

› White Paper



## How Analytics Reveals New Utility Customer Value

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For the first time in the history of regulated utilities, the chief marketing officer has become visibly relevant. The reason? Because customers present one of the quickest paths to revenue. With that in mind, designing and carrying out an effective customer engagement strategy is now the chief objective of many utility CEOs.

To reshape the customer experience, utilities must first understand their customers intimately. Only then can they develop new avenues for customer engagement and build programs and services that redefine them as trusted energy partners.

To this end, customer-facing processes have become one of the hottest areas for analytic applications at utilities - whether they're trying to reduce churn in competitive markets or elevate customer satisfaction rankings in regulated markets. But the complexity utilities have built into their processes and technologies over the past few decades make customer engagement and analytics adoption more perplexing than most imagine.

While utilities have made incredible progress, research from the Aberdeen Group<sup>1</sup> shows how much farther utilities can move toward personalized customer experience - and what benefits await those who move boldly ahead. In some cases, utilities can learn from peers that have gone before them. Some may leapfrog tried-and-true email customer engagement applications to adopt the next level of mobile and social strategies.

The Aberdeen Group research, along with other data from utilities around the world, informs our perspective about current trends and best practices in customer analytics for today's energy providers.

In 2012, 73 percent of utility companies had a customer analytics initiative compared to 84 percent in 2014.

- Customer Analytics Report, Utility Analytics Institute, April 2014

## Becoming a Trusted Energy Provider

Until now, utilities have inherently thought of customers as "rate payers." That's because nearly all of the interactions between utilities and customers related to mailing a bill and collecting timely payments. This mentality created a significant barrier of mistrust when a utility wanted to become a trusted adviser. This sort of transition doesn't happen overnight.

Smart meters have played a significant role in enabling this transition. With granular data about energy usage, utilities can give customers more value in the form of information. The information can spark different cost-saving behaviors, particularly for high-energy consumers like industrial and commercial customers. Even residential customers can make more informed decisions about their finances by knowing, for example, how much they can save doing laundry at off-peak times. And since energy bills are no longer based on manual meter readings, they're accurate. This gives consumers more trust when you offer them a customized rate plan. Just like that, you've become a trusted energy adviser.

Well, maybe not quite. Consider mobile technologies and social media. Utilities are not engaging through digital channels at the speed of retailers or banks, but some offer mobile payment options and most have some social media presence. Still, to transition to being trusted energy providers, utilities will need to go beyond smart meters and connect with the consumer at different decision-making points.

Utilities must be prepared to help consumers make decisions that affect their energy footprints, such as purchasing an electric car or solar panels, or integrating in-home technology to control devices like HVAC units, washing machines, dryers, dishwashers and lighting. And feedback to customers must be immediate so they can make informed decisions about how to control their energy-dependent lives. To put this valuable insight at the consumer's fingertips, utilities will have to rely on digital channels, including smartphones and social media.

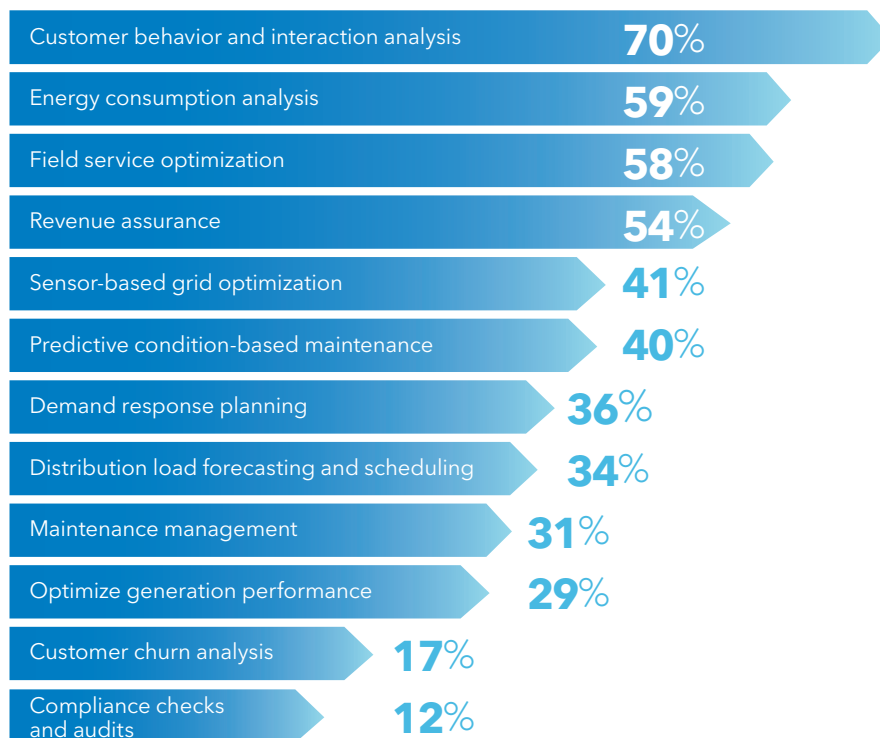
<sup>1</sup> See Appendix for infographic and link to full Aberdeen research (syndicated on sas.com).

