



**FROM CUSTOMER SERVICE TO CUSTOMER ENGAGEMENT :**  
Are Utilities Prepared for the Smart Grid Experience?

White Paper  
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# From Customer Service to Customer Engagement: Are Utilities Prepared for the Smart Grid Experience?

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## WHITE PAPER

Sponsored by: TELUS

Jill Feblowitz  
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Lars Goransson

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## IDC ENERGY INSIGHTS OPINION

Forces in the new energy economy are coming together to drive utilities to adopt new ways of serving their customers. Utilities, regulators, shareholders, credit rating agencies, and customers are examining strategies such as renewable energy, energy efficiency, and demand response. At the same time, retail providers are providing new product offerings. New technology, such as smart metering, energy management applications, and smart appliances, is changing the way utilities will be interacting with their customers. But are utilities ready for these changes and the implications for customer engagement?

To determine business readiness, IDC Energy Insights conducted interviews with senior business and IT personnel at 60 large utilities in North America. Major findings from the study are:

- Utilities are preoccupied with the implementation of physical infrastructure and have not thought through the implications of new technology and products on customer relationships or the business process.
- Most utilities have experienced or are expecting an increase in call volume or duration with smart metering, dynamic pricing, and energy efficiency scale-up. Forward-looking companies expect automated connect/disconnect to generate calls.
- With the introduction of smart metering, the customer is expected to spend more time interacting with the utility on the Web; however, there has been little investment in customer contact aids such as live chat or training of customer service representatives to walk customers through the Web experience.

Careful planning and preparation will help ease the transition to the new energy economy. Key recommendations include:

- Develop a strategy for service planning, development, and delivery, and look to other service industries, such as telecommunications, that have already adopted new technologies and service delivery methods.
- Expand customer engagement strategies — customers will engage using multiple communication channels, including smart phones.
- Develop a customer experience management practice that is part of a strategic marketing plan. Use analytics to develop new customer segmentation based on geo-coding, lifestyle, and consumption patterns. Match the multiple touch points and technologies with new customer segmentation and customers' preferred communication channels.
- Deploy pilots to assess blended communications to serve customers. Focus on the customer experience using tools provided via the Web portal and determine what other live interaction will be needed to complete the experience.
- Consider partnering with experienced service providers. Evaluate outsourcing and training options to help the utility move from customer service to customer engagement.

## **IN THIS WHITE PAPER**

This White Paper reviews the changes in customer relationships, business processes, and systems that utilities will experience with the introduction of smart metering, demand response, energy efficiency, buy-back of distributed generation, and other new initiatives. Findings are based on primary research conducted with business and IT personnel at 60 large utilities in North America, as well as secondary research.

## **SITUATION OVERVIEW**

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### **Current Business and Regulatory Environment**

A number of forces in the new energy economy are coming together to drive utilities and retail providers to adopt new ways of serving their customers. Concern about climate change has driven utilities, regulators, shareholders, credit rating agencies, and customers to examine strategies for the future such as renewable energy, energy efficiency, and demand response. Demand response can also be a way

to postpone significant capital investment in generation plants or network capacity. At the same time, retail providers are seeking to provide their customers with new product offerings. Not only are there new demands, but also the introduction of new technology, such as smart metering or advanced metering infrastructure (AMI), personal energy management applications, and smart appliances are changing the way utilities will interact with their customers.

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## **Engaging the Customer to Change Behavior**

### ***Smart Metering Changes Everything***

The introduction of smart metering or AMI provides a means to deliver and display consumption data directly to the customer. To date, most customers saw their historical consumption printed on the utility bill. The more cutting-edge utilities provided customers with tools to view disaggregated consumption by end-use appliances. Now, the opportunity exists to present consumption data directly from the meter to the customer via in-home displays or the Internet. The customer can see not only monthly consumption but also data for fine intervals during the day, such as readings every 15 minutes. The data may be displayed in charts and graphs, making it easier for the customer to understand. The more sophisticated customer presentations will provide tools that customers can use to see what their appliances are consuming and provide ways those customers can manage their energy usage. Customers may also be able to see how those reductions impact their energy bill or carbon footprint or how their own energy consumption compares with other households in their community.

### **Implications for the Business Process**

Smart metering means a major shift in the way utilities communicate with their customers. It will bring more communication channels to the customer such as Web portals and in-home displays. The interaction will be made richer through graphical displays and tools for energy management. In the early stages (pilots and new implementations) there will need to be adjustments in the business process and the channel to accommodate what has been learned from use of the new technology. As AMI installations rollout system-wide, customer service representatives and account representatives will be called on to walk customers through the new technology and answer more complicated questions.

*Smart metering means a major shift in the way utilities communicate with their customers.*

### ***Scale-Up of Energy Efficiency and Demand Response***

With stimulus and federal energy money and more state systems benefits funds going into energy efficiency, many utilities are looking at what must be done to scale up and handle increased customer participation. According to the Consortium for Energy Efficiency, "Utility funding [for energy efficiency in 2009] increased 35% over

the \$4.5 billion committed in 2008. Not including onetime U.S. stimulus funding directed to energy efficiency, the U.S. totaled \$5.3 billion, doubling from \$2.6 billion in 2006. Eight Canadian provinces together reached \$800 million, a small reduction from 2008, but showing growth from the 2007 total of \$600 million." Utilities have always supported energy efficiency programs, but at a much smaller scale and scope. Energy efficiency programs have typically been housed in the marketing business units of the utility and now utilities will need to expand marketing efforts and "sell" to the customer.

At the same time, there is a move to expand the use of demand response programs. Utilities with constrained delivery capacity are already using demand response to incentivize customers to reduce the consumption of energy during periods of peak demand. Now demand response is being considered as part of the business case for AMI. The concept is that with demand response, peak demand can be managed so that additional generation will not need to be built or dispatched, thus reducing emissions.

### **Implications for the Business Process**

With energy efficiency and demand response programs, customer interaction with the utility is expected to increase. Marketing will extend beyond limited populations to more of the utility service territory. Utilities will start using more out-bound communications to encourage their customers to enroll in order to achieve savings and reduction targets. Utilities will use multiple forms of communications to reach their customers, including interactive voice response (IVR) and Web portals. Energy efficiency programs, especially those involving on-site work, will require more customer interaction. Customers will inquire about enrollment, reschedule on-site installation visits, inquire about completion dates, question bills, and ask about incentive payments.

*With energy efficiency and demand response programs, customer interaction with the utility is expected to increase.*

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## **Offering New Products to Customers**

### ***Exotic Pricing***

Many energy and utility companies are starting to offer their customers non-traditional products. The major new products come in the form of the traditional commodity — electricity, natural gas, water, propane, and so forth — and are priced differently. For regulated companies, these may take the form of critical peak or dynamic pricing. For retailers, these products come in many different forms, as the retailer is not tied to rates. The expectation is that with the introduction of smart metering and interval reads, there will be more options for pricing and pricing will become more complex.

