Top 10 Big Data Solution Providers 2017

The impending need for energy systems to become more intelligent and automated entails usage of data sources for capturing, crunching and creating meaning to information streaming from various sources like power usage, plant performances and recycle metrics. The adopted process is much like the transformation that the Internet went through – power companies are beginning to incorporate technologies like blockchain, Big Data and remote data distribution.

A recent research conducted indicates that energy organizations that use Big Data as an integral technology in their processes are 23 times more likely to prevail over those that are not. Considering this wide margin, it shouldn't come as a surprise that the number of emerging startups focused on delivering big data solutions for smart metering, asset and workforce management, and grid operations are on the rise; exponentially. Big data has two major promises for the energy sector – automation of processes and predictive analytics.

With the Oil and gas sector, the primary source of energy in the world today, generating terabytes of data on a weekly basis, energy companies have already been impelled to revolutionize their systems and process to incorporate big data solutions from a variety of vendors.

In the last few months, a distinguished panel comprising of CEOs, CIOs and analysts, along with Energy CIO Insight's editorial board reviewed and shortlisted the top companies, at the forefront of tackling big data challenges for the energy sector.

In this edition of Energy CIO Insights, we present to you "Top 10 Big Data Solution Providers 2017," featuring the companies that are delivering promising big data solutions to the energy sector.

Building Dynamics - Ameresco's Big Energy Data Solution

recognized by CIO INSIGHTS *magazine as*

Top 10
BIG DATA
SOLUTION PROVIDERS -2017

An annual listing of 10 companies that are at the forefront of providing Big Data solutions for the energy sector and impacting the marketplace

Company:
Ameresco [NYSE: AMRC]

Description:
Building Dynamics is a Big Energy Data solution from Ameresco, and provides comprehensive energy management solutions for today's energy requirements

Key Person:
Andreas Savvides, Ph.D., VP of Technology & Software

Website:
ameresco.com

Building Dynamics-Ameresco's Big Energy Data Solution

Advanced Energy Management System

In today's digital age, it's surprising to find that energy data across a large number of buildings is generally not available in a consistent format; one that can easily be communicated across the different tiers of an organization. In many cases, energy data integration is a significant challenge, particularly for those organizations managing a multitude of buildings with data from different utilities, various meters, and across multiple accounts. Without some form of automation, it is a monumental task for a manager to compile data in a comprehensive format.

Ameresco's Building Dynamics is a big data software solution that specializes in collecting customer energy data from a wide variety of sources, such as accounting systems, utility systems, meters, and sensors. With its technology-enabled analytics capability, it provides visibility into the customer's energy usage trends, and uncovers critical insights for making informed energy choices. "Many of our customers have lots of buildings, and they typically don't have a solution in place for understanding the overall picture and using it to drive their strategic energy and sustainability goals," points out Andreas Savvides, Ph.D., Vice President of Technology and Software and General Manager of the Building Dynamics team at Ameresco.
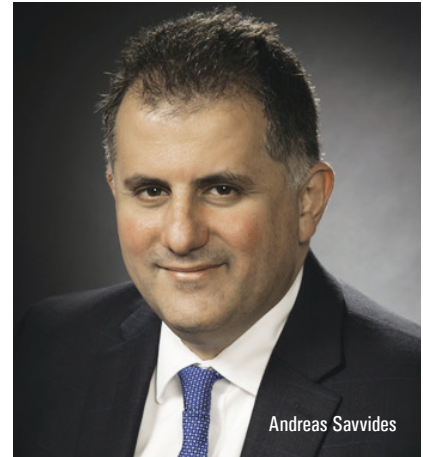
The Building Dynamics energy analytics offering is structured in two tiers. The first, called Monitoring and Reporting, is where data is collected from the entire building portfolio, analyzed and presented to the customer in an easy-to-understand form on a web portal or as a report. This helps the customer to understand the state of their portfolio, and allows them to identify opportunities to optimize their energy usage and costs.

The second tier addresses Building Automation Systems (BAS) inside buildings. It continuously reads thousands of data points of information from the BAS and analyzes them to find faults. It helps to identify any part of the system that is broken or misconfigured, and finds opportunities for upgrades. In many instances, there are low-cost or no-cost measures that can save the customer a lot of money, such as replacing all lighting with LEDs.

> **We compile and analyze customer data, help the customer understand it, and incorporate their energy strategy, and ultimately manage their day-to-day consumption more effectively**

In product manufacturing, for a example, energy is a primary cost. To be price competitive, industrial customers need to understand the breakdown of energy consumed between the different machines in their facility, how much is spent by department and what their options are to become more efficient. Building Dynamics addresses these, and can provide usage information for each product the customer manufactures. In addition, Building Dynamics

Andreas Savvides

supports creating a comprehensive energy strategy.

In addition to its capabilities, what sets Building Dynamics apart from other big data providers is that it is integrated within the larger framework of Ameresco, a leading comprehensive energy efficiency and renewable energy company throughout North America and the United Kingdom. This provides access to engineering professionals, who can help customers develop not only their energy data solution but also provide end-to-end project support for innovative, energy efficient solutions. Most importantly, customer service is central to Ameresco. "I personally meet with customers to learn about their goals and pain points," says Savvides. "We partner with our customers. Their inputs and needs influence the design of the product."

Savvides believes the connected energy systems is the future. The information provided through, Building Dynamics creates high value for smart cities, healthcare, and universities, and customers with large portfolios of buildings. **EC**