Smart Customer Communications for the New Energy Era

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Facing Radical Change in a Typically Static Industry

▶ Keeping up with radical transformation is no easy task, especially for an industry unused to change. Yet that's precisely the challenge America's utilities face. Companies that focused almost exclusively on generating and distributing power in the past are now besieged by fluctuating market dynamics.

Today, utilities are challenged to introduce new products and services enabled by smart grid technology; face increased competition due to deregulation; are required to comply with complex regulatory and environmental mandates; and face obstacles to upgrading the grid to accommodate energy flowbacks from electric vehicles, renewable energy sources, and decentralized generation.

At the same time, consumer expectations are shifting. As telcos and banks vastly improve the customer service experience, both retail and commercial energy consumers have come to expect electronic billing, Web-based self-service, and mobile applications from their utility.

Failure not an option

Failure to meet these demands threatens to affect more than customer service levels. Utilities that don't communicate outages or scheduled roadwork in real time can expect to see an increasing number of customer complaints to the Public Utility Commission (PUC), making it more difficult to get rate cases through. Poor communication can also result in an outpouring of negative feedback — which customers can now disseminate widely and quickly through social media like Facebook and Twitter.

Reaching out to customers has become increasingly more complex. Utilities lacking an integrated information management system face challenges updating terms and conditions across communication documents, exposing them to potential liability. Utilities adopting time-of-use (TOU) rates frequently find themselves unable to explain new billing processes to customers. Utilities putting off the massive capital infrastructure investments required to upgrade aging and deteriorating systems struggle to get customer buy-in of their demand management and energy-efficiency programs.

The right stuff

"To engage customers today, utilities must provide the right content," explained Robert Thiele, Senior Director, Strategic SAP Alliance Management at OpenText, a company assisting utilities in dynamically communicating with customers. "Rather than including just transactional data from your billing system, for instance, you need to explain your fees. Are costs up because the weather was warmer since the last billing period? If so, can you give customers tips on how to keep costs down? This is the type of intelligence you need to share if you hope to improve customer relations."

Enterprise Information Management (EIM) systems can help utilities reach these goals — but only if they are sufficiently robust.

The systems must do more than help you communicate consistently across all channels, including bills, mobile applications, Web, email, text messages and call center operations. They must also integrate seamlessly with back-end customer relationship management (CRM) systems, enabling utilities to dynamically track and manage content across the entire enterprise with retention policies, rules-based access and auditing capabilities.

"Utilities need a system that makes interoperability between their different projects and tasks more seamless," said Marci Maddox, Director of Global Product Marketing for CEM Solutions at OpenText. "A true EIM system supports inbound and outbound customer communications, collaboration within the company and with regulatory bodies, document sharing, and much more." ●