## ***Buyback of Electricity From Customers***

Some regions have now made provisions for net metering, in which the utility buys excess capacity from customers that have onsite generation such as wind and solar. Another form of "buyback" is demand response, in which utilities pay customers to reduce consumption in times of tight capacity or high market price.

## **Implications for the Business Process**

New pricing based on interval meter reads will substantially change the meter-to-cash process. The traditional meter-to-cash process involved a monthly charge based on a monthly read. The meter reader read the meter, the meter data was entered into the system, the Customer Information System (CIS) calculated the bill, the bill was printed, the customer received the bill usually via mail, the customer contacted the utility by phone with questions, the utility received (or did not receive) payment, and the account was credited.

*New pricing based on interval meter reads will substantially change the meter-to-cash process.*

With smart metering and time-based pricing, the creation of the bill depends on interval data collected at the meter. The data is transported via communications networks back to head-systems at the utility and cleaned by the meter data management system (MDM). The MDM feeds billing determinants to the CIS, which calculates the bill. Instead of having one monthly bill segmented into various charges, such as transmission and distribution and supply, the customer now sees the bill also divided into time buckets, with different charges for each time segment, much like a telecommunications bill.

As billing becomes more complex, there will be more inquiries about bills. According to one utility, "There are bound to be questions from customers when going from monthly reads, some of which are estimated, to billing based on hourly intervals. Add in on-demand reads and there is a potential for more questions."

As new pricing is introduced, there will be more interaction with the customer to explain the billing charges. This will be the case when the pricing schemes are new or the utility buys back distributed generation from a customer's photovoltaic array. According to one utility, "Most of the pricing schemes being discussed right now require a degree in economics to figure out. Utilities that can come up with simple offerings, such as the green rate, the cheap rate, or the "I don't care" rate, will be better off." Utilities will need to be prepared to respond to billing inquiries whether this is through tools on the Web site and/or customer interaction with contact centers via phone or email.

Utilities will need to consider outbound communications as well. In competitive markets, the availability of a greater variety of products enabled by AMI will mean more sales interaction — both proactive and reactive.

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## **Change in Revenue Assurance**

### ***Automated Connect and Disconnect***

The economic situation has put a greater burden on utilities for revenue assurance. The installation of smart meters will provide a wealth of data to utilities to assess and forecast their customers' ability to pay. More immediately, it will help the utility to identify potential revenue leakage through theft or tampering in record time compared to existing manual systems. What is likely to have the greatest impact on the customer, however, is that the utility will now be able to disconnect and reconnect the meter more quickly than ever. In the case of moves, that means that the utility will lessen the period of potential usage that goes unpaid. For non-payment, disconnection can now occur more quickly, depending of course on regulations in the region. Customers that have in the past been able to delay payment may now be faced with disconnection more quickly.

### **Implications for the Business Process**

Remote connect/disconnect and disconnect/reconnect will require a re-education of the customer. This may take many forms, such as general public education and outreach. It may also necessitate that utilities provide an automated outbound notification by voice, mail, or email to customers of possible shut off, depending on the jurisdiction. In any event, since it has taken a lot longer in the past to "pull" a meter, customers who are remotely disconnected due to non-payment will be surprised. Of course, the time it will take to reconnect, based on when the customer's payment hits the billing system, will be shortened as well. Forward-looking utilities are anticipating additional call volume and extended call duration for the first two years after smart meter deployment to handle disconnect/reconnect.

*Remote connect/disconnect and disconnect/reconnect will require a re-education of the customer.*

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## **Survey Findings**

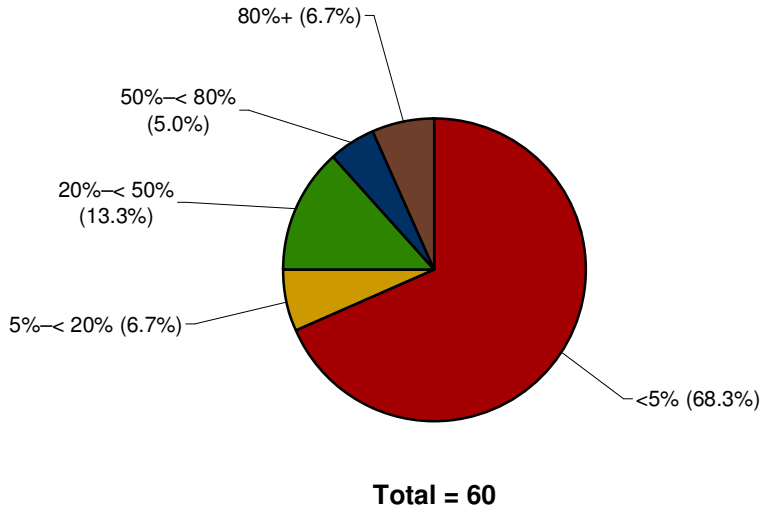
### ***Major Initiatives***

Most utilities surveyed have barely begun the rollout of smart metering, although deployment is expected to be rapid. About two-thirds of respondents have meters deployed to less than 5% of their customers (see Figure 1).

