

"One of the nice things about working in an electric utility is being surrounded by engineers. In this environment, no one is going to question the importance of analytics in helping to design strategies."

Jared Lawrence,
Vice President, Revenue Services
Duke Energy Corporation

The Analytics Mandate: Tapping into the energy industry's rich data resources

With global demand predicted to grow by 60 percent during the next 20 years, the energy industry must innovate with processes that are profitable and sustainable. Technology, competition, consumer attitudes and regulations add to the complexity of the change that must take place.

The solution is further complicated by:

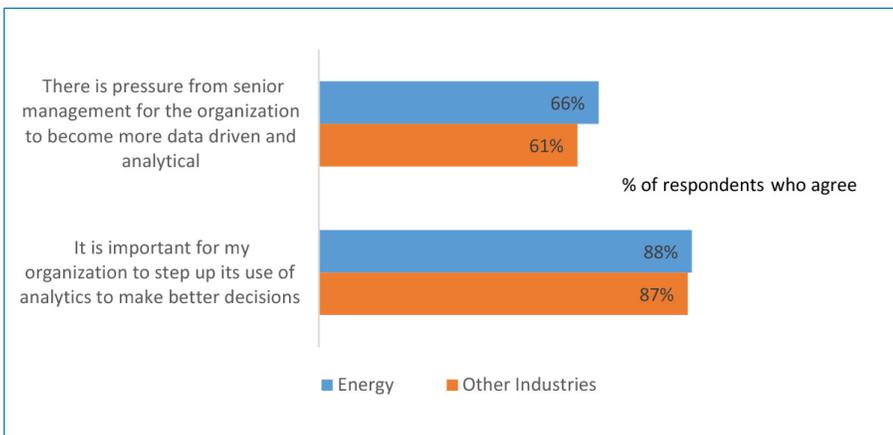
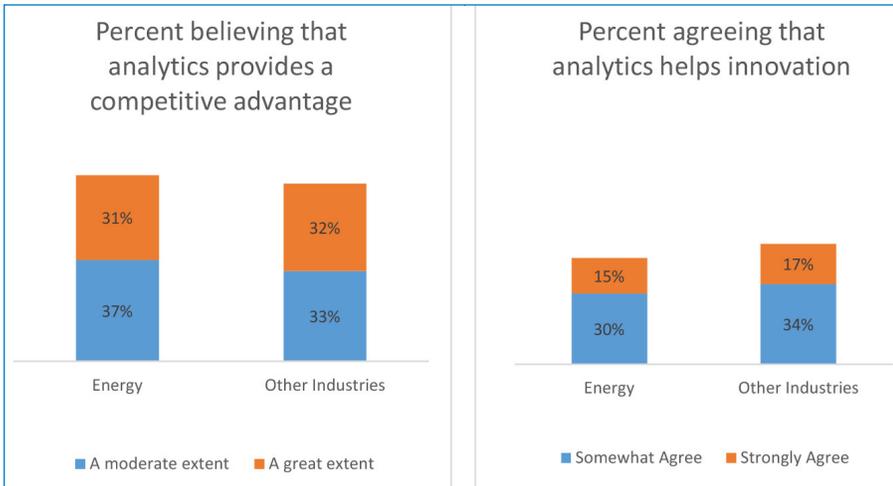
- Increased market volatility.
- Escalating costs.
- Increasing demand for renewable energy.

Energy companies must also influence change in consumption patterns by shifting consumer behavior. To address these issues, they must find ways to use their data for innovation and competitive advantage. This requires new ways of thinking and a willingness to adopt new business models.

Innovation is the way

Since 2007 and the publication of Tom Davenport's book *Competing on Analytics*, the adoption and use of analytics has burgeoned across all industries as more organizations turn to their data to gain an edge. In fact, research from MIT Sloan Management Review and SAS indicates that two-thirds of businesses believe that analytics creates a competitive advantage in their organizations, and 52 percent say that analytics has helped their organizations to innovate.

The energy industry, in particular, is reaping benefits from analytics, according to the research. The survey (based on responses from 111 energy companies and more than 1,900 companies in other industries) shows that 68 percent of the respondents in the energy sector believe that analytics provides them with a competitive advantage, while 45 percent agree that analytics helps their organization innovate. For an industry steeped in math, the foray into analytics is a natural progression and an opportunity to lead the way for all other industry sectors. And the escalating amounts of data available from new technology, such as smart meters, smart grids and the Internet of Things, provide a trove of information to address critical energy industry issues.



“It’s important for us to continue to invest in analytics capabilities because they complement our ability to anticipate and meet our customers’ changing needs, to maintain high customer satisfaction. Higher customer satisfaction usually means happy regulators and happy shareholders as well.”

Jared Lawrence

Source: MIT/Sloan Management Review, Data and Analytics Survey, 2014.

Increasing urgency

Like other industries, businesses in the energy sector are feeling pressed to take more advantage of these vast stores of data. More than six in 10 are feeling pressured by senior management to be more data driven. And a vast majority - nearly nine in 10 respondents - agree that it’s important for their organizations to step up their use of analytics.

