

Better Data Analysis Gives Electric Utilities New Growth Planning Options

Strategies for scenario planning in the
utilities industry



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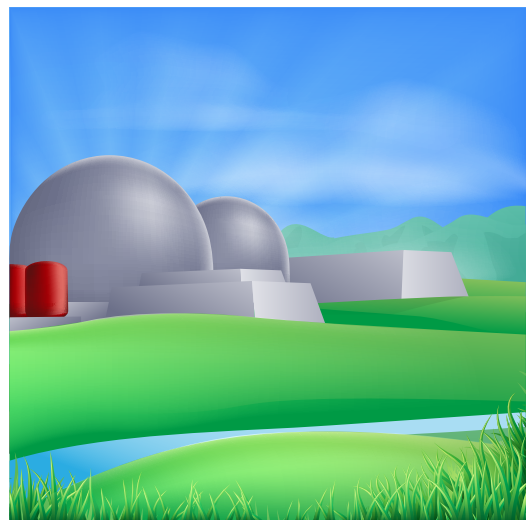
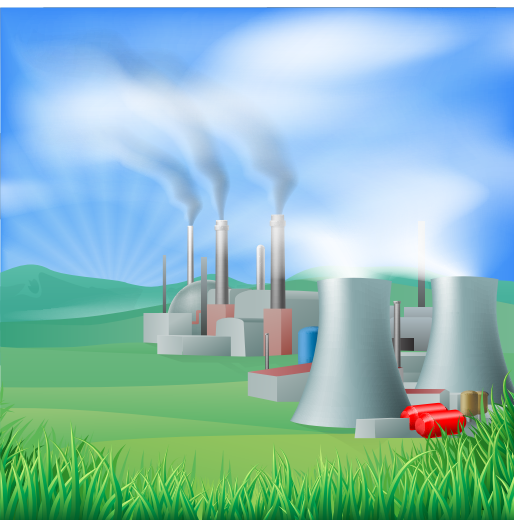
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Published by:

Prophix Software Inc.

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Introduction

It takes many years and billions of dollars to plan and build a new power plant and once operating, it is expected to work for 30-50 years.

Power distribution lines costs hundreds of thousands of dollars per mile and take years in planning and approvals. With costs and timelines like that – and an essential public service at stake – Utilities are looking to every bit of relevant data they can access to plan for, operate and maximize their operations.

Fortunately, in today's intelligent, instrumented and interconnected world, there are oceans of data. Unfortunately, that means oceans of disparate data to collect, sift through and analyze in search of the insights that will help Utility managers make smart decisions on cost-effective benefits for stakeholders.



