3 STEPS TO MANAGE AND MONETIZE YOUR ENERGY DATA

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Companies across industries are actively seeking ways to reduce energy costs and monetize their assets. Driven in part by a growing demand to reduce carbon emissions, some organizations are going a step further to leverage precise energy usage and power generation data to realize cost savings, convert latent assets into profitable ventures, and make progressive strides toward their sustainability objectives.

To achieve these goals, businesses should utilize dependable energy data — the key to unlocking improved operational efficiencies, lower costs and emissions, and progress on energy-management objectives. But many companies struggle to create a comprehensive view of their energy data, preventing them from fully realizing the potential of high-quality, aggregated data.

"There's a huge gap in the market about how you get good data in an economic way," says Michael Holbert, director of business management at NextEra Analytics, a provider of renewable energy consulting services and the NextEra 360™ comprehensive energy-management software. "Data needs to come first, but leveraging the right analytics tools can really help you save money and monetize those assets."

If leveraged effectively, energy usage data can reveal valuable insights and help organizations:

- Manage energy costs and consumption
- Mitigate risk
- Maximize the return on energy investments through anomaly detection, predictive maintenance, local utility incentives, and energy dispatch strategies.

Having a deeper understanding of energy consumption can empower businesses across industries. So, how can businesses harness the power of their energy data?

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Director of Business Management
NextEra Analytics

THE BUSINESS BENEFITS OF SUPERIOR ENERGY DATA MANAGEMENT

Companies that can visualize the impacts of their current energy data, realize the potential returns of data management, and maximize the use of that data stand to reap operational and strategic benefits.

Unlock cost savings by improving energy performance

Energy costs have risen rapidly amid inflationary pressures. Comprehensive analysis of energy data can help companies find ways to cut costs. "Companies control their earnings in two ways: increasing their revenue or decreasing their costs," NextEra Analytics Director of Business Management Holbert explains. "Implementing energy-efficiency measures can reduce energy costs, which are and will continue to be a driver of company operational expenses."

Data could indicate opportunities to enhance existing infrastructure. One NextEra 360 customer introduced smart heating, ventilation, and air conditioning (HVAC) set points to improve energy efficiency. Within the initial 16 weeks of operation, the customer reduced energy use by an average of 12-15% per site. The customer also installed real-time electric monitoring at each location to gain a more granular understanding of each facility's usage patterns.

Companies can also gain insight into areas of under-performance. If not managed, energy infrastructure can operate below its maximum capacity, which means there is room for operators to increase their physical output before reaching peak performance. By monitoring production data and incorporating information on weather, location, and maintenance, companies can gain a comprehensive understanding of their assets' current performance. This could be crucial for maximizing profitability.

Enable informed, strategic energy decisions

Reliable data is critical when making investments in energy infrastructure, especially as more companies invest in renewable generation. "A lot of companies are dipping their toes into the generation and storage market. It is the first time they have asked their board leadership for a large amount of capital investment in this area," Holbert says. He emphasizes that data can help companies create strategic short- and long-term energy management strategies, unlock market trading opportunities, and improve overall investment returns.

> "THE SURER YOU CAN BE ABOUT SOMETHING, THE BETTER DECISIONS YOU CAN MAKE, NOT ONLY IN THE NEAR TERM, BUT HOW DOES THIS FACTOR INTO YOUR ENERGY MANAGEMENT PLAYBOOK IN 15 YEARS?"
>
> *Michael Holbert*
> Director of Business Management
> NextEra Analytics

Companies considering investing in assets such as battery storage need to understand their current operational usage, local utility energy incentives, and whether their battery can be an investment in their local energy market. NextEra 360 helps companies enhance their assets by combining that data with digital energy management tools to implement energy trading strategies that result in cost savings.

The software can inform an optimal trading strategy and, combined with digital energy management tools, can become part of a future automated energy trading strategy. NextEra Energy has found that automating trading using day-ahead and real-time algorithmic trading strategies can realize 20-30% incremental value over manual trading. Combining quality data with optimization tools can reduce costs and turn the battery into a source of revenue.

Make progress on mandates to reduce emissions

As more governments — from local governments to the European Union — mandate emissions reductions, more companies are setting decarbonization targets and tracking and reporting their progress. Energy data management underpins all of these goals. Sustainability leaders can get a comprehensive view of their energy usage and generation to set targets and demonstrate the return on investment of decarbonization strategies. For example, implementing hybrid solar and battery storage can help companies save millions of dollars on energy costs. Having the right data is essential to making the business case for sustainability targets.