Customer Engagement in the New Energy Era

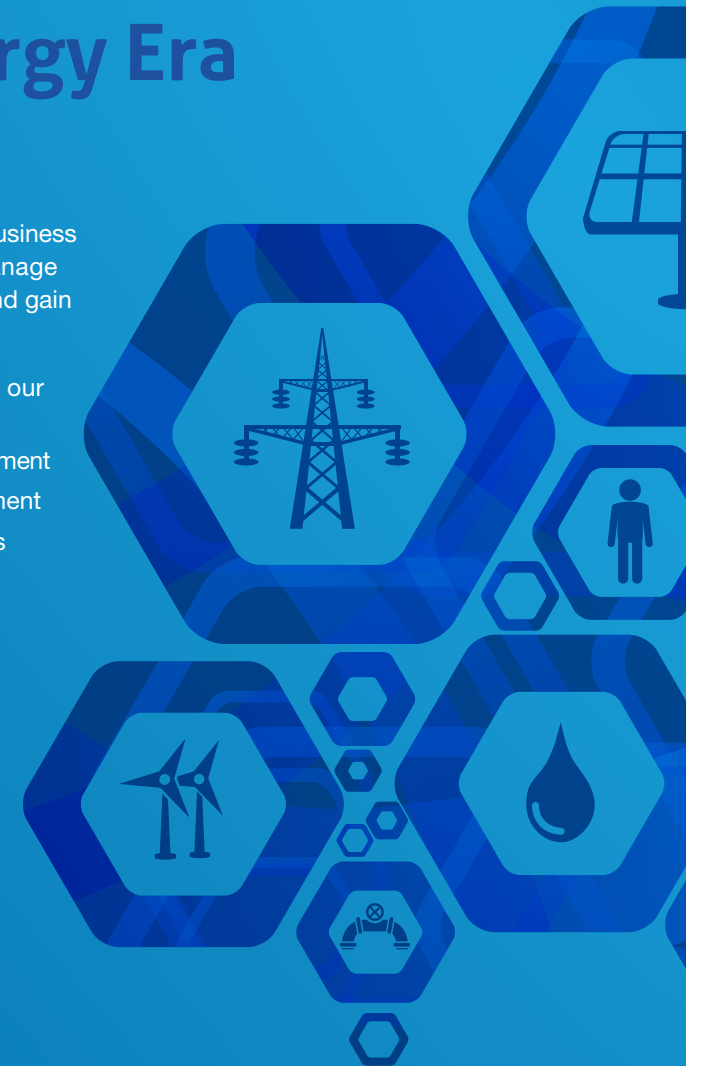Utilities haven't had much need for deep customer relationships. As long as customers paid their bills (hence, the term "ratepayer"), the utility was happy. That is, until the dawning of the smart grid, which promises to provide utilities with opportunities to interact with their customers like never before.

As a result, traditional metrics are evolving. For example, time-of-use (TOU) pricing, brand identity, social media use, mobile and Web self-service applications, and improved call center utilization are all becoming more important.

Embrace change

At the same time, consumer messaging that was traditionally delivered through one medium is now becoming more targeted and being delivered through multiple channels, including Web-based self-service portals, social media like Facebook and Twitter, text messaging, and smart phone applications.

Advanced Metering Infrastructure (AMI) and smart meters are helping to drive this change by communicating end-user consumption and preferences back to utilities and enabling value-added offerings, such as pre-paid services.

Yet, maximizing this opportunity requires strong communications and data management strategies.[1] Flexible EIM systems that integrate into CRM, billing, and other systems allow for centralized message creation and delivery directly to customers' chosen touch points.

"Whether it's customer profiles or usage information, certain systems—like OpenText document presentment solutions—can help utilities communicate via the customer's preferred channel, such as by text message, email, or through more traditional correspondence and messages on the bill," said Robert Thiele, Senior Director, Strategic SAP Alliance Management, OpenText. "Archiving all customer interactions ensures a 360-degree view of the communication lifecycle."

The impetus for change is here, and utilities realize there is no getting around it. However, as utilities upgrade their CRM and EIM systems, the temptation exists to purchase software and systems from different vendors, resulting in a system that wasn't meant to run together holistically. Partnering with a strong integrator can result in a better overall approach for creating an effective end-to-end solution.

Cost efficiency is key

In the days when utilities did not have to manage complex demand response programs or interact with customers through multiple channels, reliance on point solutions may have made better sense. Back then, utilities could adopt a one-to-one approach to customer relationship management, customizing their CRM systems to meet their own needs.[2] As the industry becomes more sophisticated, however, that model no longer works. Instead, utilities today are taking a one-to-many approach, by purchasing packaged core CRM/EIM solutions from vendors that provide embedded industry-specific functionality. By leveraging these economies of scale, utilities can realize greater cost efficiencies while benefiting from future system upgrades.

SAP provides a great example of these economies of scale. Working alongside OpenText, SAP has developed utility-specific solutions designed to address evolving industry requirements. "We give utilities a 360-degree customer view in our CRM system through the right electronic document management, which benefits utilities at the point of power generation, maintenance, distribution, and retailing," explains James McClelland, Senior Global Director of Industry Marketing, Energy & Utilities, SAP Americas.