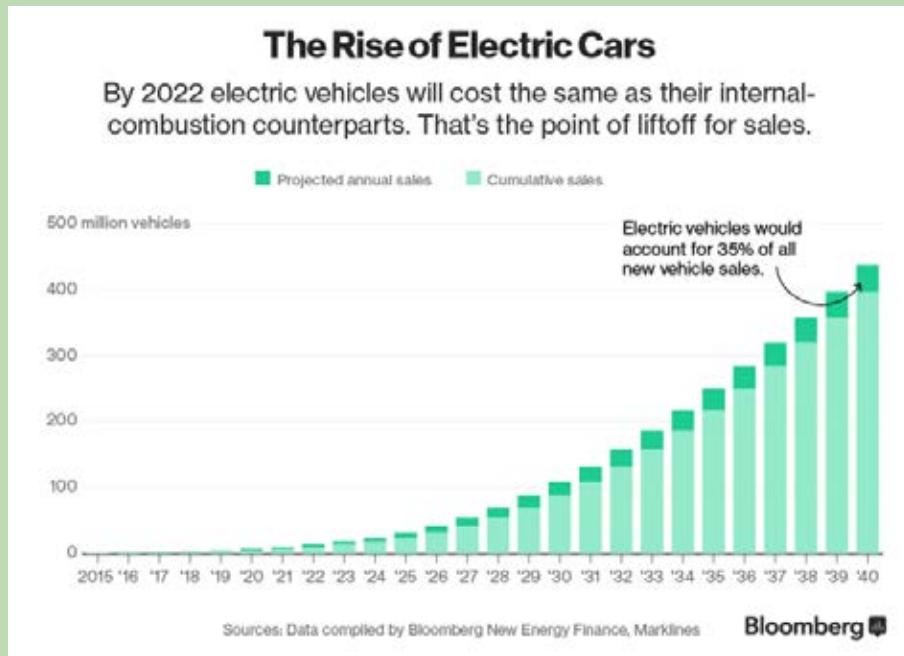
Painting the big picture

For Utility managers, planning can resemble a game of high-stakes blindfolded darts. They know which way they are faced and what the goal is. They have to produce and transport energy to ever-changing communities and industries. Access to the right data can tell them how hard to throw and at what angle of trajectory to get as close to the center of the target as possible.

For example, many Electric Utilities are now integrating historical weather data and projections into their Corporate Performance Management (CPM) systems. They are also tracking population and industrial growth statistics to help them predict future demand – which cities, regions and industries are growing and which are shrinking?

Similarly, they have to track technology development, as both a demand generator and a supply provider.

For example, the rapid proliferation of electric vehicles, autonomous or not, will stress supply. So too, will increased adoption of energy-intensive technologies such as blockchain and cryptocurrency, the hyperconnected Internet of Things, and other unidentified new energy-using innovations.



▲ Source: [Bloomberg](#)

At the same time, however, advances in alternative energy technology that lead to greater adoption may increase supply and/or reduce demand.

Even changes in the markets for traditional fossil fuels can dramatically affect a Utility's planning. Investments in coal-fired plants in the U.S. have dropped to next-to-nothing because natural gas prices have been low for years due to increased supply from shale sources.

Environmental pressures have also eroded the acceptance of coal-generated energy.

Even with the support of the current presidential administration for coal, Utilities must track, analyze and project the appetite for coal-power beyond two terms. The same is true of acceptance for nuclear power. Cleaner alternative sources – wind and solar – also apparently have environmental limitations that must be taken into account.



Painting the small picture

Of course, managing a Power Utility isn't all long-term planning and analysis. It's also day-to-day operations, meeting the needs of customers and fulfilling obligations to investors, lenders and ratepayers.

Utilities have to be extraordinarily nimble behemoths. While they are predicting supply and demand 20 years down the road, they also have to be looking to the end of the week, month and quarter, and consider the strain on the system that a heat wave or an ice storm could cause. How often and when is it hit with peak demand? How often and when does it experience failures? How do different products and pricing schemes affect demand?

One unexpected extreme weather event or large capital equipment purchase could throw a Utility into a cash-flow crunch that could have a domino effect on other budget requirements or financing covenants. Historically, the data Utilities require is available but from disparate systems and sources. It has to be collected, cleaned, connected and analyzed. Even a term as seemingly basic as "peak hours" means different things in different places.

The good news is that interactive and responsive Corporate Performance Management (CPM) systems are displacing unwieldy, error-prone, crash-vulnerable and inconsistent electronic spreadsheets that contain hundreds of thousands of lines.

Feeding lines of data into a single CPM system makes it easier for Utility managers to use more and better data, and more accurately anticipate needs a week or a decade from now.



Access to better data is enabling business managers to have a more timely understanding of the effect of various decisions on product line revenue and profit; to understand costs and manage them.

They are better able to review, analyze and adjust key performance indicators on the fly, based on energy prices, volumes, regulatory changes and other factors. They are running scenarios involving employment levels, and better tracking and managing their capital requirements.

Utility managers will still have to run a wide variety of scenarios when they plan for the future, whether next year or two decades from now.

But in this era of big data, with the right management tools, they will be closer to the bullseye and able to respond more nimbly to the real-life and market changes they must face.



About Prophix

Prophix develops innovative software that automates critical financial processes such as budgeting, planning, consolidation and reporting — improving a company's profitability and minimizing its risks. Thousands of forward-looking organizations in more than 90 countries use software from Prophix to gain increased visibility and insight into their business performance.

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