**FIGURE 1**

**Smart Meter Deployment by Percentage of Customers**

Q. How many smart meters has your organization currently deployed?



Source: Energy Insights, 2009

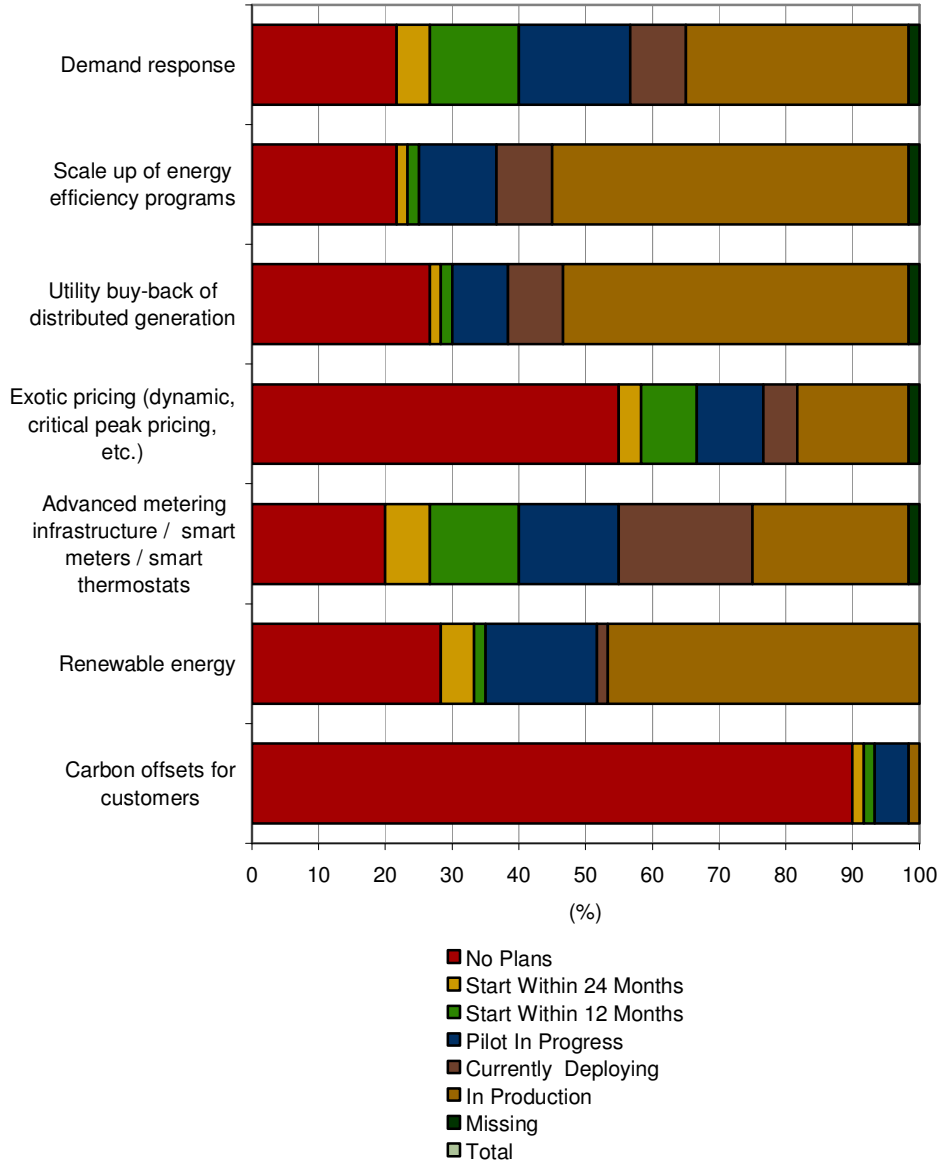
However, the deployment of smart metering is fairly rapid. By 2012, 50% of utilities expect to have smart meters fully deployed (see Appendix, Figure 14). Still, there are laggards: one-third only expects to be fully deployed in 2015 or beyond.

Smart metering, renewable energy, utility buy-back of generation, and the scale up of energy efficiency programs and demand response are a reality for most utilities. As can be seen in Figure 2, AMI and smart thermostat implementations are in full swing.

**FIGURE 2**

Key Initiatives at Respondent Utilities

Q. What is the status of \_\_\_\_\_ initiative in your company?



Source: Energy Insights, 2009

Most utilities are already in production with renewable energy, utility buy-back of distributed generation, and scale up of energy efficiency programs. About 41% of companies are deploying or are in production with demand response programs, with another 38% either piloting or in the planning stage.

### **Exotic Pricing is Still in the Early Stages**

Exotic pricing schemes such as dynamic and critical peak pricing are moving into the mainstream. About 21% of utilities are deploying or in production with dynamic pricing schemes, with another 21% piloting or in the planning stage for deployment in the next two years. However, the trend is towards time-based pricing with many state regulators moving to make this a requirement. California, Ohio, Vermont, Massachusetts, Pennsylvania, Hawaii, Kentucky, Ontario, and Alberta all have dynamic pricing.

### ***Business Readiness for the New Customer Relationship***

#### **Most Utilities Are Preoccupied With the Implementation of Physical Infrastructure**

When asked about the top 3 business challenges associated with the new energy economy, most utilities cited the physical infrastructure. 24% of business respondents and 28% of IT respondents cited either implementation of smart metering or incorporating renewable generation as key challenges (see Figure 3). Both IT and business are also concerned with the costs associated with new installations, pricing pressures, and the ability to get access to cost recovery for new initiatives.

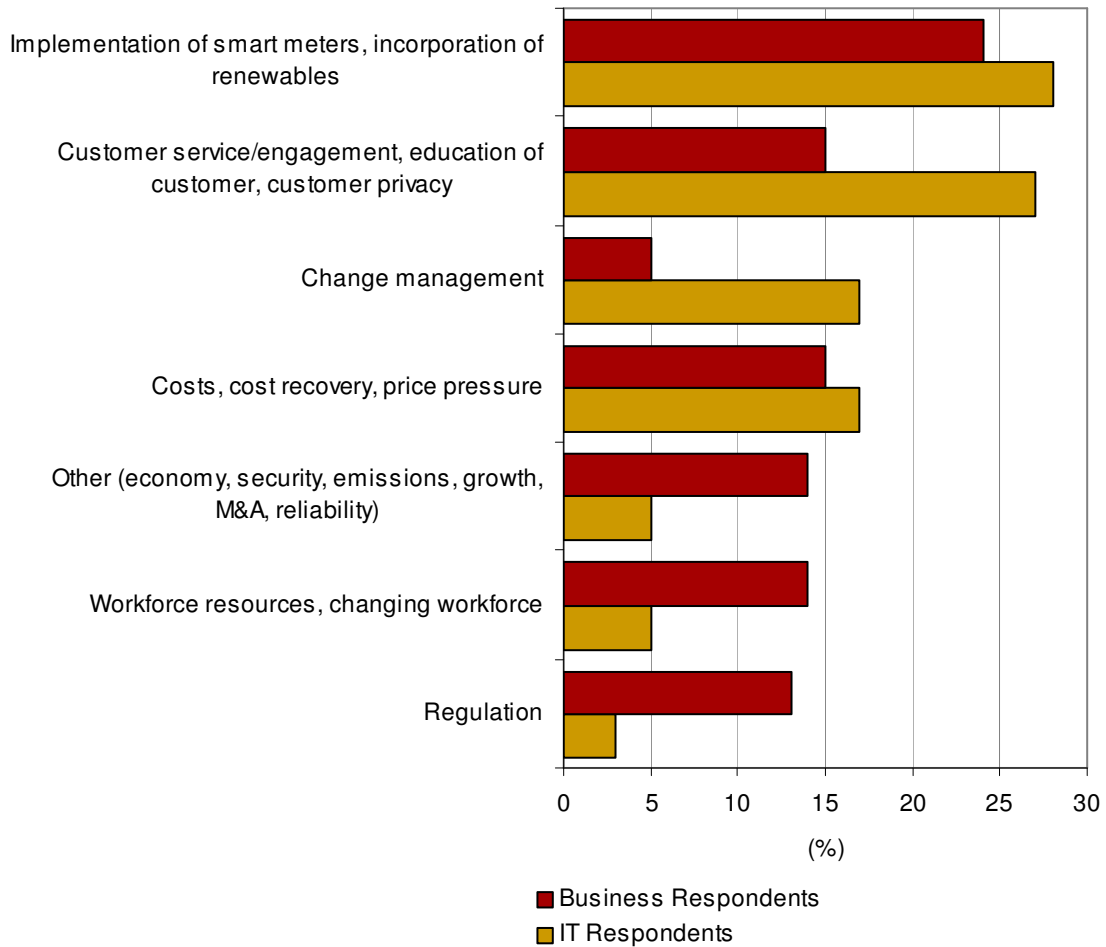
IT appears to be more concerned with education of the customer and change management than the business. IT does, in fact, have more experience with implementing business process change associated with new technology. It may be that IT also realizes that the ability to make the business case for new technology depends on whether the customer adopts new products and adapts to new ways of delivering services.

