

NOV Solar



Experts in energy no matter the source

NOV is an expert in energy that delivers reliable and cost-effective solar solutions by leveraging unmatched engineering knowledge, a proven global supply chain, and technical sophistication.





Purposeful Innovation and Technical Sophistication

Every solar site presents unique demands and criteria crucial to the success of each project. Our ArcMinPV range of racking systems are purposefully tailored to accommodate the geographical, topographical, and climatic challenges inherent to every project.

Guided by our commitment to research and development, our team holds the engineering expertise to forge solar solutions that overcome the ultimate trial — long-term structural resilience. This customer-centric focus propels us to engineer solutions that not only streamline installation timelines but also curtail operational and maintenance expenses across the asset's lifecycle.

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Unparalleled Supply Chain Superiority

World-class supply chain methodologies to access the right manufacturers across the globe.

Our clients demand more than just durable products that withstand the harshest conditions. They expect the highest standards of supply chain excellence — precise specifications, on-time deliveries, and the assurance that goods will arrive undamaged and without any setbacks. Understanding the economic intricacies of manufacturing, we leverage our supply chain experience to pursue the most competitive price points. And as our customers can tell you, we have a dependable and unwavering supply chain standard that facilitates the smooth transition of material delivery to final installation.

Our team deploys world-class supply chain methodologies to access the right manufacturers across the globe and deliver products to our customers by leveraging supply chain protocols from our legacy businesses. These proven strategies ensure top-tier production quality, early identification and resolution of issues, and access to capital resources, enabling strategic investments in diverse manufacturing partnerships.



Experts In Energy, Project Execution

We are experts in energy, no matter the source, and have reliable and cost-effective solar solutions. We have pioneered innovations that meet the needs of the changing energy landscape and have already succeeded in advancing offshore wind initiatives. As we assist in efforts to advance the energy transition, our ability to endure market fluctuations, secure capital resources when difficult, and pivot our expertise is how we will be a partner of choice for the solar industry.

We have expansive and complex project development expertise, tailor-made manufacturing capabilities, and an extensive track record of collaborating closely with clients to deliver novel solutions. We harness the NOV approach, where hands-on project management extends from contract initiation to the commissioning of installations. This proactive and collaborative approach addresses customer pain points, ensuring the delivery of economically viable projects.

Partnering with your teams, we will iteratively navigate through the project lifecycle, employing efficiency and foresight to ensure seamless project execution. From comprehensive wind analyses to in-depth geotechnical assessments, we stand shoulder-to-shoulder to directly navigate any potential obstacles. Our commitment to introducing solar solutions through the NOV way will enable customers to experience the power of what is possible.



ArcMinPV Solar Solutions



Our family of solar energy solutions known as ArcMinPV includes the GeoPro fixed-tilt solar racking systems and the TechTrack single-axis solar trackers. Combined with our knowledge and know-how in large project development, integrated custom packages, and a long history of working closely with customers to deliver solutions, ArcMinPV creates new options in renewable energy technology for solar utilities, developers, and EPC's.

GeoPro fixed-tilt solar racking systems

A low-cost and quick-to-deliver product that solves a wide variety of challenges encountered on solar array sites. With superior adaptability and flexible product packages, GeoPro is trusted in over 2 GW of solar installations.

TechTrack single-axis solar trackers

TechTrack offers clear project cost reduction through its dynamic design and dependability. It offers comparable site flexibility, ensuring customers have optimized power and maximum yield.



General Data Sheet

Tilt angles	10°, 15°, 20°, 25°, 30°
Grade of Terrain	20% grade changes can be accommodated with standard components. For greater grade changes, our designers will work with your team to reduce unnecessary pre-installation civil work.
Materials	Galvanized steel components; stainless steel and galvanized steel fasteners
Grounding	Fully integrated grounding. ETL listing to UL 2703. Tables may be bonded together using NOV UL 467 listed Table Splices to form a continuous GeoPro rack.
Module Compatibility	All major framed brands.. Standard purlin hole spacing is designed to accept a module mounting width range from 922-966mm /36.28"-38.09". For modules outside of this range, a custom hole pattern may be accommodated.
Foundation Flexibility	Driven pile, others possible
In-field Flexibility	+/- .5" vertical, +/- 1" east-west, +/-1" north-south, 2° rotation about post vertical axis, 1° out of plumb Additional vertical flexibility can be achieved via installation tolerances on post embedment depth.
Installation Rates	A four-person crew working a 7.5 hour day can install more than 255 modules/day.
Testing	GeoPro's design is based on extensive testing and validation including boundary layer wind tunnel and mechanical tests.
Warranty	Industry acceptable periods and negotiable
Manufacturing	International sourcing with domestic options



GeoPro



Trusted in connection with more than 2 GW of installations, fixed tilt GeoPro solves a wide-range of ground mount project challenges, including irregular site boundaries, steep/uneven terrain, last-minute module changes, pile driving refusals, snow loads, and high wind sites.

