The changing utility-customer relationship
It's time for utilities to stop being reactive and technology-led, and to start being innovative and purpose-led.

Lessons learned from customer and billing transformations
Don't let the millions you invested to get to day one destroy value on day two.

Digital: Whose job is it?
As spending outside the IT department rises, so do the risks. Whose job is digital?
“This issue of Plug in focuses on a question that continues to challenge the power and utilities sector: Why do so many utilities struggle to satisfy customers? We explore key lessons learned and how to chart a more effective path for the future. The bottom line: aligning innovation to purpose is the clearest path to success.”

David Townshend, Global P&U Customer & Billing Transformation Leader
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The changing utility-customer relationship

Utilities know that they need to interact with customers in an entirely new way. However, many companies are struggling to understand their customers well enough to know what this “new way” should be, while many others struggle to execute the initiatives that they define.

To be sure, the industry boasts its share of successful innovations. For example, US utility ComEd used crowdsourcing to gather customer input for a bill redesign. And demand-response programs have helped to reduce energy demand from residential air conditioners at summer peak times. But it’s far more common to hear stories of customer dissatisfaction, incoherent strategies and failed projects.

In the new utility marketplace, customers are demanding new products and services, and formidable new competitors have emerged. How should utilities respond? David Townshend says utilities must develop a “purpose-led” approach that will help them meet customer expectations and innovate in a way that supports their overall business goals.
Many utilities underestimate the amount of change that a C&B transformation brings about, and they don't provide the resources needed to successfully manage the post “go-live” period. These companies run the risk of inadvertently destroying value in their organization.

In many countries, billing remains the number one customer complaint, despite substantial efforts by utilities to upgrade or overhaul their customer and billing (C&B) systems. European utilities have spent hundreds of millions over the last decade, and US utilities are embarking on massive transformation projects to replace obsolete, 30+ year-old legacy systems. But it’s a sobering fact that utility customer satisfaction scores continue to lag those of other industries.

What’s the way forward? What products and services should utilities develop to satisfy customer demand? And how must utilities change in order to provide the revenue and technologies needed to support these new capabilities?

This issue of Plug in explores these critical questions and provides a road map to help utilities navigate the new customer landscape. The bottom line: aligning innovation with a well-defined company purpose provides utilities with the clearest path to success in the transformed market.

Reality check – it’s tough out there

Navigating the power and utilities (P&U) sector is difficult, particularly given the amount of change underway. The sector is transforming on multiple fronts:

► Empowered customers (see “Your customers’ expectations are rising: shouldn’t yours?” on page 6)
► Market reforms
► Regulation
► New competitors
► Digitization through big data and analytics
► Infrastructure investment
► Cheap renewables and distributed generation

P&U organizations are more familiar with incremental change than transformational change. However, this is a new world, and new strategies and business models are needed to remain competitive.

When we think about companies that are great at understanding and engaging with their customers, the P&U sector is not top of mind. Why do so many utilities struggle to satisfy customers? We see challenges in three key areas:

- **Business challenges**
  As they struggle with the sheer scale of change, utilities continue to respond with reactive strategies. The move from customers as meter IDs to customers as the focus of the business has been groundbreaking. But utilities now must also cope with increased customer expectations, environmental and other regulatory changes and nimble, new competitors. And most utilities don’t understand enough about their customers to meet their expectations, make informed decisions and innovate effectively. (See “The utility of the future” on page 12.)

- **Technology challenges**
  From smart metering and associated “beyond the meter” applications to the numerous components that make up the digital agenda (e.g. mobile, social, cloud, big data), utilities must differentiate between the technologies that can drive value in their business from those that are solutions looking for a problem. And investment in technology innovation must be balanced against the need to make improvements in core customer and billing applications. (See “Digital: Whose job is it?” on page 18.)

- **Execution challenges**
  Utilities face a number of challenges in the execution of C&B transformation programs, from delivering on time and on budget to ensuring that the new system provides real value to the utility. Many utilities underestimate the amount of change that a C&B transformation brings about, and they don’t provide the resources needed to successfully manage the post “go-live” period. These companies run the risk of inadvertently destroying value in their organizations. (See “Lessons learned from customer and billing transformations” on page 28.)
Different priorities in different regions
Any major transformation activity carries significant costs and challenges. The replacement of a utility C&B system is no exception. Often, a number of factors must converge before utilities gather the courage to tackle the replacement or major overhaul of the system on which they are fundamentally dependent. We see some key regional differences in what utilities are now prioritizing:

**Western Europe**
Deregulation took hold here in the 1990s, leading many utilities to replace their customer relationship management and billing systems when they unbundled. Consequently, most European utilities have relatively new billing systems in place, with the focus in recent years on upgrades to incorporate smart meters, digital channels and distributed generation to maintain competitiveness.

**US**
The US market diverged from Europe when deregulation was derailed by a number of significant events, including the backlash following the collapse of Enron in 2001 and the Northeast blackouts of 2003. This left utilities in many states with legacy systems that are still in operation today. These aging systems, averaging between 15 and 40 years old, are increasingly fragile under the strain of bolted-on programs to handle digital channels and the regulatory push for energy efficiency. In many cases, this is leading to spiraling overheads to maintain systems and increasing risks of failure. (See “Innovation: a US perspective” on page 24).

**Emerging markets**
Here, there is a strong focus on connecting customers to the grid to improve access to electricity. Utilities that undertake their first substantial transformation project face a number of challenges, such as a local workforce that may lack the necessary skills and experience. With little competition and significant financial challenges, utilities in emerging markets have widely varying levels of systems modernization. Some are skipping traditional delivery models altogether in favor of making immediate use of new technologies. Thus, while some markets are still contemplating the introduction of call centers, electronic invoice payment and the use of social media, others are already using smart-enabled prepay meters to improve revenue collection.

What are the implications for utilities?
How should utilities respond to this fast-changing market? My number one recommendation is for a utility to be “purpose-led.” That is, utilities need to develop a clear view of what their target customers expect from them and the path they will take to deliver on these expectations. This view must then be translated at an operational level and not simply exist as a strategy document that gathers dust on a shelf. This means defining the capabilities a utility must develop and identifying the technologies required to support them. This purpose-led approach will help companies ruthlessly weed out activities and projects that do not support their overall business goals.