Business respondents are more concerned with general issues, such as the economy, mergers and acquisitions, and regulation. Surprisingly, reliability was mentioned only once. IT also raised customer privacy and security — two challenges that go hand in hand. However, customer service/engagement and change management accounted for less than 50% of the challenges for IT and less than 20% for the business. That is an indication that both IT and the business do not have sufficient focus on the changes in business processes that will be required in the near future.

*Customer service/engagement and change management accounted for less than 50% of the challenges for IT and less than 20% for the business.*

**FIGURE 3**

Top 3 Business Challenges



Source: Energy Insights, 2009

**Utilities See an Increase in Customer Interaction With Initial Deployment of Smart Metering**

IDC Energy Insights research shows that smart metering remains one of the most widely embraced infrastructure projects under pilot and deployment. The research results show that over 60 million residential smart meters will be deployed by 2013, with more than 35 million meters in place by 2011. Trial periods have collapsed to a year, which shows a high degree of comfort and confidence in smart metering.

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That degree of confidence may be unwarranted for utilities that are not thinking carefully about educating customers about smart meter

deployment and the implementation of new pricing structures. Witness news reports of a class action suit against a western-based utility. The suit alleges that smart meters are responsible for overcharges. However, there are other examples where the rollout of smart metering and time-based pricing has not been an issue for utilities, mainly because these companies have carefully rolled out their implementation, educated customers, and put in place a support structure specifically to handle customer inquiries related to smart metering.

AMI installations have seen an increase in customer interaction. According to the survey, 35% of utility respondents have seen an increase in call volume of between 10% and 30%. Companies that have not yet completed their smart metering deployment also expect an increase in customer interaction. A total of 8 out of 10 companies expect increases in call volumes, especially at the onset of the deployment. However, call duration has decreased as customers now have more information available to them on their consumption.

*A total of 8 out of 10 companies expect increases in call volumes, especially at the onset of the deployment.*

### **Utilities Are Not Quite Ready for Customer Engagement**

Forward-looking utilities are moving from conversations about customer service to talking about customer engagement. New technology such as smart metering and new programs such as demand response means that the customer will be more engaged on a daily basis with the utility. The customer will no longer be a passive recipient of a bill, but an active partner in managing energy consumption and cost.

Much of the investment by utilities in the customer experience has been in the area of presentment of consumption data to the customer via a Web portal. In fact, there is an expectation among most utilities that call volume will eventually be lowered and call duration shortened as customers learn to access information via the Web. However, according to one utility, "The real implications of AMI for the customer services process have been under-planned at this point."

*"The real implications of AMI for the customer services process have been under-planned at this point."*

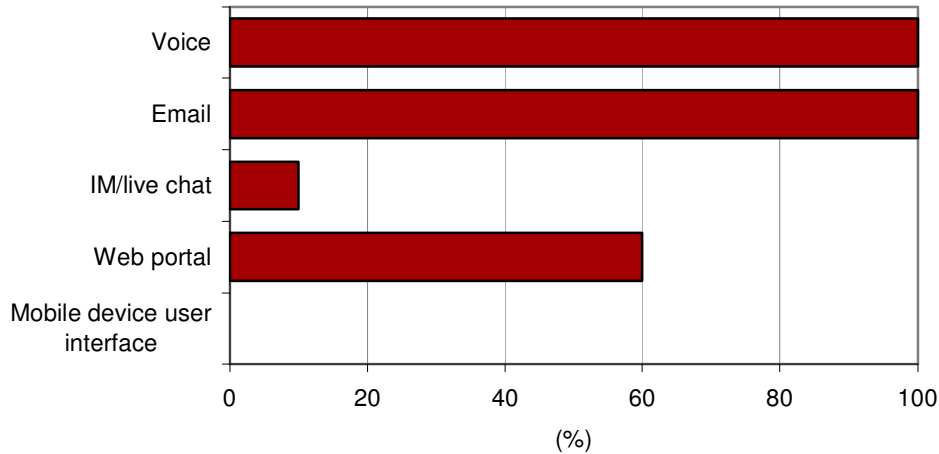
This is especially true when it comes to multiple communication channels to address the customer during the Web experience. Most utilities implementing smart metering and demand response expect that volume of traffic to the Web site will increase. Given that the customer is expected to spend more time interacting with the utility on the Web, there has been little investment in customer contact supplements such as live chat (see Figure 4) that could aid in the Web experience. Only 10% of utilities use live chat, but with more engagement via the Web portal with tools such as graphical display of energy consumption, simulations of savings opportunities and enrollment in energy efficiency programs, expectations are that customers will expect live chat resources. Only 60% of utilities report having a Web portal, and although utilities have enabled email

communications, the reality is that proactive communication is still done through bill inserts.

**FIGURE 4**

Communications Types Supported by the Utility

Q. What types of communications do you currently support in your contact center?



Source: Energy Insights, 2009

Some utilities also envision that customer service representatives (CSRs) will use the Web presentation to provide support to customers who contact the utility about billing inquiries. The idea is that the CSR will engage the customer to log in to the site and will walk the customer through a series of displays that can aid in understanding of the bill. However, few utilities report having provided training to their customer service staff in this approach.

Across many service industries, customer service has been advancing towards more closely meeting the needs of its customers through strategies such as:

- Voice of the customer research
- Analytics applied to customer data to identify patterns
- Customer experience training
- Linking compensation of contact center staff to measured customer satisfaction
- Development of products and services based on customer input (also known as service planning, development, and delivery)

However, only three of the utilities interviewed for this report have invested in these types of strategy. Another four utilities are currently piloting service planning, development, and delivery, and training. Instead, most of the investment in customer service is in software applications or phone systems.

