

NEW PILE DRIVER TECHNOLOGY EXPEDITING SOLAR PROJECT CONSTRUCTION



With the number of new solar farms planned and under construction increasing, there is an opportunity for construction companies to diversify their capabilities into the renewable energy space. CableNet Industries saw this as an opportunity to develop more practical ways of designing and constructing mechanical packages for large-scale solar farms. Key to being able to offer this was procuring reliable and accurate equipment to get the job done on time and on budget.

CableNet Industries was founded in 2002 and is now one of the largest communications infrastructure companies in Victoria, with the capability to offer turnkey installations in-house. It has widespread experience in the telecommunications industry and provides excellence in customer service with a committed workforce.

The company's fleet is made up of horizontal directional drills used for installing communication and electrical conduits; communication carriers for rail and road projects; and vacuum excavators to support the drills and provide non-destructive underground asset location.

Over the last two years, the company has expanded its capabilities to service the renewable energy market and has since worked on a number of large solar farm projects.

Accuracy is the key to efficient installations at Numurkah

Luke McDonald, Chief Operations Officer at CableNet Industries, said the company has recently finished working on the construction of the 100MW Numurkah Solar Farm, north of Melbourne, with the Vermeer PD10 Pile Driver playing a significant role in getting the job done quickly and accurately.

"We were able to install 47,000 piles in eight weeks using six PD10 machines, all equipped with the Carlson GPS system," Mr McDonald said.

"By having the Carlson GPS system integrated with Vermeer's pile driver, the machine and GPS system are able to talk to each other, allowing greater accuracy and greater repeatability on the piling. It takes out a lot of the need for surveying the piles, and gathering as-built information, because it's all there with the GPS system.

"By using this machine, we're finding that we're getting our out-of-tolerance piles below one per cent on the project. This level of accuracy is extremely high, and gives clients a lot of confidence in the products and services that we can offer."

Combined with the Carlson GPS, productivity on site also increased due to the PD10's inclinometer with auto-plumb and laser-controlled post-depth-control features that correct pile angle to be completely vertical without any manual adjustment by the operator.

The PD10 is enabled with Vermeer InSite, a tool that allows the contractor to see vital information from the computer in their office, such as idle time, work time, fuel usage, and machine location.

CableNet Industries has also used the PD10 Pile Driver on the 110MW Bannerton PV solar farm in north-west Victoria where it provided design, engineering and site management of the mechanical package, installed 47,000 steel piles with help from the Carlson GPS, and provided design and set up of a GPS base station for use by EPC and contractors.



A growing fleet

Along with the PD10 Pile Drivers, CableNet Industries have a large fleet of Vermeer equipment that it uses on solar projects, as well as telecommunication and civil construction projects. These include horizontal directional drills and VSK100-1600DP truck-mounted vacuum excavator unit.

It has been the experience of dealing with Vermeer and the reliability of the equipment that has seen the company continue to invest in additional Vermeer equipment such as the pile drivers.

"We've run Vermeer drills and vacuum units for a number of years, and they've been reliable. They've also got a big support network for maintenance and parts across Australia," Mr McDonald said.

"I've known the Vermeer customer service team for a long time and they are very approachable. If they haven't got the answer to a problem, they'll always get back to you with one." ■

"To answer the need for quick-working, accurate equipment, Vermeer has partnered with leading providers of positioning and machine control solutions, Position Partners, to develop the robust and productive PD10 pile driver fitted with Carlson GPS machine guidance system. Developed from the ground up for high-precision large-scale solar installation, the Vermeer PD10 featuring native Carlson GPS machine guidance enables outstanding overall tolerance—well within most construction tolerances specifications."