By managing a utility’s portfolio of projects on a purpose-led basis, executives have a method for:
- Determining what business results they want
- Mapping the vision into a set of key operational capabilities to deliver the results
- Evaluating which technologies will actually add value in support of the purpose
- Measuring if they are on course
- Taking corrective action if projects go off course

New entrants often excel at taking a purpose-led approach. According to UK consumer advocate *Which?,* the top-ranked utilities for customer satisfaction (82%) are agile start-ups with simple tariffs. These two utilities have a clear understanding of the customers they are targeting and the products and channels they will provide to them. Their customer ratings are in stark contrast to those of the incumbents, which are all at the bottom of the rankings – the lowest score being 41%.
Utilities must be “purpose-led” and develop a clear view of what their target customers expect from them and the path they will take to deliver on these expectations. ... This purpose-led approach will help companies ruthless weed out activities and projects that do not support their overall business goals.

Making each investment count
What are the consequences of not being purpose-led? The worst-case scenario is that you invest millions in systems or processes that won’t help you deliver your strategy and that do not add any value to your business.

For example, suppose you have two projects running – one to put in a new interactive voice-response (IVR) system, the other to improve your website. Without a clear purpose for both projects that is aligned to your business strategy, you could end up wasting large sums of money and building redundant capability. If the digital department expects 80% of a particular transaction to be done on the website, and the customer service department expects 50% of the same transactions to come via the phone, the end result will be a wasted investment in IVR and dissatisfied customers.

A purpose-led utility will have a clear strategy for which customers it wants to serve by which channels and will build the capability and technology systems to fulfill this purpose. A utility that adopts a purpose-led approach will ensure each and every project is aligned to its strategy, and eliminate the type of conflict described above.

Looking ahead
At the moment, I don’t believe any utility can look five years into the future and say definitively what products and services it will offer and which of those will make a profit. Success will depend on maintaining a clear purpose throughout the transformation of the sector and resisting the temptation to chase every market trend or technology innovation. At the same time, utilities must improve their agility to transform and take advantage of capabilities and technologies that will differentiate them in the pursuit of their purpose. Flexibility will become a key competency – in both the way the organization operates and the way its systems operate – but always in support of a well-defined purpose.

These are challenging times to run a utility, but they are also times of great opportunities. Utilities that get it right will help to shape the future of this sector.

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Over the past 17 years, David Townshend has worked with utilities in nine countries: Australia, Belgium, China, Hong Kong, Ireland, Italy, Singapore, South Africa and the UK. His career with utilities had an adrenalin-charged start in the late 1990s, when he worked on a client project that – for unavoidable reasons – went live with a non-production release of ERP software. "It was hair-raising in every respect, but a brilliant introduction to utilities." David says he enjoys working globally and seeing what changes from region to region and what stays the same. “I particularly like working on large-scale transformation projects, and seeing them through implementation. It’s very satisfying to be involved with a client for a long period of time, and to be considered absolutely integral to their team.”
Your customers’ expectations are rising: shouldn’t yours?
The core assets of any energy retailer are its customer relationships and its data. The bad news is that, for most utilities, the customer relationship is a damaged asset. Most of the damage comes from bad data and processes based on that data.

The good news is that smart offers an opportunity to get the data right, improve the relationship and strengthen your business.

**Damaged relationship**

“Customers are your greatest asset” is something you have undoubtedly heard from strategic consultants, followed by advice to exploit this asset by cross-selling. However, there’s an underlying problem: you are unlikely to have a customer’s permission to cross-sell until you get your core business right.

In most countries around the world, the utility brand is damaged. Why? Because utilities aren’t getting customer interactions right – errors are made, complaints ensue and trust erodes. Both the “multi-utility” and “associated goods and services” models have been tried many times, but only a few have been successful.

Whether you’re in a fully competitive market where trust has been eroded by service defects, or in a regulated market with weak incentives to invest in reducing service defects, there is a solid business case for improving your customer relationship. To do so, first you need to understand what customers want; then you can decide how to deliver on that expectation.

For customers, an ideal utility relationship is one in which they never need to speak to you, argues Richard Postance. So use smart to fix lingering data problems – and build a relationship where everyone’s happy (yes, really).
Now for the good news: no one else in the energy sector understands this either. And, while we’ve heard plenty about new market entrants swooping in and stealing utilities’ customers, I think this overstates the case for nontraditional players in the P&U sector. We’ve seen many new entrants underestimate the complexity of the energy market in terms of supply and demand, the variable cost of electricity and the layers of regulations. Even Google discontinued its first attempt to enter the P&U space with a consumption visualization and energy-saving advice solution, and retired the PowerMeter Service at the end of 2011.

What customers want
At heart, there’s a mismatch between the way utilities define good customer service and the way customers define it.

Customers have been trained to expect free and accurate billing. Think about your relationship with an online company like Amazon or your favorite credit card: over the course of a year, your relationship probably involves:

- Hundreds of transactions
- Refunds
- Returns
- Purchases on different channels (website, over a mobile phone, in shops and so on)
- Different payment types (PayPal, credit cards, vouchers and others)
- Items sent to different people or gift-wrapped

How often have you had to speak to someone there? How often has the company made an error on your transactions? If you’re in the majority, there are no errors and you never speak to them. Their service is world class.

From the customers’ point of view, all they do with energy companies is buy energy and get billed monthly – so why are their bills wrong? Where is their free and accurate billing? And why are common processes, such as moving house, such a hassle? In the UK, the rule of thumb is that one-seventh of the population moves every year. That is not a minority business process – it’s so frequent, it ought to be done perfectly. However, moving house is a common point of defect, requiring customers to spend time on the phone with customer service and to become more and more dissatisfied (see “Contact with customer service erodes loyalty” below).

Think of dissatisfaction as leakage: each time you trigger the need for a customer to contact you to resolve a problem, you are leaking satisfaction points. A perfectly run utility is one you never have to speak to. Zero defects = zero leakage.

Contact with customer service erodes loyalty
Research from The Corporate Executive Board Company shows that the more frequent interactions people have with customer service, the less satisfied they are.

56% report having to re-explain an issue.
57% report having to switch from the web to the phone.
59% report expending moderate-to-high effort to resolve an issue.
59% report being transferred.
62% report having to contact the company repeatedly before the issue is resolved.

These results are somewhat alarming for customer service centers: customers are four times more likely to leave a service interaction disloyal than loyal. It seems the very interactions that should be building customer loyalty are actually destroying it.
It’s not enough to aim for modest incremental change (i.e., better than last year). It’s not enough to aim for best in the industry (better than Utility X). What you need to aim for is world class.

**Raise your ambitions**

Utilities need higher ambitions. It’s not enough to aim for modest incremental change (i.e., better than last year). It’s not enough to aim for best in the industry (better than Utility X). What you need to aim for is world class.

World class means customer service that has zero defects and results in zero contact. Because the more often customers have to contact a company — rather than get on with their daily lives — the more dissatisfied they become.

Why aren’t utilities better at these data processes? Obviously, there are a number of factors that come into play, but I believe the root cause is the sector’s historic focus on assets. P&U companies have focused on managing their assets well to deliver a good energy product … and they’ve largely succeeded.

