

ENVISION FUELS SMART ENERGY EXPANSION, STRENGTHENED BY JABIL'S GLOBAL MANUFACTURING & SUPPLY CHAIN EXPERTISE



"We believe that energy can be beautiful, which is why we're committed to creating design-driven products that improve the way people interact with energy and nature."

Lei Zhang, Founder and CEO, Envision Group

Case Study



Company: Envision Group

Industry: Energy Technologies

Country: Shanghai, China

Employees: 700+

Websites: www.envision-group.com

CHALLENGES

- Stringent focus on process engineering and quality systems needed to develop nnovative smart energy solutions.
- Accelerated go-to-market strategy for India necessitated fast ramp and localization.
- Close collaboration with manufacturing partner required for global footprint expansion.

SOLUTION

- Jabil's proven wind energy expertise in China gave Envision confidence to expand into emerging markets.
- Jabil developed a manufacturing facility in India dedicated to Envision.
- Jabil leveraged local supply chain resources to reduce BOM.

BENEFITS

- Envision produced 50 wind turbines in three months after Jabil opened its new facility in India; 300 turbines can be produced annually in India.
- Localizing manufacturing and supply chain in India enabled Envision to drive aggressive growth while reducing costs by up to 30 percent.
- Expedited global footprint expansion has solidified Envision's market leadership.

"In the wind business, it's all about quality, reliability and cost efficiency."

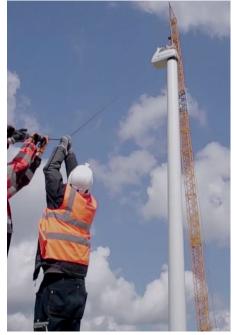
Kane Xu, Global VP, Envision, India

Envision is a smart energy solutions company with a clear mission: Create a world where everyone has access to clean, secure and affordable energy. Founded in 2007, the digital energy pioneer is recognized as an industry leader in wind turbine technology. Envision's fleet of smart turbines features exclusive technology that includes sensor-enabled controls to optimize performance and energy aeneration in harmony with the environment.

"We are creating wind turbines with a brain," explains Lei Zhang, Founder and CEO of Envision Group. "Using hundreds of sensors, advanced control algorithms and AI predictions, we are building wind turbines that produce more energy, catch more wind and also are more efficient and reliable, which reduces maintenance costs."

Headquartered in Shanghai, Envision is growing rapidly with an ever-expanding global footprint across Asia and Europe as well as North and South America. Ranked the second-largest renewable energy company in China and fifth in the world, Envision's software-defined turbine approach surpasses the technological limitations of traditional wind turbines while boosting wind power generation efficiency by 15 percent.





Empowering Wind Turbine Innovations

Envision's industry-leading technology lets wind turbines accurately perceive their own status and environmental conditions to ensure maximum power generation and longer service life. As a result, wind farm operators benefit from greater visibility and control over environmental and extraneous factors that can impact turbine performance.

In bridging the gap between digital and physical energy systems, Envision is driving a global transition to smart, clean and abundant energy. "In the past, people would say that energy is pollution, smog and expensive," says Zhang. "We believe that energy can be beautiful, which is why we're committed to creating design-driven products that improve the way people interact with energy and nature."

To usher in this new era of beautiful energy, Envision sought a world-class manufacturing and supply chain partner to support the company's go-to-market strategy at unprecedented speed and scale. Jabil, a global manufacturing solutions provider with more than 15 years of experience manufacturing high-level assembly components for wind turbines, was well suited for the task.

Jabil-manufactured turbines represent significant wind energy capacity while strong supply chain experience helps



customers reduce operating costs. With experience in key geographies, including Brazil, China, India, Vietnam and Mexico, Jabil is uniquely positioned to help customers mitigate risks when entering emerging markets. For Envision, Jabil offered the opportunity to empower innovations and aggressive geographic expansion while adhering to rigorous quality requirements.

"In the wind business, it's all about quality, reliability and cost efficiency," says Kane Xu, Global VP, Envision, India. "When you think about turbines sitting in rural areas—on mountaintops or in the ocean—there must be a quality system in place that enables you to achieve the highest levels of performance."