WHY COLLECTING AND AGGREGATING ENERGY DATA IS A CHALLENGE

In today's complex energy ecosystem — with multiple sites and asset types, disparate data sources and utility bills, local regulations, tariffs, and variations in market prices — generating a comprehensive view of energy and emissions data is no easy feat.

Part of the challenge is the varying levels of data technology. "Some of these assets we're trying to collect data from have been around 20, 30 years," Holbert says, citing old HVAC systems in manufacturing plants as an example. "We're trying to connect with things that have been around since the early '90s, and technology has changed."

Communication barriers make it even more difficult to create an integrated ecosystem of data. "The ability for everything to play nicely together, to have an ecosystem of all the data, that can be a huge problem for companies," Holbert says. It's a problem with real consequences. A BCG survey revealed that 91% of companies surveyed cannot measure the full scope of their greenhouse gas emissions. The average emissions-monitoring error rating was between 30% and 40%.

Cost is another major concern for companies. All too often, projects to monitor progress against energy and decarbonization goals result in expensive, time-consuming, and high-budget IT implementations. McKinsey found that large IT projects run 45% over budget, on average, take 7% longer than planned, and deliver 56% less value than anticipated.

Adopting off-the-shelf digital solutions instead of investing in proprietary solutions will not always yield time and cost savings. Poor IT integration can be just as big a problem as cost overruns. Research shows 88% of IT leaders experience hurdles during their implementation journeys.

In both cases, companies face huge time and financial costs. While reducing the risk of budget overruns in the near term is an important goal, organizations should consider that improved energy data management is ultimately an investment for long-term gains.

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THREE STEPS TO MOBILIZING DATA FOR ENERGY MANAGEMENT

To define the scope of their energy-management efforts, Holbert recommends organizations start with their end goal and work backward. He also emphasizes that an energy management journey is just that — a journey. NextEra Analytics breaks it down into three steps:

STEP 1: Make better use of data

The first step is enabling system integration using tested hardware and software across the full ecosystem of assets and sites. This can help companies unlock insights into:

- Energy consumption
- Emissions impact
- Energy usage patterns by process or asset
- Aggregated energy bills
- Opportunities to change tariffs for better savings opportunities

It's crucial to find the right solution at this stage. For an organization with little to no experience with data, delving into it without proper assistance can be intimidating. Investing in a trusted solution early on can help organizations align their data efforts with their specific goals.

Holbert recommends considering several factors when evaluating solutions, including how the vendor will get the data and what they'll do with it. Regarding data collection, security is a big concern. However, getting the data is only the first step. A vendor should be able to turn that data into actionable insights that will lead to cost savings and revenue opportunities. And they should have a pricing and investment plan based on those potential financial benefits, Holbert says.

Whether developing an in-house solution or evaluating a vendor, "You should always have a pilot period," Holbert says. "You don't know what you don't know. In the early stages, you may not know what to expect from a provider."

From there, start getting comfortable reading the data. Internalize it and understand what it's showing and learn what data doesn't matter. Holbert gives the example of customers who simply need to know if air leaks in their compressors are causing higher energy spending. The key is to identify the most efficient way to get the data needed for that specific issue.

Once you feel comfortable reading and understanding the data and separating useful information from noise, you can progress to using that data for strategic decision making.

Step 2: Enhance the value of your renewable energy generation

The next step involves using energy data to maximize the returns on your investment. In essence, this means getting the most out of your current infrastructure and assets.

Holbert emphasizes the importance of comparing performance data to a baseline to identify opportunities and areas of concern. This could involve running simulations to evaluate investment and generation opportunities or using digital twins to understand how an asset's generation or storage capabilities compare to its expected performance. This makes identifying the underlying cause of performance issues, such as weather, poor wiring, or inverter failures, easier.

Step 3: Treat energy as an asset that can drive profitability

The final step in the energy data management journey involves monetizing energy assets to accelerate their return on investment. This presents a significant opportunity; the market size of renewable energy trading alone is expected to reach $10 billion by 2030.

$10B

Estimated size of the renewable energy trading market by 2030

However, more than half of CEOs can't clearly identify the ROI or other economic benefits of their decarbonization and sustainability initiatives. This could result in significant missed opportunities for financial gain.

