

In association with

OMNETRIC Group
A Siemens & Accenture Company

OMNETRIC Group develops and delivers software solutions and services to energy providers, resulting in industry-leading data intelligence

Data & analytics

SPECIAL REPORT

Published by

**METERING &
SMART ENERGY**
INTERNATIONAL

WHAT WILL IT TAKE TO MAKE UTILITIES HUNGRY FOR GRID-RELATED ANALYTICS?

Digital transformation is at the top of company agendas across the globe, as even conservative estimates suggest that digital optimisation can boost profitability by 20-30%. Despite this reported benefit, the challenge for utilities is that the process of managing data and applying analytics, which sits at the heart of this digital transformation, can seem laborious, even unfruitful. Apprehensions relating to cost, resource, time and ultimately, perceived value are reducing the industry's appetite to achieve a competitive advantage from some of the richest data held by any industry globally. So, what can be done to address these concerns and help utilities get the most value from data analytics?

The good news is that utilities are starting with an advantage, in that the data required to deliver transformative understanding already exists. Energy providers the world over possess a whole host of operational data, capable of revealing useful insights. The need is not to generate more, but for the leaders of these companies to value the management, analysis and interpretation of what is there already, for the benefit of operations and ultimately, customers.

As a provider of integrated technology solutions, we see first hand that the biggest hurdle for utilities is often a fear of the

costs involved. Implementing a quality data management and analytics process can be off-putting for a perfectly functioning organisation with other, seemingly more pressing priorities. Analytics, it can be said, is not 'mission critical'. Yet, for this very reason, utilities shouldn't be asking 'what does it cost', but, 'what value does it bring to the business?'

Take outage intelligence as an example. The opportunity for making a step change in outage management can be found in using the power of data to forecast, predict and assess challenges, days or even weeks in advance. The art of combining and interpreting existing data sets can lead to understanding precisely where the highest level of vulnerability exists on the grid, for example, where forecasted severe weather events are due to hit an area with a high customer population. Once the highest probability of occurrence is isolated and its potential impact assessed, we find much better decision-making is possible, particularly in relation to where critical preventative resource is invested. For example, the risk matrix encapsulating rising water levels, landslides and heavy snowfall, can be furnished with pinpoint predictions informing the relative protection and, if necessary, relocation of key assets in the field.

▼▼ *The good news is that utilities are starting with an advantage, in that the data required to deliver transformative understanding already exists.* ▲▲

The second data analytics hurdle to jump is related to the talent required to make analytics successful. Some utilities confine themselves to a no-go stalemate, because they lack the data science expertise. When it comes to resource, utilities don't need to scale unnecessarily. There is plenty of external support available to bring a mix of platform infrastructure and existing skill to bear. Nevertheless, what is essential is not so much procuring the necessary talent, but ensuring that data scientists, IT experts and engineers from the field, work together to identify the insights the grid data has to offer. That means federating those experts, from their different domains, with their diverse perspectives, to speak the same language. At OMNETRIC Group, we have exactly that mix, but it takes time to nurture that mindset.

The third and final hurdle is about technology, or rather, not about technology. While technology matters, for data to yield reliable and useable results, utilities need to care about the way it is gathered, extracted, combined and examined. While enticing, a 'plug and play', app-based approach tends to silo data, minimising potential results – even generating results that contradict from one department to another. Unfortunately, the other recent technology phenomenon, the platform, sold as a silver bullet to drive utilities' analytics strategy, also over-promises. What is essential, is an open architecture that facilitates integration across a multi-platform landscape and where data is embedded and bi-directional. Utilities should not relegate their data to a parallel world next to their operational systems if they are going to implement central analytics with big data today. Moreover, that shift in architecture will be all the more essential tomorrow when performing distributed analytics (at the edge of the grid) with 'small data'.

Given the evolving nature of the global energy market, the utilities industry has a greater need than ever before to understand what is happening at any point on the grid, at any given time. A prime example of that can be found at CPS Energy in Texas, which, as part of its Grid of the Future project, sought to define and implement its analytics strategy in order to take advantage of data-generated insights from the power grid, generation fleet and other resources.

The largest municipally owned energy utility in the United States has recognised that, for analytics to be valuable, the data used to generate information needs to come from operations technologies, as well as the IT systems that manage related business processes. CPS Energy now sees analytics as a core competency, allowing it to enhance operations and better understand its customers in an effort to provide the best products and services possible.

The bravest within the industry will invest in a diverse ecosystem of technologies worthy of the rich data they hold, and rely on a team of people who are able to navigate the new era of analytics. Those who choose to prioritise such investment will be first to realise the ability of data-driven insight to have a material impact on long-term business performance. This opportunity promises transformative revolution and is one our industry can ill afford to miss.

CASE STUDY

KELAG is a leading energy service provider in Austria that serves around 240,000 customers across the country and beyond. As part of its corporate commitment to developing a 'responsible connection to energy' KELAG has invested in an analytics project aimed at improving its outage intelligence and maintenance planning.

Working with OMNETRIC Group's team of data experts, KELAG's grid planning unit assessed outages and disturbances across its grid that are the result of atmospheric influences such as storms, floods and frosts. With reports estimating that a 48-hour power outage would cost the Austrian economy approximately €1.7 billion, the need for quality outage management is paramount.

By combining sensors and devices planted in the field with digital technology techniques, such as data analytics, the team used over 20 different data sources to provide insight on asset performance, outage risk and the efficiency of maintenance plans.

This project is also helping KELAG make better use of operational data so that it can predict natural disaster damage in advance. By spending more time on planning, monitoring and staging, the team can prevent future grid outages and complex restoration work and make more informed grid investments.

While many large utilities potentially have the resources to deploy the systems and dedicate skilled people to manage their outage intelligence, KELAG was looking for a lighter-touch solution. By partnering with OMNETRIC Group, KELAG benefitted from the insights of advanced analytics without having to invest in costly in-house analytics solutions or hiring skilled – and expensive – data scientists.

Data analytics is proving essential in helping KELAG improve its outage preparation and management, its maintenance planning and ultimately, its business performance. Its reliance on data analytics is transforming it into a smarter and more agile utility, able to respond to real-time insight more efficiently. In the long run, this reliance will raise the standard of KELAG's outage management operations across the board, as well as adding to its competitive edge. **MI**

ABOUT THE COMPANY

OMNETRIC Group is an industry-focused, solution and services company, drawing on the recognised strengths of Accenture and Siemens to solve technology challenges untried by others. Its global team of operations and information technology data specialists are dedicated to providing integrated software solutions for energy providers.

www.omnetricgroup.com