

Energy & Utilities

Enabling **more sustainable** manufacturing with AI

Leading energy technology firm

To grow its business in a more sustainable way, this leading energy technology firm uses AI-powered insights from Lenovo ESG Navigator to monitor and optimize energy consumption at its main technology campus.

Lenovo



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Who is this energy technology firm?

Based in China, this energy technology firm is pioneering the development, manufacturing, distribution, and servicing of cutting-edge power-supply equipment. Committed to providing full-lifecycle clean-energy solutions, the firm serves domestic and international customers.

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The Challenge

Growing rapidly, this energy technology firm is adding many new production lines to its primary manufacturing facility. The new lines will enable the firm to deliver clean-energy solutions to many more companies— but the increased manufacturing capacity threatened to drive a significant increase in the firm’s own energy consumption.

A spokesperson for the energy technology firm says: “Naturally, we want to ensure that our own operations are as energy efficient as possible. Each month, our main technology campus consumes more than RMB 71 million (USD 10 million) worth of energy. With our planned expansion set to add to that total, we wanted a better way to track, analyze, and optimize our energy consumption.”



“We looked for a vendor that could provide an energy management system to deliver actionable insights into energy consumption across our entire technology campus. With so many assets in use across our manufacturing estate, we knew it wouldn’t be a simple task.”

Spokesperson

Leading energy technology firm

Finding a partner committed to sustainability

Working with experts from Lenovo, the firm deployed [Lenovo ESG Navigator](#): an advanced, cloud-based platform that empowers enterprises to monitor environmental, social, and governance (ESG) data across their manufacturing sites in near-real time.


“When we saw how Lenovo ESG Navigator provides instant insights into carbon emissions and energy consumption, we realized we’d found the solution we were looking for,” says the spokesperson. “From a single, easy-to-use dashboard, we can see our overall energy use and drill down into individual manufacturing assets. Crucially, we can harness that data to save power.”

Software

Lenovo ESG Navigator

Services

Lenovo Sustainability Consulting



The firm worked with Lenovo to retrofit smart IoT devices at the terminal ends of its production lines. With Lenovo ESG Navigator, the firm can capture data points from these terminals and benefits from AI-powered functionalities such as feature analytics, mechanism perception, load forecasting, and real-time optimization. This enables automatic remote control of compressed air, air conditioning, wind cabinets, and exhaust systems within the industrial park.

The firm also collects power supply circuit data from industrial park substation rooms, workshops, and production line power distribution cabinets. The firm uses Lenovo ESG Navigator to integrate and analyze this data, giving it insights into how to optimize energy use to reduce consumption.

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“Today, we are using AI-powered control systems to automatically optimize energy consumption across our technology campus—from our manufacturing assets to our heating, ventilation, and air conditioning systems. By switching off systems or placing them in low-power modes when they are not needed, we can drive a major reduction in our energy use.”

Spokesperson

Leading energy technology firm

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Results

By retrofitting its production lines and AI-powered optimization based on insights from Lenovo ESG Navigator, the firm has reduced energy consumption by 10%—resulting in a monthly saving of RMB 167,000 (USD 23,500) in electricity costs. The firm expects to recoup its investment in the Lenovo ESG Navigator solution in three years.

With Lenovo ESG Navigator at the heart of its approach to energy management, addressing energy supply-demand matching, energy saving control, and energy consumption practices, the firm is on track to achieve a significant reduction in energy consumption and carbon emissions—even as it expands its manufacturing operations.

“Thanks to our partnership with Lenovo, we are laying the foundations for ultra-efficient and highly sustainable operations,” confirms the spokesperson. “Going forward, we plan to build on our data insights and AI automation capabilities from Lenovo to further optimize our energy use.”



Delivers near-real-time insights into energy use



10% reduction in annual energy consumption



RMB 167,000 (USD 23,500) monthly saving in electricity costs

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“We are at the forefront of building next-generation clean energy solutions. With Lenovo, we can ensure that our own manufacturing operations are more energy efficient than ever.”

Spokesperson

Leading energy technology firm

Why **Lenovo**?

The energy technology firm was impressed with Lenovo's own journey towards sustainability. A visit to Lenovo's headquarters to see the results of its recent energy-saving renovation project convinced the firm that it had selected the perfect partner.

"Lenovo is committed to [achieving Net-Zero emissions by 2050](#), and the firm is already using Lenovo ESG Navigator to help monitor its carbon emissions," says the spokesperson. "The fact that Lenovo is already using Lenovo ESG Navigator to support its own sustainability goals showed us that the solution was the right fit for our needs."



How can manufacturers boost sustainability?

With Lenovo ESG Navigator, this leading energy technology firm is automatically optimizing energy consumption in near-real time.

[Explore Lenovo ESG Solutions](#)