This increased visibility into utility needs represents a move from former best practices to "best customer engagement models," according to Lisa Dalesandro DiChristofer, SAP Senior Industry Principal.

A more robust CRM/EIM system underpins multi-directional customer communications, and helps utilities service and maintain an ever-growing, more complex products and services suite. Utilities may see other benefits such as improved power delivery and quality, increased operational efficiency, the ability to incorporate green energy, and more customer engagement in the energy management process. Further, these types of industry-focused CRM/EIM systems help utilities build long-term customer profiles so utilities can strive to meet individual customer needs.

For example, with better profiles and communication, utilities can advise a heavy peak-time user to switch their consumption more to off-peak times, resulting in costs savings for both parties.

Utilities are listening

A 2011 Five Point Partners survey revealed that 25.4 percent of utilities were currently involved in an effort to replace their Customer Information System/Customer Relationship Management (CIS/ CRM) systems.[3] In 2012, that number increased to 29.6.

The trend is likely to continue. Case in point: 62 percent of utilities anticipate evaluating and installing a CRM system in the near future; 41 percent say they will do this sometime in the next four years.[4] ●

[1] http://www.govtech.com/library/how-to-guides/Creating-Your-Smart-Grid-A-How-To-Guide.html

[2] http://fivepoint.net/blog/241-the-great-cis-risk-migration

[3] http://fivepoint.net/blog/241-the-great-cis-risk-migration

[4] http://www.netcracker.com/smartrevenue/downloads/Convergys-Customer-Success-Smart-Grid-Era.pdf

Eliminate Pain Points with a Holistic System

▶ Whether a gas, water, or power utility, operational expenses are a highly variable and painful challenge. Utilities can reduce these costs with efficient operations and improved customer interactions.

Utilities are also experiencing a pain point common among other large businesses: The proliferation of marketing, billing, finance, and customer service systems operating in silos. Utilities would do well to unite as many of these functions as possible into a holistic system with better information governance. "Especially when a new piece of information is added to the system, depending on where you are in the organization, you'll see that additional piece of information in your language in a way that's relevant for you," said James McClelland, Senior Global Director of Industry Marketing, Energy & Utilities, SAP Americas. "Utilities will no longer have duplicate data or informational silos. The solution keeps utility data costs low, sanitized, and secure while increasing the power with which utilities can communicate with their customers."

Tightly integrated customer communications can help utilities answer the questions: "How do you manage the brand consistently across increasingly complex interaction channels (touch points)?" "How do you balance customer management efficiencies with customer and revenue requirements?"[5]

Adding value

There are four areas where a robust CRM/EIM system can add real value to integrated communications:
- Brand and Digital Asset Management
- Document Access and Archiving
- Content Presentment and Multi-Channel Communication
- Portal Management

Through brand and digital asset management, utilities can realize great operational efficiencies when marketing, creative services, and promotions teams collaborate and share around a central repository of digital assets such as YouTube videos, logos, photos, text, and audio clips. Sharing and collaborating from a central location allows for easier interfacing with groups that create campaigns, faster approvals for those campaigns as well as a reduction in the cost of the creative cycle.

Document access/archiving and content presentment allow for first contact resolution, resulting in happy, satisfied customers.

When a customer calls in, a customer service representative (CSR) using SAP extended EIM, will make an attempt to resolve the issue quickly and on the first call. When pulling up that customer's information, all previous outgoing and incoming communications with that customer, including bills, correspondence, text messages or emails, will be available to the CSR through their common CRM interface. A 360-degree customer view with bills and other information can easily be analyzed, reprinted, and resent to customers. Within just one system, the EIM offers more visibility into document history and more flexibility to control and locate the exact information the customer is requesting.

Taking a holistic view

A holistic view of all customer profiles and interactions allows the CSR to cross- and up-sell other utility products and services. An even greater benefit: By making customer documents more easily accessible, utility call centers can also reduce their costs by 15 to 20 percent.[6]

With portal management, both internal teams and external customers benefit. Internal utility portals help field personnel tap into Web-based resources using smart phones to service physical assets in the utility's distribution system.