Smart meter deployments are only one way to initiate a more personalized customer experience. Not all utilities have progressed very far with smart meter deployments – some aren't even headed down the smart meter path. These utilities can rely on third-party sources like demographic databases, contacts, social sentiment analysis and surveys to help them understand customers' behaviors and satisfaction. In fact, using social and survey data, Ameren<sup>2</sup> discovered that the perception of reliable power is as important to the utility's public reputation as actual reliability.

## Energy Provider Becomes Energy Marketer

To push business growth over the next decade, the traditional utility business model will shift away from total reliance on asset investments. To succeed in this era, utilities will need to adopt a strategy that monetizes each customer relationship. Regulatory drivers reinforce this shift – including 2020 initiatives and EPA

### Western European Utilities' Use of Big Data and Analytics



Source: IDC Energy Insights Survey, October 2013

**Figure 1:** Across Europe, the deregulated market has forced utilities into a competitive business model similar to telecommunications providers and banks. So it comes as no surprise that the top use case for big data and analytics among Western European utilities identified by IDC is “customer behavior and interaction analysis.”

emissions goals – as well as broader financial drivers, such as reducing churn in competitive retail markets and ongoing O&M cost pressures.

One of the best ways for utilities to embrace new opportunities will be to form partnerships with customers. Partnerships provide the opportunity to stabilize revenues, collaborate with customers, meet or exceed new regulatory standards, and embrace renewables technologies that currently threaten net income. With a better understanding of customers' behaviors, desires, actions and reactions, enrollment and participation, utilities can achieve their goals.

A report by Bain & Company reinforces the priority of customer analytics. “Customer loyalty has become critical for utilities at a time when margins are under pressure and customer acquisition costs and churn rates are rising.”<sup>3</sup> As such, it's critical to understand the lifetime value each customer presents. That value, coupled with a significant uptake in customer-owned distribution generation, means the markets have to adapt to further revenue impacts from an energy consumption perspective.

Since the cost of acquiring new customers is increasing, the best ways for utilities to improve profitability are to reduce churn and determine whether customers are participating in the programs that best fit their energy consumption profiles. Analytics provides a framework to monitor, measure, react to, optimize and predict the impacts and changes sparked by customer behavior.

The Bain research also found some interesting comparisons between how customers engage with utility companies versus other industries. For example, customer advocacy was lower for utilities than for other industries, judging by net promoter metrics. Even the best customers of a utility were not as likely to promote the utility as the best customers in other industries. And while detractors focused on price, promoters focused on brand image and service.

<sup>2</sup> Mark Konya, P.E., Ameren Missouri and Kathy Ball, SAS. [Customer Perception and Reality: Unraveling the Energy Customer Equation.](#)

<sup>3</sup> Bain & Company Inc. [Turning on Utility Customer Loyalty.](#) 2012.

