

Getting Smart with Energy Intelligence

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A variety of industry forces are driving the need among industrial companies for a comprehensive energy management system, but it's profitability that's ultimately motivating much of this activity. Organizations are realizing that sustainability initiatives alone can't drive profitability. They're finding that energy management efforts must be combined with efficient operations to effectively drive long-term financial growth.

However, two key challenges — lack of visibility into key performance indicators (KPIs) and a legacy manufacturing IT environment — are preventing many companies from achieving their financial and operational goals.

Investing in Energy Intelligence software, which includes data collection, visualization software and analytical tools, is one way in which organizations are beginning to address their challenges. In many cases, this software supplements existing and planned manufacturing operations management (MOM) software and automation investments.

However, these technologies traditionally neglect to collect and manage energy data in context of operations, so many companies are beginning to deploy Energy Intelligence strategies to gain insight into the role of energy within their operations — from procurement through production.

In addition to operational insights, the data generated by this technology is being used to provide improved clarity for buy/produce decisions and to help justify energy-efficiency projects. However, energy data alone can't drive success. The information generated by this technology must be paired with the right energy-management processes and organizational leadership capabilities. By uniting all these elements, firms can begin to develop a more holistic and effective strategy that turns energy data into actionable operational insights.

Overcome Obstacles

Macroeconomic trends such as global population growth and GDP expansion certainly are driving the need for cleaner, more cost-effective energy sources. These trends are prompting individual companies to target energy projects aimed at reducing consumption and improving sustainability.

In addition, although financial growth is a top business objective for executives in the coming year, according to a survey from LNS research, companies aren't necessarily tying sustainability and energy-management programs to this goal directly.

Instead, sustainability and energy-management programs more often are tied to profitability improvements and energy usage reductions.

Top sustainability objectives for 2013 include reducing the total cost of operations and reducing energy consumption. The top goal for energy management also is reducing the total cost of operations. Executives also want to align their energy programs and operations with corporate sustainability objectives.

Companies face a variety of challenges in reaching these objectives, but the top issues cited by executives both were related to technology:

Disparate systems and data sources. Purpose-built applications often are implemented piecemeal by individual divisions or business units, so systems lack cohesion and strategic purpose.

Energy metrics not measured effectively. The proliferation of disparate systems makes it difficult to share data across the enterprise and make measurable improvements.

Connecting People, Processes and Technology

Energy Intelligence software is making it easier for companies to achieve their sustainability and energy-management objectives by delivering data across the

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enterprise. What's more, this information is being delivered to role-based decision-makers in real time with analytics.

Energy Intelligence software brings together energy and production data so it's possible to view energy consumption by process or product, and even allocate energy costs to the bill of materials.

However, technology investment alone isn't enough. Companies must align and optimize key resources — people, processes and technology. Instituting a few best practices in these areas can help ensure the technology investment reaches its full potential:

- **Seek support from senior leadership.** This backing is imperative for success because it often acts as a catalyst for creating an energy-focused culture and an effective Energy Intelligence software implementation.
- **Take advantage of existing energy-management programs.** These programs, such as ENERGY STAR, ISO 50001 and Superior Energy Performance, can serve as a helpful resource for understanding industry best practices and developing methodologies.
- **Take a next-generation approach to manufacturing software.** Use a common information management system for energy data can help alleviate past problems related to measuring energy data and transforming it into operational insights.
- **Use role-based KPIs.** Energy Intelligence software standardizes data sources in a way that allows everyone from executives and decision-makers to the shop floor to identify specific areas for improvement and measure progress toward goals.

While more environmentally-conscious decisions will be expected by stakeholders over time, the operational and financial benefits of Energy Intelligence software warrant enough evidence to take action now.

For more information on energy management best practices, visit <http://discover.rockwellautomation.com/Energy> [1] and download a copy of the Top Strategies for Energy Intelligence eBook from LNS Research. In this eBook, from which much of this article was excerpted, LNS Research helps provide a roadmap for industrial organizations aiming to turn big data into operational insights with Energy Intelligence software.

Rockwell Automation Sustainability
Solutions www.rockwellautomation.com/go/tjsustain [2].

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