"A repair person can pull up one of our videos before going out into the field to make a repair or respond to an incident," said Marci Maddox, Director of Global Product Marketing for CEM Solutions at OpenText. "When they're in the field they can pull up incident reports, inspection history and operational logs."

More efficient communications can lead to more efficient revenue collection, as well as reductions in cost to serve, call center volume, and length of the billing-to-cash cycle.

"These solutions allow for better cost control through add-on programs and incentives for customers," said Maddox. "Better customer communications could also mean fewer calls to a call center and more usage of self-service portals and online billing. These things can all provide cost savings to utilities and for customers."

Real benefits

Even the bill itself is changing. A once-generic bill sent to the masses is now a more personalized "one-to-one" marketing document.

Consider the Asian power group, CLP. CLP needed a more tailored approach to its mass-billing capabilities and the opportunity to interact more frequently with customers. Using OpenText EIM solutions, they were able to reduce the number of billing templates from 300 to six, as well as better personalize and sort bills to particular recipients. CLP experienced improved cash flow (shorter bill delivery time) and lower total cost of ownership.

"Customers have complained about not having control over communications and that is changing," said Robert Thiele, Senior Director, Strategic SAP Alliance Management, OpenText, emphasizing that customers will play a greater role.

"People are used to dynamic e-commerce sites and mobile apps, so they're beginning to demand that type of interface in other areas," Thiele said. ●

[5] SAP: Next Dimension of Customer Engagement - Webinar

[6] 3Scandinavia example - http://www.energycentral.com/marketing/pdf/042312_sap_slides.pdf

Roadmap to Customer Excellence

▶ Without doubt, the smart grid will bring utilities and end-users together like never before. Real-time information sharing will lead to greater operational efficiencies, a reduced environmental impact and costs savings—enabling utilities to deliver reliable end-user support for years to come. To realize these benefits, however, you need a strategy for building deep customer engagement. That's where smart EIM and CRM software, from companies like OpenText and SAP, comes in.

Implementing new solutions, however, creates its own complexities. With current resources dedicated to maintaining existing systems, the need to comply with complex regulations, the pending retirement of a huge percentage of the workforce and difficulties associated with attracting the talent to run new systems, utilities are unsure how to embark on the journey towards smart customer communications.

Here are some lessons learned and best practices to get started:

1. **Buy versus make**
   Rather than developing costly custom applications, utilities should adopt software systems already built to address their business needs. By leveraging functionality that is constantly updated to address market trends and requirements, you can bring new products and services to market faster while keeping control over maintenance costs and maintaining best-practice processes in case employees retire.

2. **Involve the business**
   To avoid project delays and cost overruns, involve the business owners in your customer engagement technology initiatives. By aligning business and IT expectations throughout the entire project, you can prioritize initiatives and gain the buy-in you need to secure necessary budgets while avoiding costly change requests and missed expectations.

3. **Create a roadmap**
   Outline a vision and design an architecture that will support enterprise-wide customer engagement. Some software vendors, including SAP and OpenText, conduct business and IT value engineering assessments for free to help you architect a roadmap towards customer excellence.

4. **Start with defined projects with immediate ROI**
   Although a strategy and long-term roadmap are crucial, begin with defined projects that deliver a short-term ROI, and use improved operational efficiencies to help fund future innovation. You may even be able to reduce the total cost of ownership of a new enterprise platform by using it to improve reusability and scalability.

5. **Avoid point solutions**
   Data proliferation is the bane of modern business existence. With communications and documents generated, distributed and stored everywhere, you need a centralized platform that can manage, maintain, track and decommission all your information assets across all your core business systems. OpenText and SAP are core platforms and pillars for your business operations.

6. **Talk to others**
   In your efforts to improve customer engagement, look for best practices and industry insights from national and global utilities—and other industries—that have already made this transformation. Organizations like the Americas SAP User Group ASUG created a platform for customers to provide a wealth of education and information sharing.