## Challenges to Utility Marketing Nirvana

For utilities, data not only spews from sensors installed in smart grid assets, it emanates from smart meters themselves. You can analyze that interval meter data to predict future customer behaviors - but only if you can get the right data into the right hands at the right time. To do it, the partnership between CMO and CIO becomes paramount.

It's no longer acceptable for IT to tell marketing it can't have its data. And marketing can't continue to purchase point solutions that generate data in the name of customer analytics while in reality the solutions offer nothing more than scaled-back, niche CRM functionality with rules engines. The CIO and CMO must work together to create a customer intelligence architecture that facilitates:

- Easier integration of data from disparate systems.
- Lower costs of ownership for multiple customer systems.
- Customer analytics solutions that can reuse existing marketing optimization, automation and next-best-offer capabilities.
- Customer-facing portals.
- Omnichannel marketing integration.

The Utility Analytics Institute (UAI) recently asked US utilities to rank challenges they face with their customer analytics initiatives.<sup>4</sup> When they conducted the study two years ago, data availability was second on the list of challenges. Now it's the top challenge facing utilities, with more than 38 percent of survey participants indicating they cannot get enough data to accomplish robust customer analytics initiatives. Despite growing data volumes, utilities report a lack of data availability for customer analytics. This indicates that data silos are still very real for utilities. Senior business leaders must work to deliver on the promise of a more integrated enterprise.

The same UAI report says, "Many utilities are also still struggling with the availability of personnel and skills to effectively take on these analytics projects. Although it decreased slightly during the reporting time frame, **24 percent of utilities report that the lack of necessary skills and staff is still the top challenge for their customer analytics initiatives.**"

Many industries have more mature customer engagement processes than utilities because these processes have been

Analytics talent is in high demand today, in nearly every industry. New programs for Masters of Science in Analytics<sup>5</sup> are producing sought-after graduates, each with multiple job offers.

core to their organizational success for decades. Such industries also benefit from more modern customer systems that incorporate mobile and social technologies. And they're in a better position to attract workers with appropriate analytical skills. In this competitive job climate, utilities will have to consider new strategies to recruit and retain appropriate analytics talent.

## Designing a Win-Win Customer Strategy

Utilities that get ahead in today's environment need to employ a winning combination of three customer strategies.

- **The first win is for the utility.** Utilities can monetize customer engagement to meet corporate objectives by shifting customer behavior to maintain profitability for the utility while still achieving emissions targets. They can do this by embracing or modifying customer behavior in a thoughtful way - a way that offers greater revenue potential at more profitable times and helps lower emissions.
- **The second win is for customers directly participating in certain programs, products or services.** Participation can benefit each customer by enabling lower consumption, fewer environmental impacts, more attractive rate programs during specific times, or improved efficiency through managed energy use.
- **Win No. 3 is for the entire customer base.** By encouraging customers to change certain behaviors, all customers can enjoy lower energy costs - even those who don't directly participate in special offerings. With modified customer behavior, utilities can manage loads better. They can use less purchased energy versus generated energy, and they can generate energy at more profitable times of the day. They can also reduce CO2 footprints, eliminating the need for large capital investments. All of this makes for better overall rates in the utility's geopolitical area and fosters business development opportunities.

<sup>4</sup> *Customer Analytics Report*. Utility Analytics Institute. 2014.

<sup>5</sup> Institute for Advanced Analytics. [Graduate Programs in Analytics](#).

## Optimized Marketing, Optimized Experience

To use constrained marketing dollars efficiently, utilities need to think outside of traditional customer programs. Analytics can help by prioritizing the channels to use for each customer and each offer. Utilities also need to re-evaluate the metrics used to measure marketing effectiveness by looking at them from the perspectives of sales, customer operations, regulatory affairs and finance. That's because marketing success is now tied closely to the overall performance of the utility company.

“Combining data from both marketing and finance, analytics reveals the true picture of what drives marketing performance, and connects marketing to revenue.”

- Harvard Business Review<sup>6</sup>

Regulated utilities typically have limited marketing budgets due to lack of regulatory recognition of the need for marketing and the absence of direct competition in residential and small commercial segments. This leaves most utilities in a quandary - so they take money from profits (that is, earnings per share in the case of industry-owned utilities). Some progressive public utility commissions in the US allow recovery for marketing programs that help the utility meet specific goals related to energy efficiency, demand response programs and environmental impacts. But the option to recover revenue losses from these programs may soon disappear.