It’s only now, in the midst of the transformation the sector is undergoing, that the model is moving toward a customer focus. And with that comes a need to look at the business in an entirely different way.

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**Case study – improving the customer journey**

EY helped an energy retailer with 16 million customers to improve its customer experience. Although the company had a very strong function alignment, with contact centers, metering, billing and operations all performing well, it hadn’t focused on the customer’s end-to-end interaction with the company. We helped the retailer to design all of its customer journeys and the key measures, underpinned by savings over five years that have exceeded £100m.
Smart: an opportunity to get data right and cut costs

Smart is being positioned in many markets as a golden opportunity to enter the digital age and cross-sell other products and services. But I believe the most significant opportunity to be derived from smart is to reduce the cost of operations by having better quality data for what utilities already do.

Ask yourself this: Even if you had the best and most innovative products and services on the market, would your customers buy them from you? Without a trusted relationship, they won’t.

While the core business of a retail utility is hard work – highly regulated, high pressure on margins – that’s what needs to be mastered first. Because until utilities are brilliant at it – and by this, I mean reliable and accurate with near-zero service defects – customers will not take that leap of trust and buy additional services or products from you.

So what actions should utilities take as they transition to smart? I see three data opportunities:

1. **Shut down the old account cleanly.** This is not a trivial point because many of these accounts have multiple data issues. It could be the meter reading has always been a little bit out of sync or bad debt is associated with the account. It may not be clear who the billpayer is. The point is, if you don’t close down that account cleanly, you will incur significant costs later on and leak customer satisfaction all the while.

2. **Start afresh with good data.** There will be new systems set up with associated data for each customer. This is an opportunity to get the data right and start the relationship on the right foot. Seize that opportunity and avoid eroding the value of your smart investment by carrying over bad data.

3. **Keep it clean.** Data cleansing is often one of the first things to go when utilities are trying to cut costs. It doesn’t have a direct line of sight, and the benefits can seem theoretical. But in fact, clean data is essential for good customer processes because data pollution is insidious. All you need is one mistake, and it taints trust in the rest of the data. Think about a bottle full of drinking water – if there is just one drop of sewage in that bottle, there goes your confidence in the rest of the water.

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**Case study – reducing the costs of bad data**

EY worked with a major UK energy retailer on improving customer contact. We identified that £80m per annum was directly at stake from poor data quality. In operations, 9% of the calls were directly related to information that had either already been provided or was within the organization but unused. Poor data quality also meant that when acquiring new customers, the retailer could not rely on the data it had collected, resulting in lost sales and higher acquisition costs.

Another major energy retailer asked us to help reduce costs from what it called “bad contact” – when customers rang the call center over issues the retailer thought were resolved or when customers did not contact the call center as requested. We helped the energy retailer to review its entire customer contact base, identify data mistakes and correct the problems. As a result, the retailer was able to reduce bad contact by 34%, as well as the associated costs, approximately £32m over three years.
Taking action
Strategy consultants are right to highlight customers as an asset; in theory, cross-selling is an attractive way to boost margins at a time of pressure on energy prices. But what they tend to underestimate, due to a lack of operational experience, is how difficult this is in reality.

At EY, we believe that the foundation of a good utility business is a robust customer relationship and robust data integrity. To achieve this, utilities need to raise their expectations of what good service looks like. They need to aim for world class and earn back customer trust with excellent service in their core business, before trying to cross-sell with smart. There is no goodwill bank upon which to draw should things go wrong.

Our experience (see “Case studies”) is that investing in getting the data right reduces operational costs and improves satisfaction. Utilities can choose to tackle data quality and service excellence on their own, or they can tackle it when a regulator insists, due to a high level of dissatisfaction from customers.

At this point, raising your expectations to the level of your customers’ and putting in place service excellence offer a more solid return on investment than anything that will come from attempted cross-selling to dissatisfied customers.

Case study – getting it right with smart

EY advised an energy retailer that needed to deploy smart meters to 7 million customers on the end-to-end customer experience, from initial query through to successful bill payment on a new smart meter. Beyond cost savings from avoiding physical meter readings, key to this project was using smart to improve bill accuracy, reduce calls to the call center about inaccurate bills and improve communication with customers through their day-to-day understanding of energy usage. This program enabled the retailer to achieve operational savings of £10 to £15 per customer per annum.

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Richard trained as an engineer and worked in biotech and technology for the first decade of his career. After a great deal of travel, he found a gold card wasn’t all it was cracked up to be and began focusing on the P&U sector in 2005. His role involves advising clients on a wide range of projects, from applying big data to big assets like new nuclear plants through to defining the commercial arrangements that allocate equitable shares of money to retailers, distributors and transmission owners. “I am one of those people who enjoy large, complex projects. And nothing beats solving the conundrum of how to get fairly priced energy that drives the growth we need in a sustainable way. Now that’s a challenge.”
The utility of the future
Faced with a sector in transformation, in which seemingly every facet of the business is in flux, there appear to be two common approaches to tackling the future: “wait and see” or “innovation hyperactivity”.

- **Wait and see.** Utilities in both regulated and unregulated markets can be tempted to play it safe. So they stand on the sidelines, let others experiment with new ideas and see how the industry shakes out. While following the public-service playbook of risk aversion is common, the sector is changing much too quickly for such a passive approach.

- **Innovation hyperactivity.** Companies know the traditional utility model is broken but are unsure what should take its place. Feeling an urgency to act now, they have shifted into overdrive, developing and launching multiple programs at the same time. They’re moving at a furious clip but without a clearly defined road map, which breeds confusion and inefficiencies.

The latter group has one thing right: utilities must move fast. But there’s a better way.

How should power and utility (P&U) companies decide which products, customers and channels to focus on for the future? A clear vision, excellence in “front-office basics” and agility are needed to get it right.

**Cornelius Anger** reports
Prioritize the right ideas, quickly

Moving quickly does not have to mean moving chaotically. Instead, utilities should ruthlessly prioritize their efforts with an eye toward what will deliver the greatest impact to their business.

This means focusing on the most promising ideas from the outset. Utilities need to get better at data analytics, so they can measure the uptake and profitability of new products and services and quickly decide to scale up, modify or exit.

Historically, this is not a process utilities have been good at. It tends to take a long time to introduce a new product, and even longer to work out if it’s actually profitable. In short, utilities must be agile if they are to build the front office of the future and successfully innovate and compete in energy retail.

The front office of the future: Where to begin?

So, what might a utility’s front office of the future look like? The particular starting point will depend on factors such as regulatory climate and appetite for risk.

But the building blocks themselves are the same for any utility, as shown in Figure 1.