7. **Turn back-office into front-office**
   The days when back-end functions were invisible to customer eyes are gone. Today, utilities can't resolve outages in the background; they need to alert customers up-front. Bills can't present only historic information; they need to contain personalized messages and programs. To deliver this value, while reducing both project risks and costs, you need the ability to share your back-end enterprise information with front-end customers across every channel you use to communicate. ●

Optimizing Customer Communications in the Utilities Industry

▶ SourceGas is a natural gas local distribution utility headquartered in Golden, Colorado. SourceGas and its affiliates serve nearly 410,000 customers. SourceGas had a challenge. Their business is split across several offerings: the regulated distribution of natural gas and the non-regulated sale of appliances (such as water heaters, gas grills and furnaces) and services (such as appliance service contracts).

Because different customers in different states use different products and services, the company must incorporate state-specific rate changes in each of their bills. To grow revenues, they also wanted to include targeted advertisements and marketing messages in their billing documents. However, an inefficient customer communication and billing system was resulting in errors and customer complaints.

To combat these issues, SourceGas turned to OpenText. "We needed a highly-customizable solution that integrated with our SAP system and gave us the ability to better manage the creation and delivery of customer communication across all four states where we operate," explains Ryan Esch, SAP Analyst at SourceGas.

With OpenText StreamServe, the company was able to integrate information from their various business systems with their SAP CRM and billing applications, rather than building and maintaining custom interfaces across various point solutions. The company also implemented OpenText Document Access to gain a 360-degree view of all customer communications and billings, across multiple communication channels.

> **"The OpenText solutions are an extension of our enterprise applications and will allow us to scale as we continue to grow."**
>
> *RYAN ESCH, SAP ANALYST AT SOURCEGAS*

SourceGas went live with their entire SAP platform, including the new OpenText functionality and a new call center, within only 11 months—and they began realizing measurable benefits right away. Since implementation, SourceGas has been able to:

- Develop hundreds of targeted communications segmented by customer location and need and manually trigger certain actions based on individual customer situations.
- Reduce the time required to change the format and messaging of outbound correspondence from several weeks to 24 hours—speeding up billing cycles and improving cash flows.
- Reformat billing processes to accommodate customers with special requirements.
- Enjoy a 99.78% rate of billing accuracy with standardized electronic and printed documents.
- Reduce customer inquiries to the call center by 17%.
- Push the number of customer complaints down from 299 in 2010 to 165 in 2011, and trending lower.
- Respond to billing inquiries 20% faster by giving customer service reps easy access to electronic copies of customer documents.
- *Projected* Increase non-regulated business growth by 11% in 2012 and by a projected 23% in 2013, by creating marketing campaigns that target their messages to specific customer groups and based on specific customer criteria. This strategy has already paid off. "In April 2011 alone, we increased our revenue from grill sales by over 160% compared to the previous year," says Esch. Similarly, revenue for the company's spring tune-up service rose 40%.

"The OpenText solutions are an extension of our enterprise applications and will allow us to scale as we continue to grow," says Esch. "We look forward to using the application for new marketing opportunities and to drive additional internal efficiencies going forward." ●

Smart Customer Engagement

▶ There's customer engagement, and then there's smart customer engagement.

It's all about reducing cost and complexity in multi-channel communication while providing excellent, personalized service to customers. Keeping information consistent across all touch points in real time is key.

Whether you're dealing with unstructured documents or creating a new marketing message, the creation, dissemination and archiving of that information helps create an effective communications system. A pain point for utilities today is precisely this: Customer information management isn't as unified as it could be, and various touch points aren't being used to full effect.

Social media's deep dive

One of the most responsive touch points in the communication chain would have to be social media. Using Facebook and Twitter allows rapid communication between customers and utilities through a medium that can be used to monitor brand sentiment or have a dynamic conversation with customers in real time.