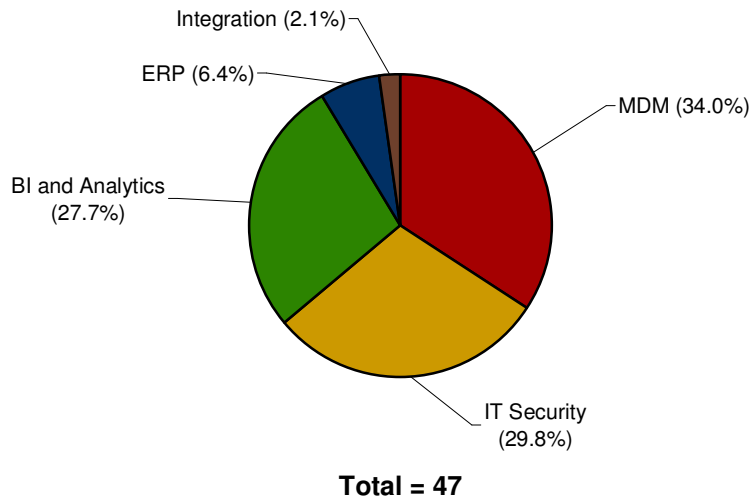
**IT Readiness**

Utilities have been adding to their systems in order to accommodate smart metering and other new initiatives. Volumes of data are growing exponentially with the collection of interval meter data for mass markets. Figure 5 displays the types of information and communications technology investment that utilities are making. Not surprisingly, most utilities report investing in MDM application and IT security. About a quarter of utilities report that in addition to IT security investments, there are efforts to address the privacy of customer information processes.

**FIGURE 5**

Investments to Manage Increasing Data Volumes

Q. Which of the following investments have you made to handle the increase in data volumes expected from smart metering deployed to collect interval data?



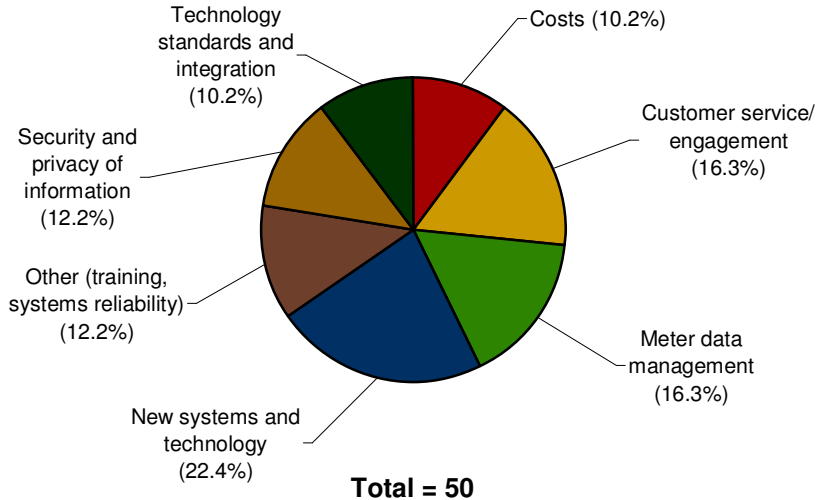
Source: Energy Insights, 2009

IT respondents at utilities recognized that serious business challenges remain. Figure 6 displays the challenges that IT sees with the implementation of smart metering.

**FIGURE 6**

**Key Challenges From an IT Perspective**

Q. When you consider the deployment of smart meters and associated new customer offerings such as demand response, from a process and systems perspective, what do you view as your organization's three key challenges from an IT perspective?



Source: Energy Insights, 2009

Customer service/engagement is closely linked to meter data management. Data from the meter is delivered up for customer presentment and combined with cost data to support the customer experience. Taken together, these two challenges make up a third of the top challenges discussed by utilities. Utilities have only begun to address the level of systems integration required between the CIS, MDM, CRM, and customer portal to support a quality experience for the customer.

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## **FUTURE OUTLOOK**

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### **Challenges/Opportunities**

The industry is at risk of not being able to meet the challenges presented by large-scale implementation of new technologies and changes in business processes across North America. Some utilities have recognized that they will need help if they wish to succeed. Partnering with experienced service providers, outsourcing, and training are ways to address that challenge.

#### ***Outsourcing is an Effective Strategy for Meeting New Challenges***

One forward-looking utility, Duke Energy\*, has chosen to outsource functions related to its smart grid deployment to a managed services provider. Time-based billing based on smart metering data, collections, and customer contact related to smart metering and other new initiatives are outsourced. The company has two legacy billing systems that would not have been able to adapt to changing needs without considerable investment.

#### **Outsourcing to Minimize Risk**

Utilities that decide to outsource business processes or IT related to the new energy economy do so to minimize risk and avoid capital expenditure in new systems. For example, one major utility is actively involved in piloting and testing new offerings to determine which will have the greatest impact. This utility is offering customers various combinations, including presentment of consumption via in-home display, presentment of consumption via Web portal, smart thermostats that can respond to an automated price signal, and time-based rates. Rather than install new software and train customer service staff system-wide on how to handle these pilots, the company is outsourcing these functions until it settles on a long-term plan.

#### **Outsourcing to Support New Lines of Service**

Utilities are also choosing to outsource customer care for system-wide initiatives like energy efficiency and demand response. Many utilities have traditionally outsourced the implementation of energy efficiency programs. Due to the scale up of energy efficiency programs, utilities are now outsourcing marketing and customer contact associated with energy efficiency to outside contractors. Over 40% of the utilities in the survey outsource energy efficiency programs. In addition, utilities are outsourcing demand response to contractors that are responsible for delivering the needed consumption reduction for a specified area when the utility calls a demand-response event. These contractors perform equipment installation, marketing, notification, and customer

*Over 40% of the utilities in the survey outsource energy efficiency programs.*

service for demand-response programs. A small number of utilities surveyed had exotic pricing in production system-wide. Over one-third of those utilities had outsourced customer contact functions to address customer inquiries.

Utilities have expressed concerns about costs and lack of resources to meet new demands (see Figure 3). Outsourcing is a way to help utilities manage operating expenses. Figure 7 displays the IT and business processes that utilities report they would consider outsourcing related to smart metering.