With so many geopolitical areas raising costs due to smart grid deployments and higher labor and asset costs, customers' elasticity to keep absorbing higher costs is about to end. Customer analytics will be crucial to ensuring that utilities can find a way to recover for these initiatives - and, in some cases, monetize them and remove the need for customers to subsidize them.

### EDP España<sup>7</sup>

- **Challenge:** Recover customers who chose to switch companies, understand what led to their departures and design marketing activities to regain their business.
- **Solution:** SAS® Marketing Automation.
- **Benefits:** EDP España achieved a customer recovery rate of more than 80 percent, electricity customer loyalty of 95 percent and 80 percent loyalty among gas customers.

Even regulated utilities with small marketing staffs have built a business case for investing in customer analytics. They've done it by articulating the need to build better relationships with customers, to target markets based on behaviors, to correctly construct programs and to look at new dynamic market segments. Customer analytics can be vital to achieving those goals by helping the utility:

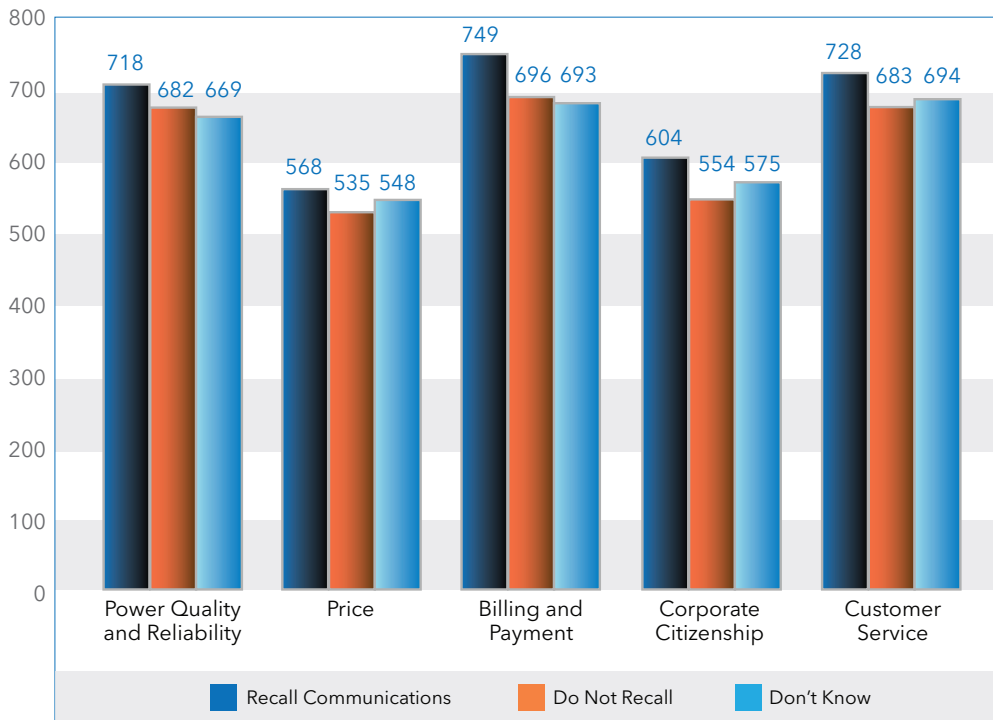
- **Optimize marketing spending.**
- **Develop new or enhanced customer segmentation** by combining smart meter interval data and CIS data to create dynamic segments.
- **Manage multiple customer channels** by creating new, better customer experiences that promote knowing the customer.
- **Manage customer experience** by enabling better net promoter scores, which is key for utilities with low marketing budgets.

By taking charge of these four areas, utilities will be primed to better target, better serve and better deliver products and services - prompting much improved customer satisfaction.

<sup>6</sup> *How Big Data Brings Marketing and Finance Together*. Wes Nichols, Harvard Business Review. November 2014.

