ENMAX Energy balances supply and demand with SAS® Analytics

When ENMAX Energy Corporation, the leading competitive electricity retailer in Alberta, Canada, finished the implementation of its RiskBench (based on SAS® Enterprise BI Server), it was pleased to see positive ripple effects transpiring one year later – including optimized decision making and forecasting, senior management confidence in the software and its information flow, and calls for more analytics.

Industry

Energy and Utilities

Business Issue

With customer demand varying by the minute and hourly, daily and monthly demand patterns subject to the weather and many other variables, ENMAX Energy wanted to optimize its approach to balancing supply and demand.

Solution

ENMAX Energy chose SAS® Business Analytics for its efficiency, speed, usability and capacity to analyze and use enormous amounts of data.

Benefits

Optimized decision making and forecasting, executive confidence in the ability to manage price and commodity risks.

ENMAX Energy is always looking for innovative ways to continue improving on its offerings to energy consumers, whether that's by bringing alternative energy generation technologies to the marketplace or adopting leading-edge systems to better serve its customers across Alberta. Opting to implement SAS Analytics is one step that is helping ENMAX Energy achieve its goal when it comes to balancing supply and demand.

"In addition to growing senior management demand for the reports we can produce with SAS Analytics, our biggest challenge now is that some of the original users have spread throughout our company and they want SAS analysis tools," says Davin Kivisto, Director of Forecasting and Portfolio Management for ENMAX Energy. "Our people want Outlook, Excel and SAS. It's evolving to more of a desktop item than a specialized program."

The newfound and expanding desire for more SAS analytical tools is the result of growing familiarity with SAS software's ability to support the company's energy trading, forecasting and analytical functions at its wholesale and retail organizations, Kivisto adds.

Taking a wider perspective, ENMAX Energy's adoption of analytics provides further evidence of the sea of change brought about by deregulation, because it demonstrates the increasing importance of the powerful analytical software needed to support the market transactions and risk management functions as companies tackle volatile energy markets and stiffer competition.

Challenges aplenty

Like all electricity retailers, ENMAX Energy faces the challenging daily task of balancing supply and demand. Customers' use of electricity varies by the minute, hour, day and month, and demand patterns are also subject to the weather and other variables.

In their unregulated environment, ENMAX Energy seeks to operate in a near equilibrium by implementing an integrated, active approach to managing price and commodity risks. The company strives to proactively monitor and protect itself against mismatches of demand to supply, using physical and financial instruments.

To accomplish these goals, the company requires its information technology systems to produce data that answers basic questions like: "What's our mismatch?" and "How do we replicate the multitude of demand, supply and market factors at hourly resolution?"

Answering these questions means that the company's IT systems need to deliver raw data to analysts in a timely manner to address the information needs of the operations and decision makers. This requires software that can handle large volumes of data coming from different places throughout the company, as well as from external sources.

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To address their needs, ENMAX Energy wanted enhanced software tools to meet expanding analysis, reporting and data management requirements. The software needed to facilitate better margin-at-risk analysis for the organization, provide the ability to factor the effects of planned and unplanned outages, market transactions, fuel price fluctuations and other variables, and provide the information needed to take strategic actions to mitigate unfavorable situations.

Risk analytics at work at ENMAX Energy

After an extensive review of software tools, ENMAX Energy chose SAS for its effectiveness, speed, usability and capacity to analyze enormous amounts of data. ENMAX Energy found SAS tools to be easily audited and edited, enabling transparency and efficiency across the organization's business units.

Kivisto says the implementation went smoothly and that executive-level support from Lonnie Enns, ENMAX Energy's Vice President of Commodities, was critical to the implementation success along with his confidence in the forecasting department's vision. Once live, the software started providing high-quality information and faster-performing decision tools. And, whenever ENMAX Energy had a question, SAS and RiskAdvisory representatives were available for technical solutions or to provide industry perspectives.

"In addition to the power of the software, we found that the consultants from SAS' subsidiary, RiskAdvisory, had the industry expertise and market experience to provide sound counsel," Kivisto explains. "We bounce ideas off them from time to time and they provide great perspectives. This dynamic helps instill confidence among management that our solutions are in line with industry standards and appropriate to our current challenges."

Training, ease of use and return on investment

According to Kivisto, the software was intuitive and easy to learn for new users within the company. While SAS has numerous training programs available for its customers, ENMAX Energy employees approached it as they do most programs, by wading in, plugging away and working through it.

"We have smart users, so the hands-on training approach worked for us. User uptake of the software has been good because the application has delivered solid results," he explains, adding that the program paid for itself in terms of improved decision making within the first full quarter of its implementation. "The Risk Management Committee also sees how valuable the Web reporting capability is for sharing and improving wider decision making. We bought the solution for its analytics and discovered a reporting function that's greatly valued."