There are two overarching steps: achieving excellence in what I call the front office “basics,” and then – and only then – attempting to innovate and roll out new products and services. For most, a great deal of work needs to be done on the first step to get the proper foundation in place. I would argue it is only at that point that utilities can succeed in the new energy marketplace.

So what does this entail?

1. Optimize costs

Utilities need to further advance their customer operations to reduce costs and improve the customer’s experience. Examples include:

- Applying a systematic target-costing approach in designing customer journeys for different customer segments, using their respective customer lifetime value as a starting point
- Implementing rigorous and seamless workflow management along all sales and service processes in order to identify and manage bottlenecks, as well as to eliminate leakage (i.e., the loss of customers due to the utility’s inability to finalize a customer-facing process in a certain period of time)
- Driving the shift to customer self-service, starting with high-volume, low-value transactions first
- Making use of external service providers to perform tasks that utilities often fail to do successfully because of their public service history and the lack of proper incentives for their own employees, (e.g. the credit and collection function, where the use of external service providers results in a significant improvement)
- Optimizing or overhauling legacy IT systems to support the sales and billing of new products and services across multiple channels

Figure 1. Building blocks for the office of the future

**Excellence in front office “basics”**

1. Optimize costs
2. Understand your customer
3. Create customer loyalty
4. Master the channels
5. Use deep customer knowledge to innovate
2. Understand your customer

This is where many utilities are data rich but insight poor. Despite having a massive amount of customer data at their disposal, most companies fail to collect and analyze the information systematically. This is an enormous opportunity squandered.

As a result, answers to key customer-related questions often remain elusive:

- What drives up costs in the sales and service operations?
- What products and customer segments are the most profitable, and which ones are losing money?
- What does it really cost to acquire and manage small and medium-sized business customers compared to residential clients?

Once P&U companies have a clearer picture of their customers, they can more accurately predict what different groups of customers want, need and will buy. This increases the likelihood of take-up and enables utilities to embark on innovation with far greater confidence.

3. Create customer loyalty

Improving customer service is just the beginning. Once they have gained trust from customers by providing excellent core service, utilities should take their cue from leading consumer product companies and focus on building loyalty. After all, tomorrow’s energy marketplace will have many players vying for a slice of the same customer spend.

Customers live in a world where the brand-building tricks of old — coupons, loyalty cards and the like — have been given a digital upgrade. Leading companies have developed robust online platforms that offer value-added services such as product information, free moderated online chat forums, and online games and contests.

Disruption is not a P&U-only phenomenon: universal banking is under severe pressure as well, in particular by advanced digital players like Fidor Bank. Fidor has built its so-called peer-to-peer banking business on “community principles”: its customers interact directly to provide investment advice, (micro) loans and money transfers. This has resulted in a growing and loyal customer base. Traditional banks, much like incumbent P&U companies, that manage to integrate community elements into their business models are much better equipped to respond successfully to the invasion of new, technology-backed entrants than those who don’t.

4. Master the channels

Today’s customers want to interact with companies on their terms, and via the channels they choose. Increasingly, that means digital channels like mobile phone apps, social media platforms, websites, text messages and email. Digital channels have been enabled by the rapid uptake of cellular phones and households with internet access (%) over the last decade, as shown in Figure 2.

![Figure 2. Dramatic changes in communications landscape since 2005](image)

Over the past two decades, banks have made this technological leap to provide omni-channel service: it is now second nature to pay bills and manage accounts over multiple channels. P&U companies need to follow suit and create an omni-channel experience if they are to meet customer expectations.

Smart will help to achieve this if utilities can up their digital game and develop new skills and capabilities. The wealth of data and insights available from smart technology can help to shape the omni-channel experience customers demand.

There is room to explore new types of “offline” channels as well. One company doing this is Dutch utility Essent, which successfully teamed up with consumer electronics retailer Media Markt. Customers who sign a three-year power and gas contract with Essent in a Media Markt store receive a €170 (US$183) shopping voucher for immediate use on any of the store’s electronics products. Six months after the launch of this new venture, Essent had acquired more customers through Media Markt than via other channels during one full year.

5. Product innovation and partnering

Once you have mastered the front office basics, there is massive potential for product and pricing innovation. Power companies that move quickly to offer new products and partner with the right organizations will be the leaders. And the way to move quickly will be to use data analytics to spot the opportunities, test them in the marketplace and continue only with the best and most profitable ones.

Consider developments in Europe. After Germany began phasing out nuclear power in 2011, it had to increase its share of coal power, a move that has not gone down well with environmentalists. New entrant MAXATOMSTROM sensed an opening and began offering the ability to buy power generated 100% from Swiss nuclear power plants to customers who care about their carbon footprint but do not require power generated from renewable energy sources. More than 3,000 customers signed up the first week.

Another German utility, E.ON, has teamed with an electric bicycle retailer to offer discounts on so-called e-bikes to its “green” customers. And British energy company npower is giving customers a free Nest thermostat when they sign up for a two-year, fixed-price contract.

Conclusion

Building the front office of the future and truly innovating require an organizational culture in which risk-taking is embraced. That is quite a shift for many utilities, and agility will be a key skill that makes all the difference.

Utilities need to master the front office basics so that they have a clear picture, based on accurate data, of who their customers are. They need to optimize costs and make sure all their processes
result in the best customer experience for the lowest cost. They need to “test the waters” of the digital world and understand which channels their customers want to use for which transactions. Once these building blocks are in place, they will be prepared to seize the opportunities that innovation offers.

P&U companies will need to support existing employees in adopting a more customer-focused mindset and also look beyond their company, and even the industry, to gain the skills and mindset to create the front office of the future.

The key in all of this will be agility: developing an organization that can evaluate ideas quickly and cast aside those that aren’t working. This is a big shift for a historically slow-moving, risk-averse industry, but the future is calling. It needs to be done. Companies that manage the transition to a more customer-centric business model, which optimizes costs and uses customer knowledge to deliver the innovation customers value, have a good chance to benefit from significantly better operating margins than those that stick to the traditional retail play.

Cornelius understands how utilities can use innovation to improve their businesses and enhance customer experience. His P&U knowledge is complemented by diverse experience working with other industries, including infrastructure, IT and telecommunications. Cornelius enjoys supporting the world’s leading utilities in strengthening their market position and growing beyond their core business: “In liberalized markets, business as usual is not an option,” he remarks. “If energy retailers don’t want to be marginalized, they need to secure assets and earn the right to play in this space. They have to earn permission from customers — and that means improving customer relationships now. The speed of change in the sector should not be underestimated.”
The digital revolution provides energy retailers with an opportunity to win customers’ hearts, minds and wallets. But as spending on technology outside the IT department is rising, so are the risks. How should utilities respond?