By running a more unified CRM/EIM system, utilities can directly integrate with Twitter to interact with and respond to customers quickly. For example, you are tweeting with a customer who

needs A/C cycling equipment repair. Some CRM/EIM solutions allow utilities to communicate with their Twitter account directly and then to create a service order through the same portal so a technician can be dispatched to make the repair — with all relevant information at hand.

Identifying and addressing these types of issues quickly, through the customer's preferred touch point, can prevent customers from becoming upset and opting out of additional programs, such as energy efficiency. Streaming communications in this way will lead to more meaningful customer interactions.

"We give utilities the power to leverage social media and mobile applications for better communications with their customers," said Robert Gascho, Industry Strategist for the Energy sector at OpenText. " The proper application of social media can help a company engage more proactively in demand side management programs, as well as during incidents."

Gascho cites a recent, large-scale outage in the United States, where severe weather left over 2 million customers without electricity for up to five days.

Real cost of poor customer service

"If the utilities had used social media to inform their customers of the actions being taken and expected service restoration times, they could have averted a high volume of service calls and complaints to their call center," Gascho con-

tends. "Complaints can be costly to a company, potentially affecting future rate increases with their utilities commission."

The stakes are equally high when managing corporate social responsibility, where proactively raising awareness with stakeholders rather than reacting can make a significant difference. "If you're not on the ground communicating through social media in real-time, then someone else will do it for you, and it will become the story."

Smart engagement also means coming up with targeted incentive

or energy management programs for individual or groups of customers. Targeted messaging can greatly improve response rates as opposed to blanket incentives sent to all customers.

Dong Energy's response-rate success

Low response rates are a major pain point for utilities. Northern European power generation company Dong Energy improved those rates.

After implementing OpenText's SAP Document Presentment, Dong

Energy could respond to competitive threats with personalized, targeted mailings within 24 hours.[7] Segmented mailings resulted in up to a 20 percent response rate. The company predicted three percent and the industry average is five percent.[8]

The right customer communications management tools take advantage of bill space by attaching coupons, as well as promoting tax breaks, energy saving programs, and even light-bulb trade-in programs. These promotions, known as "onserts," can be aggregated in differ-

ent combinations for different customers and sent out automatically. Some OpenText customers report response rate increases of as much as 300 percent when messages are included on the bill versus traditional mail inserts.

Learning a lesson from telcos

With energy consumption and incentives becoming more customized, utilities can communicate with customers in the same way as cell phone carriers, where customers find highly targeted information in their bill along with special offers tailored for them.

OpenText's ECM solutions allowed 3 Telecom to take advantage of highly customized promotions targeted differently to different customers.

"They're doing dynamic loyalty programs and not just fixed invoices," Maddox said of 3 Telecom.

Specifically, 3 Telecom uses bonuses and "surprises" for customers based on their usage, according to 3 Telecom's Customer and Loyalty Director Thomas Wandahl. For example, a frequent texter might receive 100 free text messages as a bonus.

The utility industry can benefit from these same types of targeted promotions. The more targeted the mailing, the higher the anticipated response, the deeper the engagement. ●

[7] SAP Customer Success Story – DONG Energy: Targeting Messages and Increasing Response Rates

[8] SAP Customer Success Story – DONG Energy: Targeting Messages and Increasing Response Rates

Business Model Innovation, Demand Side and Outage Management

▶ Highly customizable demand side programs are an essential part of customer communications management.

In the past, utilities determined supply needs based on historic data about consumer behavior, weather conditions, and other factors. Now, demand response programs combined with smart meters are helping utilities make better choices about how and when to supply energy based on real-time information from customers. Along with better demand forecasting, utilities are also getting better at informing their customers about outages and reacting more quickly to disturbances.

Smart communications
What exactly is the role of smart communications during an outage or disturbance?

An adaptable CRM/EIM system can pay real dividends by connecting customers to utilities during unexpected events. Using the power of social media, vendors are building applications that allow consumers to take photos of downed power lines with their smart phone, geo-tag the location, and send it to their utility in real time. This capability is made possible through a social media channel linked to the CRM system.

