

TURN ENERGY DATA INTO ACTION.™

NEXtera
360™



Reduction
of unexpected
19.2 MWh
energy consumption¹

Near real-time visibility
into the utility usage
of assets allows for
quick action to address
abnormal process
performance.

“Thanks to NextEra 360™, we
were able to identify possible
equipment leaks and operational
procedure improvements related
to our compressed air systems.”

– Manufacturing Leader

Manufacturer Recognizes Energy Efficiency Improvements in Electricity Monitoring

One of the world's largest auto parts manufacturing companies was looking to meet or exceed goals related to energy savings, industry 4.0 and emissions reduction.

The company, which stamps and cuts sheet metal to create frame parts for major automobile brands, wanted to leverage a solutions provider that could go beyond the corporate goals and reporting requirements to deliver the following benefits for their factory:

1

Additional
Operational
Efficiency

2

Energy
Savings

3

Long-term
Emission Reduction
Projects

Challenge

To accomplish its goals, the parts manufacturer needed considerably more visibility into its energy consumption than could be provided by monthly utility bills. It needed to capture “near real-time” asset level data from production floor equipment, particularly from its five 300-horsepower air compressors. It also needed to automate its reporting process to leadership.

While some of the factory's machinery had built-in sensors or monitoring capabilities, that data was not being captured. In other cases, equipment either didn't have monitoring features or existing sensors were not functional. While sensors could be added or replaced, ultimately the larger issue was that the company had no way to collect, analyze and leverage sensor data. To successfully implement industry 4.0 smart factory initiatives, the parts manufacturer needed an end-to-end energy management solution that could provide visibility around full site and asset specific energy use.

¹. From projected baseline using NextEra 360 software



Solution

NextEra 360™ established “full facility” utility monitoring for the client, as well as monitoring identified top power users across the facility and production equipment, enabling data to be analyzed and presented in a meaningful way via the customer portal.

The client leveraged the NextEra 360 Connect data capture and turnkey energy management solution to increase operational efficiency, reduce costs and accelerate decarbonization. NextEra 360 provides flexible solutions, including customizable hardware, that can be easily integrated with a wide range of energy assets, smart meters, and building management systems to unlock insights into energy consumption, emissions impacts, and savings opportunities.

The first step in the NextEra 360 integration was to collect and analyze existing data feeds and add sensors to equipment where necessary to establish facility and asset energy consumption baselines. Then, NextEra 360’s proprietary algorithms consolidated data from across the site, providing near real-time full facility electrical load, water, natural gas, and compressed air monitoring, as well as electrical submetering capabilities for top energy users including its compressed air system. Data was displayed in a customizable dashboard for the client.

Result

With NextEra 360 in place and energy consumption baselines established, the parts manufacturer was able to quickly identify unexpectedly high energy consumption from the air compressor system during a multi-day factory shutdown. In fact, energy consumption remained at production levels throughout the shutdown, consuming approximately 19.2 MWh of electricity. An investigation revealed an air leak in the system, giving the customer an opportunity to improve energy use. It also prompted management to institute new operational procedures to ensure the compressors aren’t running when they’re not needed. By establishing a baseline and then analyzing how energy consumption did, or in this case did not change based on factory operations, NextEra 360 helped the client identify an issue it didn’t know existed, saving the facility money and reducing energy waste.



About Us

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 cost, 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 NextEra360.com.