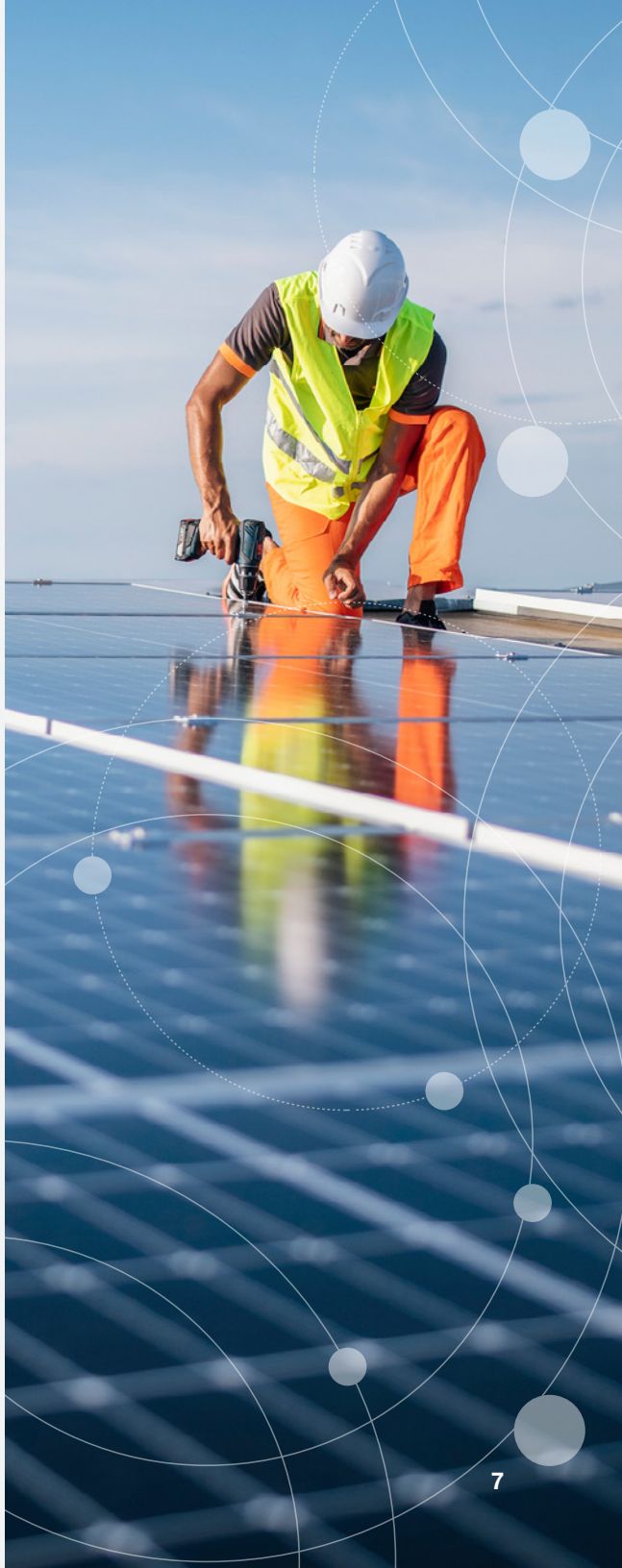
Companies can use software to optimize energy dispatch and trading strategies, maximizing the value of energy assets. Utilizing smart dispatch models will capture arbitrage and incremental value. Additionally, reducing consumption, minimizing peaks, and participating in energy response programs can help cut costs and enhance profitability.

Energy generation and storage infrastructure aren't the only opportunities for monetization. According to Holbert, utilities are implementing numerous tariff programs to support the grid, accommodate increasing populations, and safeguard their investments by controlling costs. By treating their buildings as energy assets, companies have the potential to save a significant amount of money.

Holbert believes many organizations have the untapped potential to monetize energy assets. With comprehensive energy data management, they can identify those opportunities and convert them into revenue streams.

Energy is vital for businesses, but it holds more value than many realize. With the right solutions and data-driven decision making, infrastructure investments will not only bring returns but will also create new revenue opportunities.

NextEra 360 comprehensive energy management software makes it easy to visualize and monetize your energy assets. Let us show you how. Schedule a demo today.



About NextEra 360

NextEra Analytics, Inc. (NEA), a subsidiary of NextEra Energy Resources, was built on 20+ years of experience in energy optimization, data science, forecasting, and analytics. The company developed NextEra 360™, a comprehensive energy management software package designed to increase operational efficiency, reduce costs, and accelerate decarbonization no matter where you are in your clean energy journey. Swift and agile, NextEra 360 can be tailored to your site-specific operations and business objectives.

NextEra Energy Resources, LLC, together with its affiliated entities, is the world's largest generator of renewable energy from the wind and sun and a world leader in battery storage. NextEra Energy Resources offers a wide range of clean energy solutions to help businesses and customers across the country meet their emissions reduction goals.

For more information, visit www.NextEra360.com.

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