Tim Best and Laurence Buchanan report.

Digital: Whose job is it?

In the last seven years, we have lived through the single-biggest technology revolution that the world has seen in such a compressed period of time. Since 2008, there’s been an explosion of smartphones, tablets, social networking, cloud and mobile computing, big data and the Internet of Things.¹
What has the result been? Hyperactivity and fragmentation. A survey by Altimeter found that companies with more than 1,000 employees averaged a shocking 178 corporate-owned social media accounts – Twitter, blogs, Facebook, Google+, Pinterest, Tumblr and others – not including employee accounts. But just 43% said they had a social media strategy.

The pace of change in the digital space is frighteningly fast – for example, consumer technology can reach a critical mass of 50 million users in fewer than 35 days. So what are the implications for utilities and how should they respond?

Surge in spend outside IT department

One of the most surprising things is that through this period of technology-driven change, the chief information officer’s (CIO’s) budget has remained static.

In P&U, CIOs face the huge challenge of maintaining legacy systems while completing transformational implementations of billing systems and smart metering solutions. The bulk of the CIO’s time is spent on these projects – getting them finished on time, on budget and fit for purpose. The IT department simply doesn’t have the bandwidth to take on digital projects.

Instead, it’s the marketing department, almost out of frustration, that has been spending on digital. They’re tapping into third parties or doing it themselves – building front-end mobile apps, outsourcing to cloud computing suppliers and so forth. Some of this has been done with the CIO’s blessing, some has taken place under the radar.

1. There has been a rapid rise in the number of devices connected to the internet, from 200 million connectable things in 2000 to 10 billion in 2013. This is called the Internet of Things.

This ties in with the overall trend we see across sectors: on average, just over one-third of the total technology spend is now taking place outside the CIO’s oversight and control. And as more IT spend occurs outside the CIO’s budget and control, the risks are rising.

**Lack of integration is escalating risks**

Digital projects still need to be aligned to the company’s data strategy, commercial policies, IT architecture and IT/cybersecurity. When they aren’t, they expose utilities to a wide range of risks, including:

- **Financial risks.** Lack of coordination with other departments such as IT could result in duplicated functionality and wasted money. Additionally, there is evidence that technology vendors are raising prices when selling to less knowledgeable buyers outside the IT department.

- **Data breaches and loss of personally identifiable data.** Hackers will target the weakest “connected” part of your IT to access your core systems, whether a mobile app, a connected smart meter or a non-critical business system. If your systems are hacked, your customers’ names and addresses, credit card numbers and other information may be published, or worse, used fraudulently. In the European Union (EU), the current maximum fine for poor data protection is currently capped at €50,000 – there are proposals to raise this to a maximum of 3% to 4% of global group turnover, capped at €100 million.

- **Loss of intellectual property.** If your systems are hacked, valuable IP such as plans and go-to-market strategies could be stolen and used for blackmail, sold on the open market or simply just copied.

- **Share price manipulation.** We have seen hacking aimed at manipulating share prices by shorting the stock. The perpetrators buy the stock, attack the systems and wait for the news headlines about the attack to result in a drop in the share price, at which time they realize the gain.

- **Reputation.** Implementing digital functionality with a completely different image from the rest of the utility can undermine customer relationships and damage any existing brand value. What’s more, in an industry already plagued by low customer satisfaction, any substantial data breaches will erode trust even further.

What’s needed is a closer integration of digital projects, with CIOs and marketing heads working together to help ensure the utility is protected. This will be particularly important as more utilities implement smart technology. (See “Smart: the attack surface just grew exponentially” on page 22.)

**Vendors increase contract value when selling direct to business leaders**

Vendors obtain up to 100% increased contract value.


**Cyber threats on the rise**

74% of respondents cite an increase in cyber threats.

91% of respondents say critical infrastructure is a key priority for protection against cyber threats.

67% of respondents say it is unlikely or highly unlikely they would be able to detect a sophisticated attack.


The “D-suite”

Who should take ownership of customer-facing digital initiatives? Some utilities have appointed a chief digital officer, though this role varies widely depending on the organization – from running websites and apps to being a transformational agent and potentially the next CEO.

Some utilities are creating digital business units. For example, in October 2014, E.ON launched its Digital Transformation Unit, which will drive the digitalization of the company’s retail business across all markets and report directly to the E.ON board of management.

In our opinion, how you structure it is less important than how you adopt and integrate it – because digital is everyone’s job. The world has changed so much that the impact of digital is felt in every single part of the business: it has implications for the business model, the customer experience, the workforce, technology, operations, risk management, cybersecurity, data privacy and so on. A cross-functional group must be involved and provide input.

Digital has such far-reaching implications that it is too big to be any one person’s domain. And the focus of digital must start and end with the customer.

To succeed, we believe that, as a matter of urgency, utilities must:

1. Align their digital strategy and capabilities with the overall company purpose
2. Ensure every digital project delivers a clear value, avoiding “pet projects” and technology-driven projects

Using digital to connect with customers

Innovation around the customer is happening in every sector; it pays to be on top of the latest developments outside P&U. Here are three initiatives that impressed us:

1. **Co-developing products with customers.** Before mobile phone company giffgaff had a product, it launched an online forum to ask consumers, “What do you like and dislike about the telecommunications industry?” giffgaff then co-created products with consumers. Over 95% of its marketing, sales and service is peer-to-peer (consumer-to-consumer) rather than company to consumer. It’s an approach that works: in 2013, giffgaff attracted 405,000 new members to the network and revenues rose 74% while the cost of sales rose only 10%.

2. **Opening up patents.** Tesla Motors offers open access to all its patents to spur development and adoption of electric vehicles. GE released thousands of patents to collaborate with entrepreneurs.

3. **Getting employees up to speed with digital.** Burberry used “upward mentoring” to spread digital know-how in the company. It matched internal digital advocates – enthusiastic users of new digital channels, regardless of age or seniority – with those (often at an executive level) who were less comfortable with digital. This luxury brand believes its digital transformation has been the key to tripling its revenues since 2006.
Smart: the attack surface just grew exponentially

It used to be that security consultants built walls around the organization. The strategy was to put in a perimeter and keep intruders out.

That doesn’t work anymore: with the Internet of Things, where so much is connected, there is no perimeter. No utility can say, “That’s mine inside this perimeter and anything outside it I can disregard.” The intruders are already inside the network.

Think about your weakest link: think about how big the attack surface is when everything is connected and everything is visible.

Smart meters are a great case in point. There’s no longer a locked box on a wall that only the meter reader can access. Now it’s a live connection on 3G or Wi-Fi.

