

CASE STUDY

solaredge



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SolarEdge Technologies

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Smart Energy

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Israel

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3,900+

solaredge.com/us

- Accelerated pace of innovation required manufacturing agility to produce 50 different products per quarter

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Massive production volumes necessitate automation and global supply chain intelligence

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- Jabil's energy industry expertise, manufacturing excellence, end-to-end quality tracing and operational efficiency proved essential to high-volume production
- Dual-site strategy, vertical testing facility, **BENEFITS**

- Industry-leading automation cuts manufacturing time by nearly 50%, enabling production of tens of thousands of products each week
- Seamless collaboration drives constant flow of new product introductions and up to 300 engineering changes each month
- Embedded NPI, engineering and R&D teams ensure superior product reliability and quality of more than 2.5 million inverters and over 60 million power optimizers



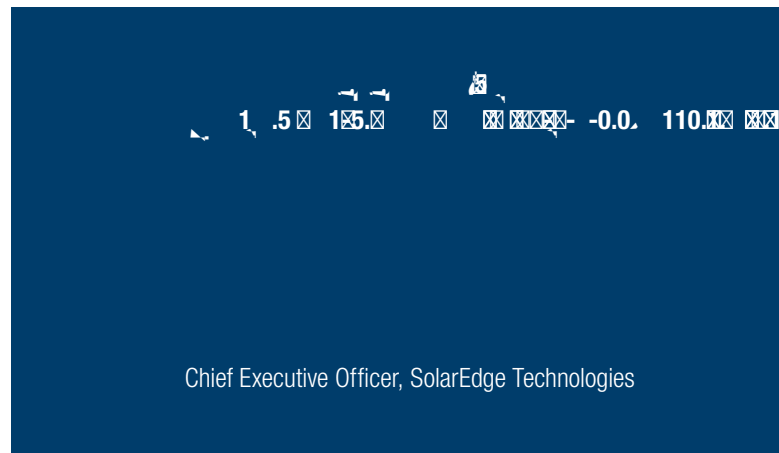
For decades, solar energy has been heralded for its undisputed potential to save the planet by being one of the fastest growing and most economical sources of new electricity. Now, solar energy is poised to help countries around the world achieve carbon neutrality or “net zero” emissions as pledged during the COP 26 Climate Change Conference in Glasgow.

On the heels of this historic climate conference, world leaders are seeking solutions for rapid scaling of energy efficiency measures to decarbonize energy systems. According to the International Energy Agency (IEA), a step-change in energy efficiency will provide the righting chance our planet needs to stave off the worst effects of climate change.

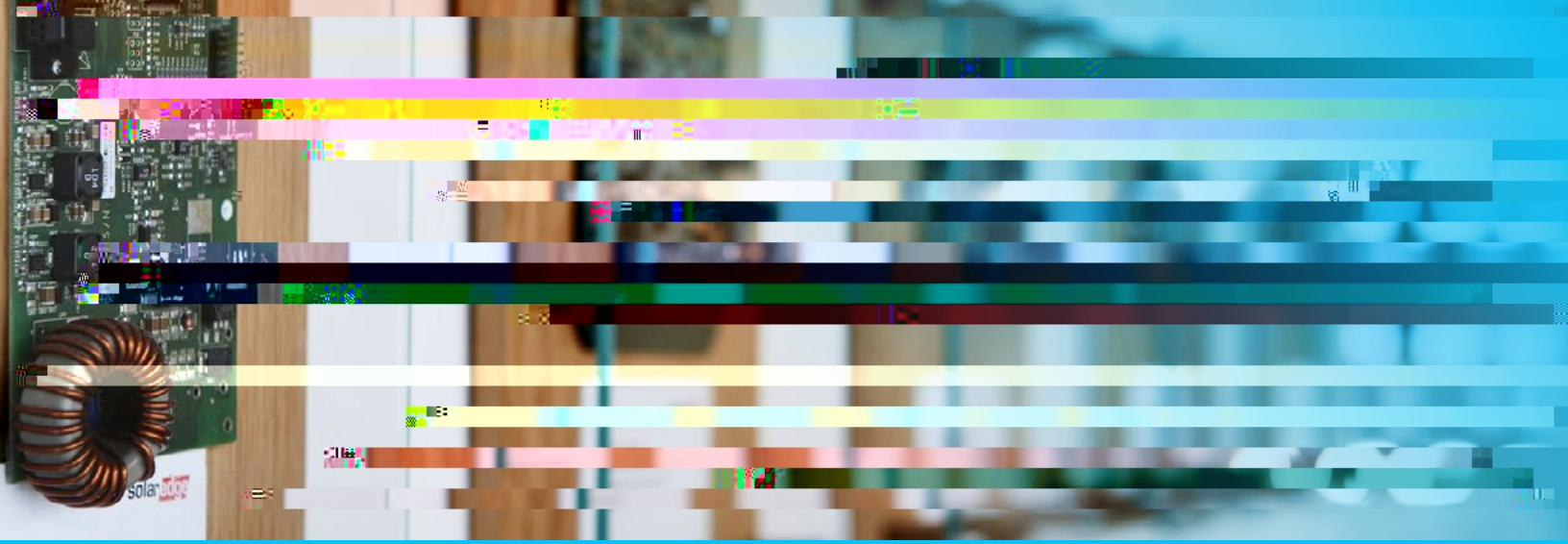
Since 2006, SolarEdge has doubled down on its efforts to change the way power is harvested and managed in photovoltaic (PV) systems. The company’s intelligent inverter and battery solutions optimize power generation while lowering the cost of energy produced by PV systems. “The core of our solution is a small box that is mounted on every solar panel, called the power optimizer,” explains Zvi Lando, Chief Executive Officer of SolarEdge Technologies. “We produce tens of millions of products every year. High-volume, high-quality, low-cost manufacturing is our lifeline to meeting aggressive growth demands and unrelenting product quality expectations.”