Cultivating the capabilities

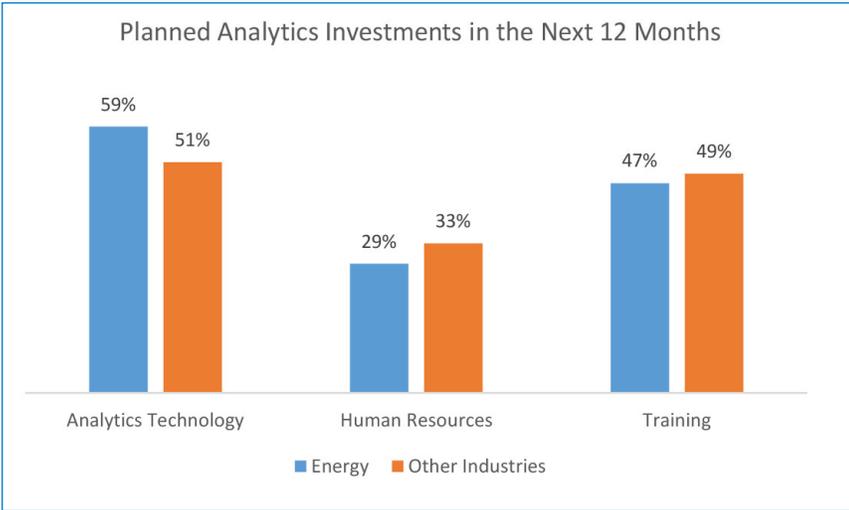
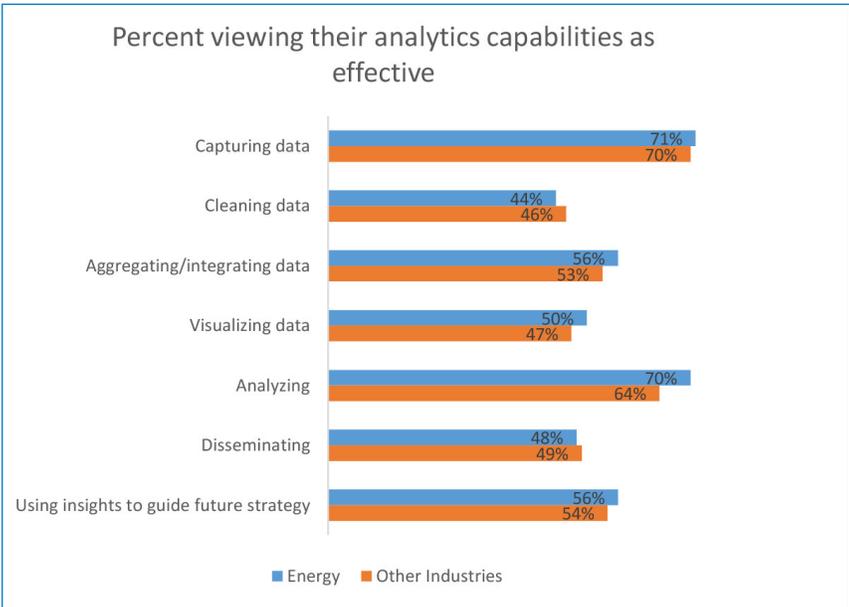
The proliferation of data in the past several years has been paralleled by advances in storage, making it very inexpensive to store information. Yet many companies still struggle with how to manage it and make good use of it. Seven in 10 survey respondents rate their data capture capabilities as effective, but downstream, capabilities wane. Most energy respondents (70 percent) report effective data

analysis, but like those in other industries, they fall short in data management and developing insights across the organization and incorporating analytics in their overall business strategy.

Energy companies are focusing their analytics investments primarily on technology (59 percent) and to a lesser extent on training (47 percent). Hiring analytical talent is the lowest priority (29 percent).

The path forward

While energy companies face unique industry challenges, they are also poised for great opportunity. Most have the data-focused culture necessary to make analytics work. They should capitalize on their data-driven culture and harness the information they have. They need to prepare themselves for the continuing data deluge and develop stronger capabilities to drive strategy with analytical insight.



The Analytics Mandate report

To read more about the transformative power of data and the characteristics of companies using analytics for innovation and competitive advantage, read the full MIT Sloan Management Review report, *The Analytics Mandate*. sas.com/mandateEnergy

How SAS® can help

From oil exploration to power systems, many energy companies have a common appreciation of data as the new corporate asset. SAS enables energy companies across all segments to align big data analytics with the emerging corporate strategies of the modern energy company. In the digital oilfield and in the smart grid, energy companies are moving analytics closer to the data in order to improve timely decision making. Whether it's sharpening customer behavior analytics or reducing operational risks, SAS delivers proven solutions based on quality data and analytics you can trust. Learn more at sas.com/oilgas or sas.com/utilities.