There is both opportunity and threat. On the one side, there is an opportunity to completely reinvent the billing relationship to make it simple and accurate, to build trust and, in time, extend your services into the smart home. But on the threat side, if every single connected object is subject to cyber attacks, then smart technology is vulnerable.

What’s more, the smart meter – which is IT and was designed as such – is connected to operational technology, or OT. And OT was not designed to be connected to the internet – it never had an IP address. But now, smart meters are being mixed with OT, which may have vulnerabilities built into it that we just don’t know about yet. The convergence of IT and OT creates an even bigger attack surface. So utilities need to ensure an integrated approach to digital that includes cybersecurity from the onset.

This is only the beginning

In a white paper, technology leader Cisco stated that despite all of the changes we’ve seen and the explosion of digital connectivity, “99.4% of things are still unconnected.” In other words, we haven’t even reached 1% of the potential connectivity that is coming.

Digital provides P&U companies with an amazing opportunity to take their place in customers’ hearts, minds and wallets. There’s no question that it will require cross-functional leadership to get it right – the head of marketing plus strategy, CIO, legal, risk and cybersecurity. And it will take everyone in the organization regarding digital as the job they must succeed in.

In essence, digital transformation is about uniting technology around a shared vision – one that is built from the bottom up, embraced by everyone and protected by everyone. There’s no room for silo mentalities anymore.

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Laurence is a recognized authority and evangelist on customer experience, CRM and digital transformation. He spent a decade at SAP, where he was Vice President for CRM, and moved into consulting in 2008. As Head of Digital for EY Advisory, Laurence helps clients to understand the opportunities and threats posed by digital, the impact of disruptive technologies and how to build a customer-centric vision and strategy. He was recently named one of the leading vendor influencers worldwide by ZDNet. “The challenge for large companies is that their organizations were never designed for a world that moves in 30-day cycles. Digital affects companies from top to bottom – it’s turning sectors on their heads,” he declares.

Tim graduated with a degree in IT 20 years ago and started his career with CMG, providing IT consulting services to government agencies including the Ministry of Defense. He moved into security consulting in 2008 and has never looked back. “Cybersecurity right now is a question that no one has fully answered. It’s much more about monitoring, detecting and alerting than the ‘protect the fortress’ approach of 20 years ago. And the role of IT is changing – from a group of coders in the back office focused on risk and compliance to much more of an operational role. I like the fact that no one knows what’s coming next – connected homes, connected cars ... . I find the speed of change exhilarating,” Tim says.
Innovation is a critical tool for US utilities — but will they have to do it differently?

Jeff Miller reports

Innovation: a US perspective

While other industries have historically focused on innovation as the path to grow revenues and profitability, utilities have often stood back and watched, under the pretext of risk aversion.

The time for watching is over. The P&U sector is in the midst of a transformation. For utilities, innovation around the customer is both a competitive threat and a real opportunity. In the US, this transformation is being driven by advances in distributed energy technologies and business models (e.g., SolarCity, Vivint); energy management capabilities (Opower, Nest); and digital capabilities (customer mobile applications, social media).
How can innovation help us better understand customer behavior?

How can we use innovation to optimize customer investments?

How can we develop capabilities around innovation to improve the customer experience and realize a real earnings impact?

Leading practice in understanding customers

Not surprisingly, when we talk about innovation, California is at the forefront. The regulatory climate continues to drive change, building off an energy-efficiency target of 10% reduction in usage over 10 years from 2006 to 2016 (which, in some areas, has been raised to 15% by 2020) and a renewable portfolio standard of 33% by 2020 (which could potentially be raised further).

The effort to meet these targets has resulted in a market rife with comprehensive programs, financial incentives and large numbers of employees dedicated to understanding customer needs and developing targeted programs. For example, the three California investor-owned utilities – PG&E, Southern California Edison and SDG&E – each have large groups (e.g., more than 100 program managers) dedicated to supporting energy-efficiency programs.

These companies and others are able to create targeted programs because they have captured information on their customers and are developing robust analytics that incorporate:

- **Customer characteristics** – information on customer income, age, usage history (i.e., interval data from advanced metering infrastructure (AMI) meters), bill payment patterns, program participation, customer interaction history and so on – all of which can be used to make more effective investment decisions regarding how to best serve customers.
The time for watching is over. The P&U sector is in the midst of a transformation. For utilities, innovation around the customer is both a competitive threat and a real opportunity.

Segmentation and targeting – approaches to customize and personalize messages, as well as target customers appropriately based on expected responses to specific program offerings

Customer journeys – detailed understanding of how customers expect to interact with the utility including voice/email/text communication and responses to utility programs

At the same time, new market entrants have created business models based on understanding and predicting customer behavior. If traditional utilities do not provide similar capabilities (either through partnerships), they face a real threat of disintermediation through or in lieu of partnerships, they provide similar capabilities (either through partnerships), they face a real threat of disintermediation through or in lieu of partnerships, they provide similar capabilities (either through partnerships), they face a real threat of disintermediation through or in lieu of partnerships.

Getting a return on your customer investments

For years, J.D. Power, ACSI and MSI have been providing data on utility customer satisfaction that generally show utilities lagging behind other industries. ACSI’s 2014 Customer Satisfaction Benchmarks listed utilities in 7th place out of 12 industries, with only two utilities (Atmos Energy and Sempra Energy) making the top 60 US companies for customer satisfaction. Utilities may be interested to learn that the route to satisfying customers is not to focus on “delighting them” but on making their lives easier. (See “Your customers' expectations are rising: shouldn’t yours?” on page 6).

In the Midwest, ComEd has made great strides in increasing customer satisfaction. It found the storms of 2011 a real wake-up call. ComEd CEO Anne Pramaggiore spoke to EY about how the company moved from the bottom of customer satisfaction ratings by making targeted investments.1

“We have built an innovative customer impact model which allows us to measure the impact of any initiative we introduce on customer satisfaction, call center performance and prices. This helps us to prioritize changes.”

What is unrecognized by many utilities is that an improved customer experience often leads to improved regulatory relationships. When EY has assessed the linkage between customer satisfaction and regulatory outcomes, it is clear that companies with poor customer satisfaction see a lower allowed return on equity and a higher percentage of disallowances.

Innovation in practice

Going forward, we see four key areas where US utilities are focusing on innovation to drive improvements in the customer experience and, ultimately, enhance profitability:

1. Digital channels – many of our clients are innovating around mobile applications, most often related to billing, usage or customer data and outage information. A recent study by J.D. Power showed that 57 of the top 66 utilities offer customers an online mobile channel, either through a website or a mobile app, though customers’ perceptions of these services were relatively uneven.2

One innovator in digital capabilities is SDG&E, which provides customers with the ability to subscribe to communications on usage or spend, aligned with pricing tiers, and sends customers email or text alerts as well as savings tips when particular usage or spend levels are exceeded.