Lowest cost. Fastest delivery.

Through universal parts and a module-independent design, GeoPro can be offered at low price points and with the short lead times for utility-scale and commercial projects of 100 kW and above.

Superior System Flexibility

GeoPro can be adapted to any site and optimized for a project's unique wind, snow and geotech conditions. It offers maximum foundation flexibility for soils of all types. The system also boasts 20 percent east-west terrain following on constant slope or rolling terrain, while allowing piles to be installed plumb.

In addition, GeoPro is module independent – able to accommodate last-minute module changes without requiring changes to project design. Currently offering portrait module orientation depending on project priorities.

Small or large table sizes are configured and provided incrementally to maximize capture density on any parcel of land.

Both wire management and grounding are integrated into the racking, simplifying total balance of system complexity and significantly lowering both labor and material costs.

Project packages

Customers can count on pricing transparency and product/service customization via GeoPro product packages:

- Includes world-class engineering, stamped structural packages, and project management support
- Features components that provide more adjustability, and pre-assembled parts for installation efficiency

Full-cycle Support

NOV can provide a range of services including project layout and design, geotechnical testing, and assistance with installation on a per project basis. Support continues for these products after installation and decades into the future--the NOV standard.

TechTrack

TechTrack single-axis tracker introduces a new era in tracking with dynamic controls, site flexibility, and measurable reductions in total project costs.

Superior structural efficiency

TechTrack's innovative design reduces maximum torque, resulting in a stronger, lighter, more cost-effective tracker.

Increased power

Continuous tables and nominal 120° tracking yield industry accepted power density and generation.

Dynamic Design

TechTrack reacts intelligently to real-time conditions to increase generation and reduce risk of harm to the power plant. Dynamic Stabilization™ provides familiar damping characteristics when unlocked and secures the structure via proven locking technology during design-critical events. The result is a lighter system mass per MW, resulting in lower system costs.

Reduced field work

With distributed drive architecture and strong terrain following capabilities, TechTrack performs flawlessly on even the most challenging sites. Foundation work is minimized by the fewest posts/MW possible, and self-powered, wireless controllers reduce field wiring.



General	
Tracking type	Single-axis horizontal
Nominal tilt range	120°
Module compatibility	All major brands
Module mount	1-high in portrait standard
Array configuration	<ul style="list-style-type: none"> • Optimized for 90 module row maximum: 30kWDC per row; 3 strings at 1500VDC • Row lengths of 1-3 strings at 1500VDC and 2-5 strings at 1000VDC
Ground Coverage Ratio	Freely configurable (0.33 to 0.5 typical)
Wind + Snow Load Capacity	<ul style="list-style-type: none"> • 105 mph/5 psf standard • Configurable for high wind (up to 150 mph) and high snow (up to 60 psf) • 35 mph stow
Foundation	11 driven piles per 90 module row standard
Dynamic Load Management	Dynamic Stabilization™
Terrain Following	<ul style="list-style-type: none"> • Constant grade: 10% maximum (N-S) • Change in grade: 2% (N-S)
Materials	Galvanized Steel
Construction	Designed for ease of assembly; no field welding or cutting
Certifications	UL 2703 (bonding and grounding), UL 3703
Warranty	<ul style="list-style-type: none"> • Mechanical and structural components - industry acceptable periods and negotiable • Controls and actuators - industry acceptable periods and negotiable • Extended Warranty + O&M available; pricing upon request

Actuation	
Drive	Self-powered drive with wireless controller: <ul style="list-style-type: none"> • Slew drive • 24VDC motor • LiFePO4 battery • Integrated solar panel
Time to Slow or recover	Less than 3 minutes
Field Wiring	No external wiring to the controller for power or communications

Monitoring and control	
On-site Communication	Secure, proprietary mesh network
Sensors	Wind (direction and speed), tilt angle and battery charge included standard Weather



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