

Bouygues Construction Australia Deploys AI-Powered Robotic Piling Technology for Engie's Goorambat East Solar Farm

May 1, 2025



Bouygues Construction Australia (BCA), the Australian engineering, procurement and construction (EPC) arm of Bouygues Construction SA, is currently trialing an advanced Autonomous Piling System (APS) for the development of Engie's 250 MW Goorambat East Solar Farm (GESF) in Victoria, Australia.

The deployment of the APS, supplied by US-based Built Robotics, marks a significant step towards automation in utility-scale solar construction. BCA is utilizing the technology to install approximately 500,000 solar panels at the GESF site near Benalla.

Bastien Sauvet, BCA Project Director, highlighted the enhanced efficiency and accuracy provided by the APS. The system leverages artificial intelligence (AI), advanced global positioning systems (GPS), and sensor technology to precisely drive piles with minimal human intervention.

"This initiative represents a major advancement in automating the construction of utility-scale solar projects, offering the potential to reduce costs and accelerate project timelines while upholding stringent safety standards," said Sauvet.

Leigh Newbery, Engie General Manager of Engineering and Asset Delivery, emphasized the promising prospects of the autonomous piling technology for the renewable energy sector.

"The operation of this sophisticated machinery requires skilled technicians, thereby contributing to the upskilling of the renewable energy workforce and enabling increased productivity," Newbery stated. "The anticipated higher productivity will contribute to lower costs for renewable energy projects and enable faster construction, ultimately benefiting consumers through reduced energy expenses and facilitating the

deployment of more renewable energy capacity.”

Newbery also noted the potential benefits of such autonomous systems for solar farm construction in remote and challenging environments, where extreme climate conditions can pose risks to human personnel. Furthermore, the integrated safety features of the APS, including geofencing, visual and audio alerts, emergency stops, and AI-powered collision avoidance cameras, are expected to contribute to a reduction in health and safety risks associated with construction activities. The technology also offers a significant reduction in noise pollution during the piling process.

Installation of solar panels at the Goorambat East Solar Farm commenced in March 2025, with piling activities expected to be completed by June 2025. The project is on track to commence operations in 2026, with a capacity of up to 250 MW, capable of powering approximately 105,000 homes. Bouygues Construction Australia is managing the on-site works, with a dedicated project team overseeing all aspects of the construction.