2. New product and service development – advances in technology are creating new capabilities for product and service delivery as utilities partner with start-ups to deliver new customer experiences. Home energy management is leading the way, with offerings from energy management providers (Opower, Simple Energy, Tendril, C3) and deployment of “learning thermostats” (Nest, Honeywell, ecobee). Duke Energy is positioning itself as a leader in this area, having set up its Center for Innovation that supports new technology formation and development, including commercializing emerging technology products and services.

3. Distributed generation (DG) – utility customers increasingly see value from DG due to the combination of available incentives and declining prices for solar PV. The self-generating consumer has become a “prosumer,” with Wal-Mart, Google and Apple all making significant solar investments at their facilities. At the same time, utilities such as Arizona Public Service and Central Hudson Electric are taking advantage of regulatory flexibility to own and operate (and rate base) solar assets, capturing the value of distributed solar investments.

4. Data analytics – while big data has been a buzz in the industry for the past few years, leveraging data analytics needs to become a regular part of doing business for utilities. Similar to the SDG&E and Duke examples above, utilities must learn to be more agile, leveraging analytics to scrutinize which products and services to carry forward or where to invest. Similarly, analytics can provide opportunities to increase profitability through call center optimization, revenue protection and credit and collections.

An area that could prove to be a real enabler of innovation is the wave of new Customer and Billing (C&B) systems deployments. A recent EY survey revealed that nearly half of US utilities either need a major system upgrade, or an outright replacement, of their C&B systems in the next five years. These new systems will

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provide a wealth of customer data across different communication platforms and support the delivery of new products and services — provided utilities avoid the mistakes made in past implementations. (See “Lessons learned from customer and billing transformations” on page 28.)

**Setting up to innovate: culture change needed**

The largest barrier preventing utilities from innovating is culture. Too many utilities fail to have a customer-first mindset, which is the foundation for innovating around the customer.

There is no “silver bullet” or easy solution to this one: a customer-first mindset is something that is built from the ground up. But the effort is worth it. For example, ComEd listened to employees’ requests for more autonomy and flexibility to resolve customers’ problems. “We created what we call ‘red rules and blue rules’ — one set you cannot bend, but the others are flexible,” said Pramaggiore. “Now, if a customer pays arrears to within a certain percentage, we’ll reconnect them, or our representative can waive the late fee. We’ve had a great response: our employees feel more empowered, and we are resolving customer concerns more simply.”

**So how can utilities embed a customer focus into their culture?**

1. **Set an expectation that everyone serves the customer:** from call center staff to linemen working outside of a customer’s home, or leafleting in a neighborhood to inform customers of work to be done, every single interaction with the customer matters.

2. **Create incentives:** encourage the behavior you want in employees’ daily work lives. There is an unfortunate tendency to punish employees for getting it wrong instead of rewarding them for doing it right. This can be as simple as having a box where staff can submit recommendations for improvement and recognizing those employees whose recommendations are implemented.

Once you establish a customer-first culture, you will find it is self-supporting and becomes a foundation for future improvements. While not innovative per se, a customer-first mindset in all your employees will prove to be the platform that allows innovation to flourish.

**Data analytics: innovation that improves revenue**

Innovation is happening in the front office (see “The utility of the future” on page 12) and back office. But what is going to make a real difference to your cash?

1. **Call center optimization:** Call center analytics help utilities understand the reasons for different types of calls and develop appropriate responses. For example, customer service representatives can be trained either to reduce call handling times or to extend them by offering different products and services based on the customer’s profile.

2. **Revenue protection:** Utilities can leverage analytics to address fraud or leakage on the system. While all utilities have a program in place, it is not always obvious where theft is occurring. Evaluation of similar businesses and residences across the service territory, supplemented by AMI data, can help to reveal customers that are purposely or unwittingly not paying for their power.

3. **Credit and collections:** Analytics can provide real insight to improve credit and collections performance. Significant dollars are at stake as utilities can increase cash flow, reduce write-offs and eliminate truck rolls (connects and disconnects) by capturing deposits from the right subset of customers and proactively communicating with those customers more likely to pay.

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Jeff has spent the last 20 years as a consultant to the energy and utility sector, advising clients on operational issues across customer care and energy delivery. He is particularly interested in how advancements in technology are driving the utility’s agenda: “Technology is creating a new set of issues for utilities to deal with, from the impact of AMI and grid modernization on the transmission and distribution system to how we address and take advantage of new sources of distributed generation and the resulting drop in prices. This is an exciting time to be working in the sector.”
The utility-customer relationship is changing fast. P&U companies are developing innovative products and services to compete with new market entrants and build customer loyalty. Customers, meanwhile, want to interact with their utility on mobile devices, social media channels and other digital platforms.

A customer and billing system transformation is a high-cost initiative for any utility. The systems are fundamental to revenue collection and customer service operations, so the risks resulting from implementation failure could not be higher. How can utilities minimize the risks and maximize their investment?

Hannah Tayler reports.

Lessons learned from customer and billing transformations

The utility-customer relationship is changing fast. P&U companies are developing innovative products and services to compete with new market entrants and build customer loyalty. Customers, meanwhile, want to interact with their utility on mobile devices, social media channels and other digital platforms.
However, outdated customer and billing (C&B) systems mean many P&U companies are struggling to meet customer expectations (see “Your customers’ expectations are rising: should yours?” on page 6). In a recent EY survey, nearly half of the respondents confirmed they would need either a major system upgrade or an outright replacement of their customer billing systems in the next five years to support business functionality and future requirements. Utilities that don’t upgrade run the risk of falling even further behind the competition.

Many utilities are reluctant to pull the trigger, frightened by the high price tag or horror stories of C&B system transformations gone awry. But standing still is not an option.

**Beyond the basics**

C&B transformations may fail for a number of reasons. But traditionally, resources and risk management activities have been focused on just some of these. Going over budget or over time is probably the best-understood reason, with many of the causes being the general problems that bedevil any IT implementation. These include:

- Ambiguous project scope
- Poor planning and project management
- Inadequate testing
- Poor program governance
- Underestimating project complexity

But there are other requirements for a successful implementation beyond delivering on time and on budget. Utilities need to focus on putting in place a system that meets the needs of the business and delivers the expected business value. They must also prepare for the magnitude of change that the transformation will introduce. And lastly, they need to allocate adequate resources to ensure that the data in the new solution is of sufficient quality to process transactions and provide the reporting information necessary to run core business operations.

