related Options](#) for details about SRP electricity prices.
- After selecting a price plan, you should [choose a way to pay](#) and [choose a billing option](#).

Need help choosing a price plan?
[START HERE!](#)

Take a minute to answer a few questions and discover how household energy usage can impact your bill.

⁵ This chart includes links to videos of actual customers on the programs: www.srpnet.com/prices/home/ChooseYourPricePlan.aspx

Discussion Questions

—Multi-lingual outreach is important yet it is challenging to implement well. What are ways this can be made practical?

—It's hard to predict behavior that is based on non-external factors or demographics. Given how much research there is looking at motivational patterns, why do utilities seem to be slow to adopt methods that allow customers to self-select?

—Providing guidelines for people based on size of the bill or the house is one path for choice. What are others that might be compelling?

—At SRP, the M-Power payment plan is presented in parallel with alternative rate plans, reinforcing it is available to everyone. Would new options enabled by the smart technologies currently being deployed by SRP provide an opportunity to position prepay as a payment option for all rate plans, like budget billing, e-billing, and traditional end-of-month paper bills?

New Technologies for Listening

"We are using new technologies to monitor how our name appears in Facebook and on Twitter. We engage with customer service issues that we are made aware of through those forums. We use it heavily for outage broadcasts. We use it to just publicize certain activities or things going on," says Mike Lowe.

"We've got about 6,000 followers right now on Twitter and a similar number on Facebook. So in the grand scheme of things, that's still very, very small. I understand we are one of the leaders in the utility industry in dabbling with this. And it is growing. It's just going to take some time."

Emary describes how online approaches are supplementing their traditional market research methodologies. "It's important to us to hear and see first-hand what our customers say. We use a combination of qualitative and quantitative techniques. We field about six to eight sets of focus groups a year. We have several ongoing quantitative tracking studies. We have a large corporate study that looks at all the different segments, both on the power side and the water side.

"We do some smaller tracking studies around specific topics or customer service activities. We have an online panel for the residential market that has over 10,000 customers on it, so we can very quickly go to them if we have a question or two. We can do something very brief and quick or we can do longer studies.

"If we're talking about Time-of-Use and we want some feedback on the program, we can talk only to that subset. Response rates are tremendous (over 40%) because these are people who have self-selected to be part of an ongoing research panel. So the results happen very quickly, within days of a survey going out. It's a very timely way for us to get input.

Figure 4: SRP has put tools in place to measure people visiting the interactive application. As of March 2012, it was averaging about 3,300 unique customer visits a month. Feedback has been very positive.



“We’ve started doing more online community research, where we have an ongoing dialogue with our customers on a specific topic. We also use a lot of secondary research sources including the J.D. Power research, E-Source and Chartwell.”

Other analysis and segmentation tools used by SRP include PRIZM, Cohorts, Geoscape, and Scarborough’s local market studies.

Discussion Questions

—It's very difficult to build critical mass for an online community or channel. What other groups can utilities leverage who already have large and active followings?

—Proctor & Gamble, often referred to as "masters of market research," encourages all their employees to talk to consumers directly. This first hand exposure to customer reactions allows them to better interpret their quantitative research results. What is your organization doing to make the issues consumers face more real and immediate?

Choice applies to dealing with the doubters

"We are hearing from people who don't want to have a smart meter installed on their home," Mike Lowe acknowledges. "We have responded to those requests with two opt-out options. The first is, anyone can elect to prepay. And prepay currently is not on a smart meter with a wireless radio.

"The second is on November 1, 2011 we rolled out an opt-out fee. For \$20 a month incremental, we will place a traditional analog meter on your home. We will read it every other month. And, so in effect, we're charging \$40 per field visit, which covers our cost. SRP is absorbing the cost to change out the meter. We have had only a handful of customers take us up on the offer.

"We recognize that if you feel strongly about electromagnetic radiation we are not going to convince you otherwise. Rather than deal with escalating calls throughout our organization, it's cheaper to offer you the option. We're not going to get that many such that it will jeopardize the communications infrastructure we need for a mesh radio system. It's better to just let them go.

"We also have a 'do not contact' list. We send these customers legal notices but nothing else. It's part of our DNA to give these consumers the choice."

Discussion Question

—If people who choose to opt out represent only a tiny fraction, is it ultimately less costly on all levels to make this as simple as possible?

Choices for the future

Cynthia Zwick muses, "I don't know if there are other solutions that we're not thinking about yet to protect vulnerable families when they really don't have the capacity or the resources to maintain their utility service. I just have this fundamental belief that they deserve to be safe. And how do we as customers in a utility get to that point? I also have the very strong belief that the utility needs to be healthy. So I get that they can't just totally give their services away. But I do think there's got to be some sort of mutual responsibility.

“So I’m looking forward to the day where I can go into the utility corporation commission, or the SRP board of governors and say, ‘the economy’s turned around, people are doing a lot better, go for it. Increase the rates. Low-income customers who have been protected now have enough options that a small increase is certainly reasonable.’

“The whole world is evolving, and the utility industry is evolving. How do we accommodate the changes that are clearly happening so that the vulnerable folks that we’re concerned about get a fair shake?”

Discussion Question

—What obligations do we have as a society to protect vulnerable consumers?

Observations of the Author

The objective of this narrative case study is to allow readers to decide for themselves what lessons learned at SRP might have applicability to them in their work. Using the narrative style, not all of the data, details, etc are presented here and readers are encouraged to examine additional information available on the SRP website and in some of the other resources below.

From the standpoint of the author, several different observations can be made:

1. Pricing programs will continue to evolve as smart meters are deployed.
2. The ability for individual households to choose a program that appeals to them results in increased satisfaction levels.
3. Encouraging employees to listen directly and respond to customers leads to creative solutions.
4. Prepay and TOU programs appear to can benefit low-income consumers if the right policies are in place.
5. Randomized controlled trials have for the most part been used to determine program and technology impacts. Additional trials and rollouts might examine customer satisfaction with different rate options and how they align with residential customers segments and their respective commitment to energy savings.

Other case studies about SRP

EPRI: Paying Upfront: A Review of Salt River Project’s M-Power Prepay Program (www.srpnet.com/environment/earthwise/pdf/.../EPRI_MPower.pdf)

Vermont Law School, Environmental Law Center, Institute for Energy and the Environment (http://www.vermontlaw.edu/academics/environmental_law_center/institutes_and_initiatives/institute_for_energy_and_the_environment/ongoing_research_projects/smart_grid_project.htm). *Anticipated publication in June 2012.*

Juergen Hoehne of IBDS Consulting provided background information on prepay for this paper.

About the author

Judith Schwartz is an entrepreneur, marketing strategist, and communications professional on the forefront of sustainability issues, the Smart Grid, alternative energy, and the digital home.

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