This creates a service ticket faster than contacting a call center, and could resolve the issue more quickly.

Demand side management
During normal operations, the importance of demand side management (DSM) can't be emphasized enough.

"Distribution can be expensive, and if you can shave off the peaks and change people's behavior, you can use your existing capacity to serve customers more efficiently," said Robert Thiele, Senior Director, Strategic SAP Alliance Management, OpenText. "In the near future, some utilities expect a 20 percent spike in demand and the only strategy is to optimize the curve and its peaks. And that is only the normal growth, without taking additional factors like electric cars into consideration. You can manage the use of air conditioners, lighting, and even energy-efficient windows — and doing the relevant programs across the customer base will allow the effects of peak optimization to multiply."

But with the Electric Power Research Institute (EPRI) predicting a 39 percent increase in summer peak demand in the U.S. (a faster annual rate than electricity use), demand response programs have become even more significant, having the potential to reduce consumption by 14 to 20 percent by 2030.[9]

Programs such as time-of-use (TOU) pricing are another way to

even out energy peaks by helping to alter behavior so customers consume energy more efficiently and evenly. Subsequently, utilities face less pressure to provide most of their energy during concentrated peak periods — a traditional pain point for providers.

To encourage consumers to take advantage of TOU pricing, utilities can use CRM/EIM systems to clearly demonstrate the costs savings. This can be done through targeted cross-selling to particular customers that educate them on TOU pricing benefits directly on their bill or through other touch points.

Taking demand side management a step further, direct load

control (DLC) programs provide even more direct communication between utilities and their customers. Opting into a DLC program, customers grant their utility the right to automatically moderate the usage of central air conditioning and other high-consumption appliances — items that account for a large part of peak load.

Smart customer communications are essential to making the case for participating in a DLC program and presenting comprehensive information about the benefits of the program. These programs can be offered on a voluntary basis to residential, commercial, and industrial customers who receive special monthly bill credits.

Pre-paid and average billing
Pre-paid energy usage and average billing are types of demand side management programs that benefit utilities by providing a more structured stream of income. Pre-paid usage allows customers control over the energy they consume.

"A pre-paid customer would even get a targeted email, for example, saying they have three days of usage left on their bill versus a more generic monthly statement," said Thiele.

Average billing is a fit for customers not wanting to pay varying electricity costs in winter versus summer. Such customers opt-in based on a CRM/EIM system's

"clearly labeled metrics and graphs," giving them the information they need to join the program right on their bill, according to Marci Maddox, Director of Global Product Marketing for CEM Solutions at OpenText.

For these systems to work, customers must upgrade their hardware to make it smart enough to communicate with their utility. Smart-appliance companies such as Whirlpool are working to have their appliances smart-enabled by 2015.

"They'll have the ability to talk to the utility company to distribute load more evenly with a smart feature which should allow the device to determine the best time to operate based on customer preferences and smart load management," said Thiele.

Smart appliances will work in tandem with smart meters and In-Home Displays (IHD) to support customer engagement through feedback and TOU pricing as well as load control scenarios. Smart meters will help complete the end-to-end communications loop and provide real-time information to utilities so they can make quick energy adjustments, helping themselves and their customers save money.

That's just the tip of the iceberg. Beyond savings, other exciting advantages exist, such as myriad products and services that can be layered on top of smart meters, according to Thiele. ●

[9] Demand Side Management: Why utility-directed load management programs make more sense than ever before.

Information Governance and Regulatory Compliance

▶ The move to the smart grid will necessitate changes to hardware and network systems. Just as important is determining how to handle large amounts of system data. Information governance and regulatory compliance are crucial for customer buy-in and creating the right policies to take advantage of all the benefits the newly interconnected grid has to offer.

Information governance refers to the handling of more granular consumption data. This information can be used to create more complete customer profiles. It can also be used for cross-selling and up-selling additional services as well as data archiving.

Increased privacy
But more available data requires more privacy.