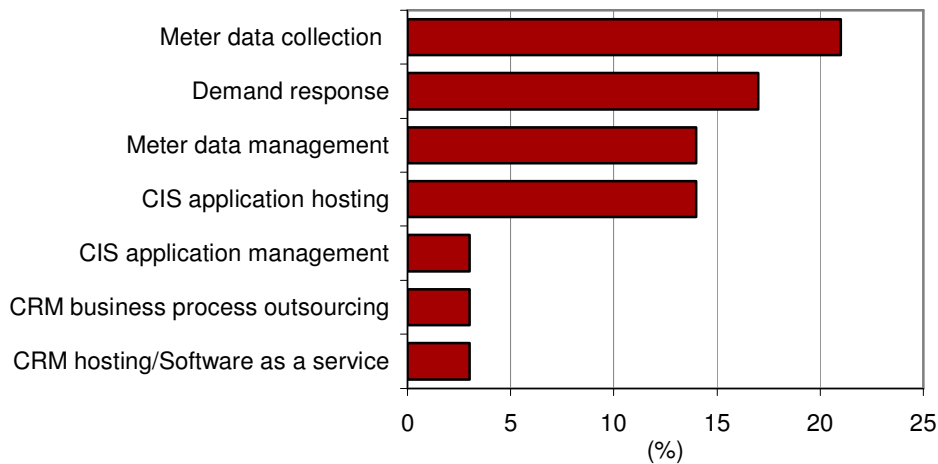
\*IDC Contract Services Database/Contract ID: #36744/Duke Energy Corporation/Billing Services & Customer Care / September 2009

For some time, demand response has been outsourced to contractors that agreed to deliver consumption reductions in a particular area on the network. The industry has been biased in the past toward capital investment, given regulation cost recovery. However, recently capital investments have been constrained and cost recovery models are changing. It is not surprising, then, that application hosting is being considered more favorably than in the past.

**FIGURE 7**

**Business Processes and IT Considered for Outsourcing**

Q. *Would you consider outsourcing any of the following related to smart metering: [Multiple response]*



Source: Energy Insights, 2009

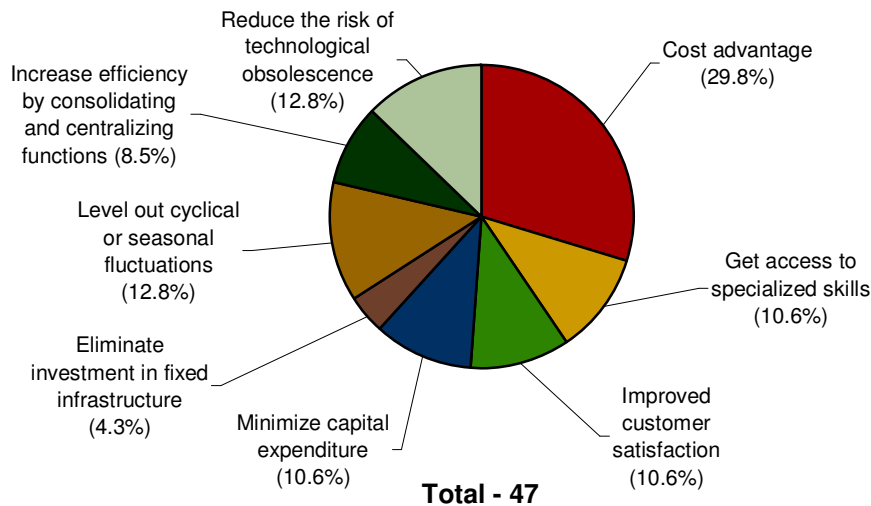
Utilities do recognize that there are good reasons to outsource and there are opportunities to do so with all the changes in the industry.

The main business benefit of outsourcing the contact center is cost (see Figure 8), but other benefits, such as leveling seasonal cycles and reducing the risk of technological obsolescence are cited as well.

**FIGURE 8**

**Business Benefits of Outsourcing**

Q. What do you view as the key benefits of contact center outsourcing?



Source: Energy Insights, 2009

However, utilities have expressed concerns about outsourcing, especially the contact center. Interestingly, almost half of the concerns have to do with offshoring, rather than outsourcing itself. However, there are many outsourcing providers that offer geographically diverse centers including onshore solutions as well as nearshore (Latin America). The nearshore advantage should not be discounted. Nearshore services offer proximity to the U.S., similar cultures, and Spanish-speaking capabilities. For IT, the concern is primarily a perception of increased cost of outsourcing. Quality is another concern although many outsourcing vendors outperform captive (in-house) centers, while also providing cost efficiencies.

**Training, Training, Training**

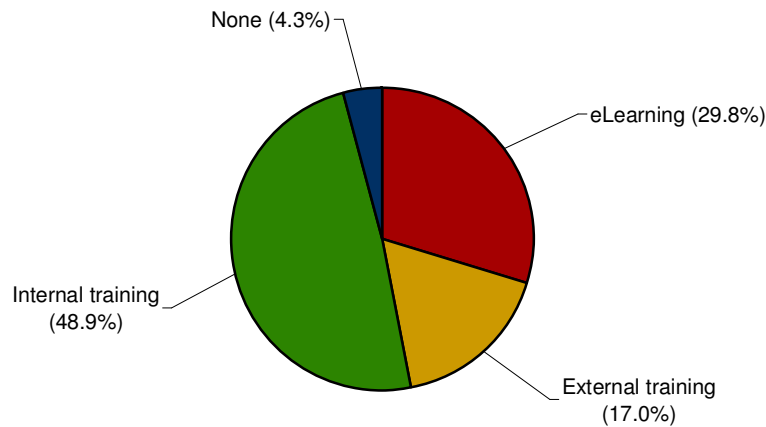
There is strong agreement among utilities that additional training will be required to handle new and modified business processes. When asked to rate the importance of workforce training in preparing for smart meters, on a scale of 1 to 5, utilities reported an importance of

4.3. Most utilities are using multiple training delivery methods (see Figure 9).

## FIGURE 9

### Sources of Training

Q. Which of the following approaches are you taking to training your workforce for smart metering and associated new customer offerings?



Total = 47

Source: Energy Insights, 2009

## Looking Ahead

The utility industry is currently experiencing the rapid introduction of new technology that is likely to continue with the introduction of even more consumer-based technology, all driven by new as yet undeveloped applications. A variety of energy management interfaces will be used, such as Web portals, next generation in-home displays, IPTV energy widgets, and smart phones. Mobility and 4G networks will open up even more services. As the smart phones and their applications penetrate more of the population, there are many possible scenarios. Some customers will opt to receive demand response alerts and respond to them via their phone. Others may make use of applications on their phone to manage their smart appliances to reduce costs or to remotely control appliances in a vacation home. Seamless integration of these new IP applications across multiple communication platforms requires a well-developed information and communications technology plan. Furthermore, the introduction of plug-in hybrid electric vehicles (PHEVs) will also introduce new challenges to systems and business processes.

## **CONCLUSIONS**

Utilities and their customers are entering a profoundly new and different relationship with the introduction of new technology and pricing programs. Careful planning and preparation will help ease the transition.