<sup>7</sup> [sas.com/en\\_us/customers/edp-espana.html](http://sas.com/en_us/customers/edp-espana.html)

## Communications Affect Other Areas of the Customer Experience Index



**Figure 2:** Across all categories, J.D. Power found that customers have higher satisfaction with their utility when they recall utility communications.

## Finding Customer Satisfaction

Utilities don't always find it easy to keep their customers happy. That's why J.D. Power and Associates recently released two studies, the [J.D. Power 2013 Electric Utility Residential Customer Satisfaction Study](#) and the [J.D. Power 2013 Electric Utility Consumer Engagement Study](#) that tracked customer satisfaction and engagement. The studies found that customers' **awareness** of energy programs offered by the utility and their subsequent **participation** in those programs were key to making utility customers happy.

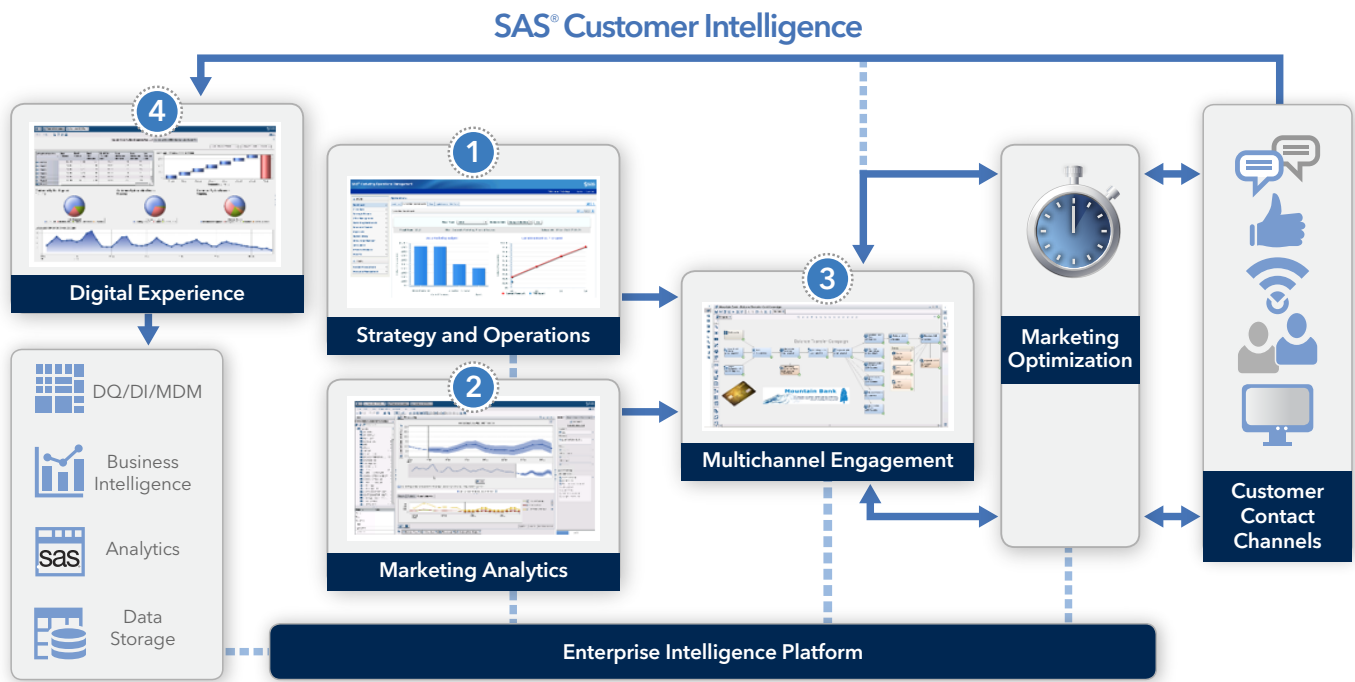
In the residential customer satisfaction study, utility customers rate 101 points higher (out of 1,000) on price satisfaction if they are "very familiar" with their utility's energy-saving programs than if they are only "somewhat familiar." The study found a direct correlation between customer satisfaction, engagement and participation in their utility's energy management program:

- Customers who participated in at least one of their utility's programs had an average satisfaction score of 679 on a 1,000-point scale.