SolarEdge’s ascent from savvy tech startup to global leader in smart energy technology was a straight path paved with engineering excellence, endless innovation and a time-tested manufacturing collaboration with Jabil. Less than 10 years after its founding, SolarEdge fueled its fast-growth trajectory by going public on NASDAQ and scaling product development to install more than 2.5 million inverters and more than 60 million power optimizers in over 130 countries across five continents.



Chief Executive Officer, SolarEdge Technologies



Close cultural alignment is credited for driving operational success. “Everyone is trying to do the right things for the right reasons,” says Lando. “We understand each other and see eye-to-eye to get issues resolved. I have found that attitude time after time in working with Jabil executives, which is critical and the key to a good relationship.”

Several hundred SolarEdge employees are embedded at Jabil facilities, including the company’s Vice President of Engineering and members of its New Product Introduction (NPI) team. Working together under one roof, SolarEdge, with Jabil’s seamless assistance, can respond to customer and market demands with speed and agility.



Chief Operating Officer, SolarEdge Technologies



50%.



President, Industrial Division, Jabil

“Jabil understands our language and culture,” says Bechor. “If we need a specific component that is shorting, they will do whatever it takes to get it fast, and pass it over to R&D for testing. They are integral to our process to launch products on time and at the right quality levels.”

As part of this collaboration, SolarEdge takes advantage of Jabil’s Value Analysis and Value Engineering (VAVE) approach to expedite the transition of proven designs into fully tested and qualified products. “We’ve done tremendous things together to create an optimum manufacturing environment,” says Gebicke. “We deployed an automated solution that enables Jabil to operate in the leanest and most efficient way possible while decreasing manufacturing time by almost 50%. This makes a big difference when you’re making tens of thousands of products each week, if not millions in a month.”



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As a testament to the close working relationship between the two organizations, Jabil provides global supply chain support in every region served by SolarEdge. A sophisticated supply chain is needed to address constant change while accommodating large-volume manufacturing. “You need to be meticulous in assessing what type of material and components will be needed and by when,” says Lando. “Our ability to work together, understand what’s needed and communicate has been accomplished with a very cooperative spirit over the years.”

This stellar support was reinforced during major supply chain disruptions resulting from the COVID-19 pandemic, as both companies moved quickly to minimize any impact on production. The Jabil supply chain team waved a lot of red flags as soon as they began encountering supply constraints. With the aid of Jabil’s digital supply chain intelligence, the global team forecasted long-lead items, submitted pre-orders and created buffers with different suppliers to secure component supplies. As component constraints evolved into raw-material shortages, and then logistical challenges, the team continuously sought proactive solutions, including qualifying new components rapidly, modifying product designs as well as moving production into different locations when faced with factory closures. “The actions we took with Jabil’s supply chain leaders at both site and corporate levels helped us navigate this rough sea to reach a much better place today,” adds Bechor.

When teams couldn’t meet face-to-face, Jabil deployed Augmented Reality/Virtual Reality (AR/VR) and live software testing to maintain open lines of communication and keep projects on track. Additionally, when SolarEdge rapidly moved to acquire battery technology, Jabil adjusted its supply chain and manufacturing lines to build inverters that delivered solar power as well as charge batteries. “As SolarEdge has evolved their product roadmap, we have kept stride with each major technology step to help them introduce new products and new technologies every month, or every few months,” Gebicke notes.