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## **Recommendations**

- Take the initiative now in developing a strategy for service planning, development, and delivery, even if you are at the very early stages of considering new technology. Look to other service industries that have already adopted new technologies and service delivery.
- Consider expanding your customer engagement strategies. Only a few utilities have grasped what telecommunications providers already know — that the customer will engage using multiple communication channels, including the smart phone.
- Develop a customer experience management practice that is part of a strategic marketing plan. Consider meeting the customer where they are. Use analytics to develop new customer segmentation based on geo-coding, lifestyle, and consumption patterns. Match the multiple touch points and technologies with new customer segmentation and customers' preferred communication channels.
- Use pilots as an opportunity to assess blended communications to serve your customers. Focus on the customer experience using tools provided via the Web portal and whatever other live interaction will be needed to complete the experience.
- Evaluate outsourcing options, especially to support new business processes and training. The new energy economy offers an opportunity to develop a proactive contact center that offers multichannel (voice, email, and chat), always-on customer service (24x7) to help educate customers and reduce customer frustration during times of change, while lowering service costs.
- If you do choose to outsource customer contact, work with outsourcing vendors to establish service level agreements (SLAs) and key performance indicators (KPIs) for objectives you want to achieve.

## **ABOUT TELUS**

TELUS is a leader in innovative communications technology, nationwide networks, hosted contact center solutions, and datacenter capabilities with \$9.6 billion of annual revenue and 11.9 million customer connections, including 6.4 million wireless subscribers, 4.1 million wireline network access lines, and 1.2 million Internet subscribers.

The company's goal is to help meet the energy industry challenges of smart grid networks and applications, mobile worker productivity, and the safety and security of people and assets. TELUS Energy Solutions support the deployment of utility company networks, smart meter and automated meter infrastructure, meter data management and customer engagement. TELUS has a track record with leading energy companies and experience in IT, security services, and contact center solutions.

Some of TELUS Energy Solutions include:

- NERC Compliance Consulting and industry leading IT security solutions
- Customer Experience Management (CEM) Practice delivering a full complement of hosted and managed multichannel contact center solutions and services that optimize the customer experience while reducing operational costs. Solutions include:
  - Managed Contact Center — managing customer inquiries across a variety of touch points, including phone, Web, chat, or email
  - TELUS Frontline — minimizing costly live agent interactions and understanding, anticipating, and responding to customer needs consistently across all channels
  - TELUS Secure Contracts — shortening the time to revenue using self-serve documents online, eliminating account setup errors, and instantly obtaining signed customer agreements from customers online or on the phone
  - Agent Performance Optimization Tools — providing complete management and analysis capabilities of contact center performance
  - Anywhere Solutions — providing access to new features, functionality and new channels to market as well as an expanded workforce without expanded costs

- Interactive Voice Response and Outbound Notification — mitigating risk, managing peak call volumes, and providing proactive and timely communications during outages or emergencies
- Contact Center Outsourcing for proactive, high-touch English and Spanish customer support. With centers throughout North America, Latin America, and Asia (the Philippines), the company's contact center and business process outsourcing expertise includes:
  - Customer care, outbound notifications and general inquiries
  - Billing inquiries and soft collections
  - Revenue generation including new customer on-boarding, enrollments, win-back programs and sales
  - Revenue management programs focused on meter-to-cash initiatives and reducing bad debt
  - Customer education/information provisioning support

With over 100 years serving the communications industry, TELUS has the size and experience required to partner with utilities and work with systems integrators, application providers, and device manufacturers on large-scale smart grid and contact center management projects.

For more information please visit: [www.telus.com/utilities](http://www.telus.com/utilities)

## **ABOUT IDC ENERGY INSIGHTS**

IDC Energy Insights provides research-based advisory and consulting services focused on market and technology developments in the energy and utility industries. Staffed by senior analysts with decades of direct industry experience, IDC Energy Insights covers the energy value chain – upstream, wholesale, delivery, and customer service – providing independent, timely, and relevant analysis focused on key business and technology issues. IDC Energy Insights serves a diverse and growing global client base, including electric, gas and water utilities, IT vendors, independent power producers, retail energy providers, oil and gas companies, equipment manufacturers, government agencies, financial institutions, and professional services firms. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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In addition to the primary research completed to support the development of this White Paper, IDC Energy Insights also conducts regular surveys of Utilities; best practices case studies, and publishes a variety of research on developments within the Utilities market space.

Some related research recently published includes:

- *North American Intelligent Grid Utility Spending Forecast* by Marcus Torchia, Jill Feblowitz, Rick Nicholson, Dec 2009 — IDC #EI220896
- *North America Utility Industry 2009 Top 10 Predictions* by Rick Nicholson, Jill Feblowitz, Nadav Enbar, Craig Williamson, Jan 2009 — IDC #EI216039
- *2009 UtiliQ Rankings: Top 25 Intelligent Utilities* by Rick Nicholson, Aug 2009 — IDC #EI219691
- *Best Practices: Meeting the Challenges of Energy Efficiency Scale-Up* by Jill Feblowitz, Sam Levine, Oct 2009 — IDC #EI220521
- *Vendor Assessment: Customer Care and Billing Industry Short List — Customer Care in the New Energy Economy* by Jill Feblowitz, Oct 2009 — IDC #EI220574
- *Vendor Assessment: Buyer's Guide for Sustainability Services for Utilities — It's All About Smart Metering and Carbon Emissions* by Jill Feblowitz, Gard Little, Sep 2009 — IDC #EI219884

## APPENDIX

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### Methodology

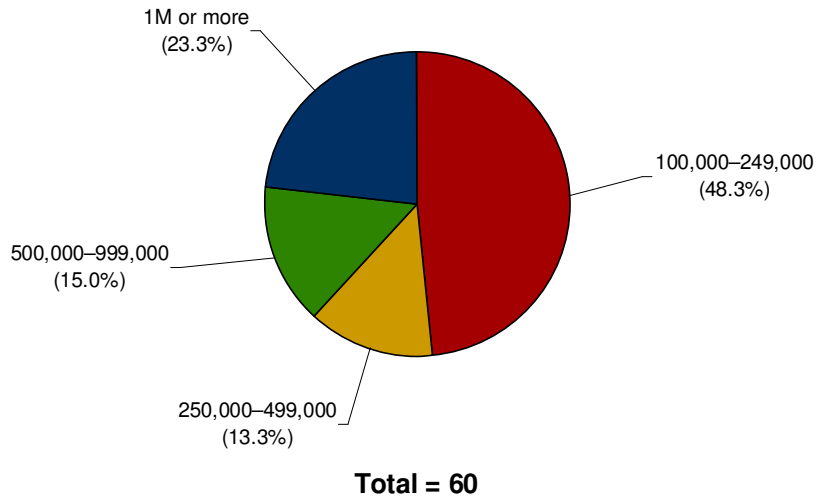
The results in this White Paper are taken from a December 2009 IDC Energy Insights study of 60 large randomly selected North American utilities. The study was completed using a phone-based data collection methodology, and targeted senior decision makers within IT and customer care. The main focus of the survey was to assess the impact of smart metering deployment on customer experience management. In addition to the 60 surveys, IDC also completed 10 in-depth executive interviews to gain additional insights into how leading firms have adapted their customer experience management framework in response to smart metering.