Experience Counts

Jabil's long-standing experience with organizations across the global wind industry, including leaders in renewable energy and energy harvesting, gave Envision the confidence to forge a manufacturing and supply chain partnership. Backed by Envision's engineering precision and deep R&D expertise, Jabil manufacturing experts in Wuxi, China, helped build 90-ton nacelle, hub and power unit assemblies and control systems.

In addition to expertise in manufacturing large form factors, Jabil supported prototype and NPI management, full power production testing, value engineering and complete supplier management. "Jabil's Wuxi team works extremely hard," says Xu. "They communicate very well with our planning, production and quality teams to really help us to fulfill emerging orders for our customers."

According to Jabil's Scott Gebicke, Global Head of Energy, Industrial & Building Group, the ability to manufacture 90-ton nacelles—the size of a large motorhome—requires highly adept process engineering. "We've created repeatable processes at a large scale, which takes teamwork and determination," he adds.

Close collaboration, coupled with a shared culture of innovation, spurred Jabil's decision to open a manufacturing facility in India dedicated to Envision. As the country is the second largest territory for Envision, the strategy to align localized supply chain and manufacturing resources was driven by aggressive expansion plans.



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Global Footprint Expansion

An important element of Envision's initial decision to work with Jabil is its global footprint and mindset in terms of IP protection and unwavering focus on consistent service delivery. For that reason, the decision to open a greenfield operation in India not only reinforced Envision's go-to-market strategy but also enabled the company to quickly and effectively address localized market requirements.

In five months, which is considered record breaking in the manufacturing world, Jabil stood up an entire factory with the capability to produce up to 300 wind turbines annually. "For Jabil's industrial and process engineering teams, building this capability at this large a scale and this fast is something we hadn't done before," says Gebicke. "We did it together with Envision."

Jabil also helped Envision create a strong local supply chain and a manufacturing base to better serve customers in this emerging market. By leveraging Jabil's purchasing power, economies of scale were realized across Envision's Bill of Materials (BOM) while developing strategic supplier relationships for key commodities. Jabil also enabled Envision to expand its approved vendor list (AVL) for greater supply chain

flexibility, increased cost savings and less risk.

Additionally, the opportunity to handle manufacturing and assembly in India led to additional cost efficiencies, enabling Envision to reduce the cost of making wind turbines by up to 30 percent. "The team did a great job to ramp the new factory from producing zero to 50 wind turbines in just three months," says Zhang. "I don't think anyone else in the marketplace has been able to demonstrate such a fast ramping capability."



"I believe Jabil makes us stronger by collaborating and enabling Envision to focus on our core capabilities."

> Lei Zhang, Founder and CEO, Envision Group

Gateways to an Energy Ecosystem

With operations in more than 100 sites in 26 countries, Jabil is in lockstep with Envision's plans to further extend its global footprint while reinforcing industry leadership with its smart energy solutions. Additionally, Jabil's expertise across a range of digital technologies—from advanced systems integration to IoT and big data—is ideally suited to support Envision's long-range vision for initiatives involving energy IoT and smart cities.

Driven by an entrepreneurial spirit and commitment to improve the way people interact with energy, Envision is collaborating with Jabil to make the new era of beautiful energy a near-term reality. "We both want to innovate very rapidly and expand beyond our current capabilities," concludes Gebicke. "Both Jabil and Envision are ready to create new value in a new space, which is what's required in this fast-moving industry."

Both companies are focused on innovating and expanding their rosters of wind and renewable energy solutions while mitigating the risks of entering emerging markets. "We believe energy is the gateway to accelerating sustainable development worldwide," notes Zhang.

About Jabil

Jabil (NYSE: JBL) is a manufacturing solutions provider that delivers comprehensive design, manufacturing, supply chain and product management services. Leveraging the power of over 200,000 people across 100 facilities in 26 countries, Jabil simplifies complexity and delivers value for a broad range of industries, enabling innovation, growth and customer success. For more information, visit **jabil.com**.