"[EIM software solutions are] out-of-the-box solutions that are compliant with government regulatory standards for data privacy and environmental law both in the U.S. and globally," said James McClelland, Senior Global Director of Industry Marketing, Energy & Utilities, SAP Americas.

Strong CRM/EIM solutions allow for proper indexing and secure archiving (and decommissioning) of data in a central repository regardless of what touch point it was accessed through or if the information is incoming or outgoing. These repositories store all the knowledge a utility has built up over the years on each customer and offer the option to grant various access levels to employees depending on their department and seniority. Archiving solutions allow utilities to locate any communication through a central repository to respond to regulatory requests, to use in legal proceedings or to slate for further analysis. The scalability of such a platform comes into play as utilities add further touch points that still feed the information to the centralized repository.

Information governance extends to cross-selling and up-selling. Utilities can gather more precise consumption data, down to the micro-level of how an individual smart appliance is being used, to create an accurate customer profile for cross-selling. These accurate profiles offer a solution to utilities faced with the challenges of understanding specific consumption and offer customized programs that meet individual needs. For example, targeted marketing may include coupons for a weatherization campaign or information on a flat tariff or TOU pricing plan, according to Thiele.

"These complex, multi-channel interactions also need to be stored in a compliant way, for example to prove that a disconnect notice was actually sent," he added.

Increased risk
With increased information comes increased risk if privacy concerns are not addressed.

A movement in the utility, and especially in the smart grid, recognizes that any network implementation requires privacy principles built into the overall project framework.

Smart grid systems should ensure that "privacy is the default, and that no-action required" is maintained to prevent invasive events from occurring, according to Ontario Information and Privacy Commissioner Dr. Ann Cavoukian. That privacy needs to be built in with an end-to-end approach throughout the "entire lifecycle of any personal information collected," she added.

Regulatory compliance
Regulatory compliance in the form of environmental compliance is also important. After all, environmental responsibility is one of the original drivers for the smart grid and more efficient utility operations.

Solar, wind, and other renewable energy sources play an increasing role as stakeholders deal with the challenges of grid integration. Even the traditional one-way flow of energy is changing to a new, two-way model.[10]

As consumers with solar roofs or other renewable energy sources begin producing their own energy, they'll have the option of storing it or selling it back to the utility. Those net gains in energy can be more easily documented and communicated to relevant parties through newer, more robust EIM systems.

This type of energy use puts additional demands on the system via electric vehicle and plug-in hybrid charging. Utilities and customers need real-time information about the load the system can withstand depending on whether cars are charged during peak or off-peak hours. This information should be clearly communicated with some type of bill insert or onsert, or personalized account information.

Electronic billing and communication
The focus on electronic billing and communication will relieve utilities from the burden of excessive paper use. Huge potential exists in the United States to move away from paper bills, but the transition will be slow due to market fragmentation and a propensity of much of the population toward receiving paper statements, according to McClelland.

"Receiving payments electronically also means funds clear fast, you reduce the number of days outstanding for your customers, reduce the bad debt, carbon emissions and paper. This is also in compliance with the Clear Skies Act," McClelland added. ●

[10] Creating Your Smart Grid – A How-to Guide. Produced by Government Technology.

The Future is Bright with the Right System

▶ Industry deregulation along with regulatory and environmental mandates will push utilities to engage with customers in a more integrated and holistic way. As utilities engage more frequently and more deeply with consumers, smart customer engagement will become the norm.

Proper information management and sharing will surely lead to deeper engagement and long-term retention, despite the challenges of an industry unaccustomed and often resistant to radical change.

Utilities are facing the additional challenge of creating lasting customer relationships within the constraints of an aging infrastructure and physical asset limitations. The use of advanced CRM/EIM systems will aid the process and allow utilities to more fully and effectively understand their customers' needs in order to serve them more efficiently.

These systems can realize internal operational efficiencies for utilities and more informed choices for customers. The right CRM/EIM system interfacing with customers through the touch points they prefer means harmony between utilities and their customers for a long time to come. ●