Aes solar system robot

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Maximo features image reconstruction capability – a proprietary generative AI pipeline that can reconstruct images that are obscured by glare or other lighting conditions.

The utility company plans to deploy Maximo in the construction of the 2GW Bellefield project in Kern County, California – the largest solar-plus-storage project in the US, contracted with Amazon.

"We are facing unprecedented increases in demand, driven in large part by the rise of AI and data centres, and innovations like these will be fundamental for accelerating our ability to bring projects online faster and with greater efficiency."

The AES Corporation introduced “Maximo” today, an AI-powered solar installation robot. Maximo is a robotic solution that works alongside construction teams to help meet rapidly growing renewable energy demand. AES released its first AI installation robot called Atlas in 2021.

According to the IEA, by 2035, solar annual additions are expected to triple, and the workforce will need to nearly double. Maximo can install solar panels in half the time and half the cost, working together with on-the-ground crews to accelerate renewable energy deployment, reducing time-to-power for customers.

“Maximo is the first proven solar installation robot on the market,” said Andr?s Gluski, AES President and CEO. “We are facing unprecedented increases in demand, driven in large part by the rise of AI and data centers, and innovations like these will be fundamental for accelerating our ability to bring projects online faster and with greater efficiency.”

Maximo enhances the safety and scalability of solar installation by automating the heavy lifting for placing and attaching solar modules. It accelerates project timelines, creates new high-tech jobs and brings opportunities to new segments of the workforce.

AES will utilize Maximo in its construction of the 2-GW Bellefield project in Kern County, California, the largest solar + storage project in the U.S., under contract with Amazon. Oak Ridge Solar project in Louisiana, also helping power Amazon operations, was a significant milestone in Maximo’s journey as its first utility-scale deployment.

“As society’s energy needs grow, the demand for new solar and wind projects are also increasing, requiring us to innovate so we can scale more quickly,” said Chris Walker, Director of AWS Sustainability. “We’re excited to collaborate with renewable energy developers like AES that are prioritizing the use of AI technologies that can help us fast-forward to a carbon-free energy future.”

“Today, the US solar industry is setting an impressive pace, installing about 15,000 modules per hour, weighing one million pounds. Looking ahead, this installation rate is projected to reach 50,000 modules per hour by 2035,” said Chris Shelton, AES Chief Product Officer. “In response to this exponential growth, we are scaling Maximo, deploying fleets of continually improving robots to empower our teams for faster and more competitive installations.”

Maximo can perform in a broad range of climates and lighting conditions and has been validated in the field across a variety of U.S. project sites. It will begin installing at Bellefield in August.

Kelsey Misbrener has a degree in magazine journalism from Kent State University. As Managing Editor for Solar Power World, she oversees SPW"s online and print content and ensures it furthers the mission of helping installers, developers and other industry stakeholders do their jobs better. Kelsey is passionate about renewable energy and enjoys spending her free time in nature with her family.