- Customers who were aware of but did not participate in their utility's programs had an average satisfaction score of 642.
- Customers who were not aware of their utility's programs had an average satisfaction score of 582.

According to the customer engagement study, the programs with the highest awareness rates were electronic bill statement and payment programs. These programs were at 53 percent, far above in-home energy audits and Energy Star appliance rebates, which were the second- and third-place programs, both at 28 percent. According to the residential customer satisfaction study, customers who received an electronic bill rated 745 on the 1,000-point satisfaction scale compared to 709 by those who received a paper bill.

Jeff Conklin, Senior Director of the Energy Utility Practice at J.D. Power, concludes, "Creating awareness and motivating customers to engage with new energy programs, products and services is a huge opportunity for utilities to improve customer satisfaction. Customer satisfaction is higher when consumers are merely aware of programs, and then satisfaction increases substantially with each additional program a consumer joins."



**Figure 3:** Customer intelligence solutions from SAS combine award-winning data management, marketing solutions and advanced analytics to optimize utilities' communication with customers across multiple channels.

## Customer Intelligence From SAS

Through thoughtful design and investment in proven technologies, utilities around the world have successfully implemented analytical marketing systems that complement existing CIS systems.

The need for the SAS Customer Intelligence suite in the utility space is directly tied to the utility's objectives and strategy. Utilities that can benefit most are those embarking on demand response programs or energy efficiency programs, along with those trying to change their relationships with customers and become a trusted energy adviser. With SAS, these utility companies will find they can target the best products and services to assist customers in making better decisions about energy usage.

The utility of the future will need to understand customers individually, beyond the traditional household segmentation and rate categories. But not all utilities are regulated alike, and customers in different geographies don't all behave the same way. Pricing or environmental factors may influence customers' adoption of various offers in one region more than in others.

Using sophisticated marketing analytics, utilities can automate a series of campaigns to target those who are most likely to benefit from the energy program and most likely to respond.

With these strategies, powered by proven analytics, utilities will reach the new energy consumer and take another step in the journey toward becoming a trusted energy adviser.

## For More Information

Read *Customer Engagement Analytics: How to Use Data to Create (and Keep) Happy Customers*.

Learn more from J.D. Power energy and utility industry experts: [jdpower.com/energy-solutions/electric-and-gas-utilities](http://jdpower.com/energy-solutions/electric-and-gas-utilities).

Find out how SAS can help you become a trusted energy provider: [sas.com/utilities](http://sas.com/utilities).



# Appendix

View this infographic at [sas.com](http://sas.com).



## What Customer Engagement Strategies Work for Utilities?

Today's consumer expects timely and contextualized service from all organizations – including utilities.

### Challenges Utilities Face



#1 challenge is meeting and exceeding customer needs across all channels



6% of Companies are extremely satisfied with their ability to use data to improve the customer journey

Deriving insight from large data volumes is a continuous struggle for organizations.

### Analytics Can Be Enlightening



# 2.8X



greater year-over-year improvement in annual company revenue

# 4.1X



greater year-over-year increase in revenue from net-new customers

# 5X



greater year-over-year increase in # of positive social media mentions

# 22.4X



greater annual improvement in customer win-back rate

Establishing an omni-channel program using customer analytics helps utility companies deliver consistent, personalized and timely messages across all channels.

### Those using customer analytics are...



more likely to segment their consumer base by numerous criteria



more likely to analyze customer data to optimize product/service bundles for consumers



more likely to integrate customer data across enterprise systems to deliver consistent message across multiple channels



more likely to determine the relevant KPIs indicative of success in their omni-channel interactions



Utilities capture customer data across multiple channels; however that's not enough to maximize customer experiences.

They must use analytics as a key enabler to convert data into insights and then tie those insights together in order to deliver consistent, personalized and timely messages to each individual.



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