Figures 10–13 show the demographic distribution of the survey respondents.

**FIGURE 10**

Respondents by Number of Retail Customers

Q. How many customers does your utility have?



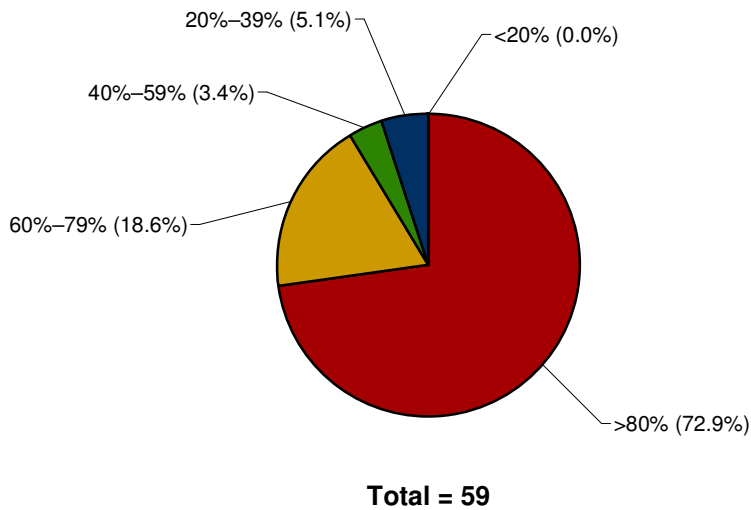
N=60

Source: Energy Insights, 2009

**FIGURE 11**

Customers by Type

Q. What percentage of your customer base is residential (vs. business)?



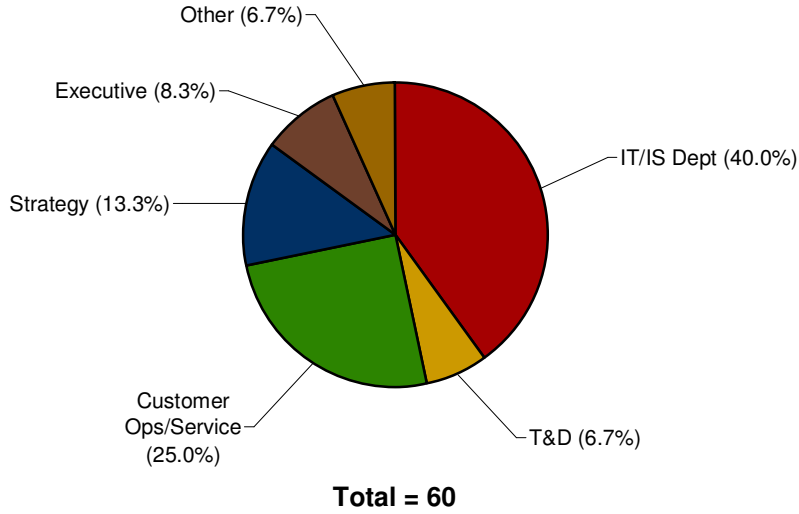
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Source: Energy Insights, 2009

**FIGURE 12**

**Distribution of Departments**

Q. What department do you currently work in?



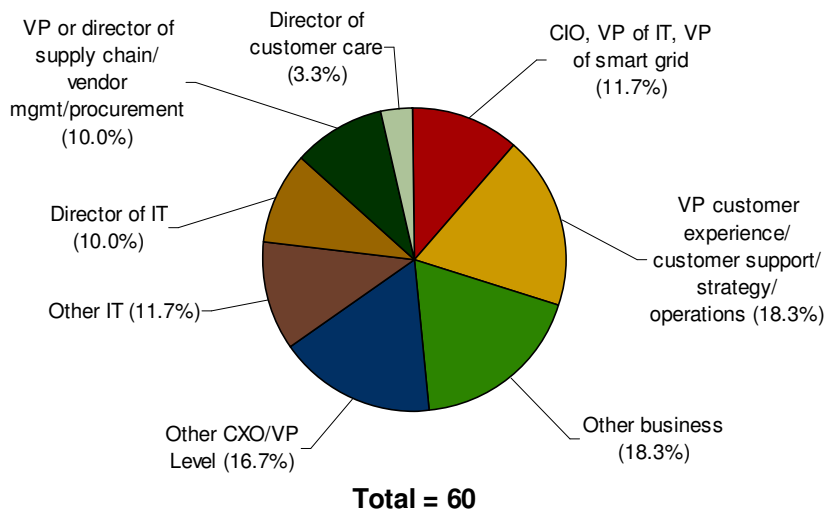
N=60

Source: Energy Insights, 2009

**FIGURE 13**

**Distribution by Title**

Q. What is your title?



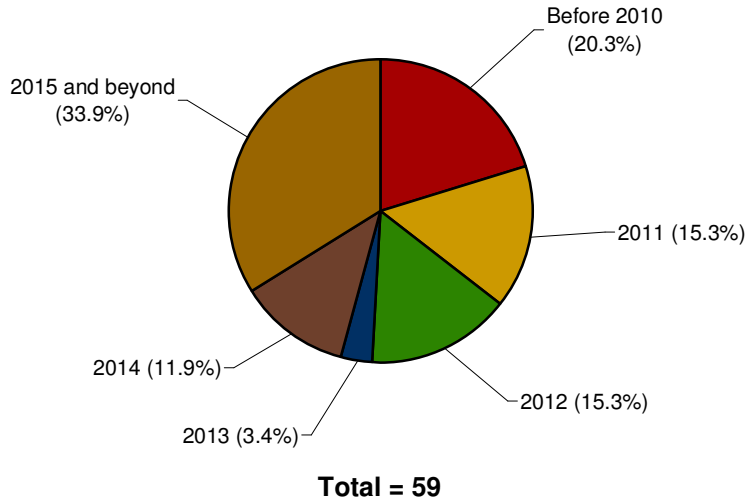
N=60

Source: Energy Insights, 2009

**FIGURE 14**

**Year of Full Deployment of Smart Metering**

Q. What year do you expect that 90% of residential customers will have smart meters?



Source: Energy Insights, 2009

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