On the next page are lessons learned that will help mitigate the risks of failure and promote a successful implementation that is fit for purpose.
Lesson 1
Focus on value and minimize customization

One of the most common mistakes P&U companies make when embarking on a C&B transformation is trying to customize their new IT system as much as possible. This is generally driven by a desire for the new solution to work just as the existing one does. Customization (i.e., making changes to the standard code of the base package solution) is a surefire way to lose focus on value and squander resources, increasing cost and risk. Our experience suggests that targeted implementations reduce complexity and lower project costs by 10% to 15% or more.

The smarter approach is to be strategic. Customize only those processes that are directly related to the delivery of value in the project business case. For the rest of the billing system’s functionality, simply use the standard, “plain vanilla” solutions that come built into the software platform.

For example, C&B systems typically include a process for debt collection that’s been proven to work in multiple markets. While this may differ from past procedures, our experience suggests that companies are better off with the standard configuration, even if retraining is required. The value added by customizing the debt collection function simply doesn’t justify the cost.

Checklist:
▶ Are we confident that any customizations are absolutely necessary?
▶ Have we quantified the value that any customizations will add?
▶ Are the company’s top officials in agreement on the area that will be customized?

Customization is a surefire way to lose focus on value and squander resources. Our experience suggests that targeted implementations reduce complexity and lower project costs by 10% to 15% or more.
There is a massive underestimation of the impacts of projects on operational performance after going live. As a result, C&B implementations can actually destroy value in the organization. A different approach is needed.

Lesson 2

Minimize the post-go-live “storm” by building in agility

There is a massive underestimation of how projects may impact operational performance after going live, both in terms of the type and the magnitude of the change being introduced. While all projects have training and change management work streams, they do not typically apply a scientific approach to analyzing the change impact. As a result, C&B implementations can actually destroy value in the organization.

We are seeing this happen all too often. For example, a year after a European energy company implemented a new C&B system, nearly one million contracts still couldn’t be billed. This led to an investigation by the regulator, plummeting customer satisfaction scores, rising customer churn and ultimately, lost revenue.

Utilities need to protect themselves from the post-go-live storm by accurately estimating both the impact to their overall operations and the length of time it will take the business to become fully up to speed with the new IT system. This requires robust planning and modeling prior to going live, combined with thorough preparation to ensure the organization has the skills and flexibility to react to both planned and unforeseen changes. What you can’t do is pretend there won’t be more work to do.

For the upfront planning, a utility must identify which transactions they expect, in which volumes, for how long, by which channel, and how many people with various skills will be required to handle the work flows. One area of particular focus should be the number of billing exceptions the new solution will generate.

Bear in mind, a new system won’t necessarily equate to a faster turnaround time, especially at the onset. No matter how well-trained users are in the new system, they will need time to become proficient. Participants in a recent survey reported a near doubling of average call times (94%) for billing inquiries because call center employees were collecting more data and had to navigate a higher number of screens.

Yes, increasing call center staff by 30% for six months will raise the cost of the implementation. But our experience shows that the costs of underestimating the extra support required are much higher — in one case, US$160m in unpaid bills and frustrated customers (see inset box “Case study: the costs of getting it wrong”).

Checklist:

- Have we mapped how people’s roles and responsibilities will change with the new system and allocated people accordingly?
- Have we identified likely problem areas, such as users being less than proficient, first-day bugs in the system, problems with data or system performance issues?
- Do we have adequate reporting in place to be able to identify where problems are occurring and have we built in organizational agility so that we can move quickly to address any changes needed after day one, including enough call center and back-office staff to deploy as needed to handle specific post-go-live issues?
There’s an old saying in IT circles: garbage in, garbage out. That certainly holds true for a customer and billing transformation, where poor data quality can wreck a project’s rollout.

Failure to ensure data quality means that the transition to the new system is more complicated and lengthy, leading to potential delays in the overall project. Despite the risks, many P&U companies fail to devote enough attention to the data-cleansing process. Why? Because they naively think their data is clean, because they believe the new system is superior and therefore able to deal with the data inconsistencies, or because they don’t understand the extent of the problems that dirty data cause.

Utilities need to spend adequate resources to ensure that the data quality in the new solution is sufficient to process transactions and provide the reporting information the company needs to run its core business operations.

### Checklist:
- Have we allocated enough time and resources to data-cleansing activities?
- Have we scrubbed the data and eliminated any legacy duplicate customer data?
- Have we mapped the data from the existing system to the new system to make sure everything we carry over is accurate and complete?
- Have we developed a robust process to handle any instances in which the new C&B system requires data that was not held in the current system?

### Case study — the costs of getting it wrong

A US West Coast municipal utility decided to replace its outdated, 40-year-old customer information system. When the new system finally launched in 2013, thousands of incorrect bills were generated. Angry customers flooded complaint lines, which were not staffed sufficiently for the surge of calls. Long wait times of up to two hours or more enraged them even further.

An audit commissioned by the company blamed the botched rollout on inadequate project management and a failure to properly prepare employees. It also found the project’s budget and time frame were not realistic, and inadequate time had been devoted to training staff and testing system readiness.

As focus turned to answering customer complaints and issuing corrected bills, the collections process bogged down, adding more than US$160m in uncollected bills to the company’s debt as of November 2014.

The company mobilized resources to resolve the billing issues and reduce call wait times, including temporarily assigning staff members to help answer the phones. In March 2015, the department said about 60,000 customers remained affected and that a new senior manager had been appointed to oversee customer service and all aspects of the response.

The key is to make every decision by concentrating on what adds value to the business. Everything else is background noise.

### Lesson 3

**Invest in data quality**
Getting it right

While every IT system transformation is different, an examination of past implementations tells us there are three key areas utilities must not ignore if they want to minimize risks and maximize their chances of a successful implementation.

By planning for some disruption once the new C&B system goes live, utilities can allocate resources to likely trouble spots and react promptly to any issues that arise. Upfront planning and organizational agility will be the deciding factors in who best manages the post-go-live storm.

Another key is to make every decision by concentrating on what adds value to the business. Everything else is background noise. Any process or data exercise that does not add value should either be simplified or eliminated.

Finally, the last thing you want to do is carry over bad data. Spend the money on cleansing your data so that your investment pays off, and customers get the benefit of the massive investment that C&B systems require, with fewer errors and better processes.

Hannah has deep delivery experience in customer and billing transformation, having spent more than 15 years dedicated to a mix of multimillion-dollar project portfolios and highly demanding, complex programs and projects. Hannah is an accomplished management professional with a degree in computer science. She’s held a variety of senior technology roles. Hannah enjoys the challenges posed by customer and billing transformations and the opportunity they afford to work with different kinds of utility companies, saying: “No customer billing transformation program is the same. Every program has its own challenges. It requires a lot of focus and is quite demanding, which I like.”
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EYG no. DX0305
GA 099_02010
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