



 nexttracker™

NX Horizon-XTR™





NX Horizon-XTR™

Tackle Challenging Terrain

With NX Horizon-XTR, grading for tracker installation can be massively reduced or eliminated altogether. By conforming to the shape of existing terrain, Horizon-XTR cuts construction cost, minimizes environmental impacts, and mitigates project risk. Horizon-XTR features an innovative approach to terrain-following, built on NX Horizon’s 75 GW of proven technology. Project owners can pair XTR with TrueCapture™ yield optimization software to maximize energy generation for their unique topography. And starting in 2023, XTR-1.5 doubles NX Horizon’s capabilities and can be deployed on more challenging terrain than ever before.

Key Features and Benefits



Cut Construction Costs & Timeline

Grading is time-consuming and expensive. NX Horizon-XTR can dramatically reduce or even eliminate grading, saving up to:

- 6,000 cubic yards/MW of grading
- 9,000 lbs/MW of foundation steel
- 5 acres/MW of soil re-seeding



Minimize Environmental Impacts

Grading can disturb ecosystems. NX Horizon-XTR helps protect the land by:

- Preserving native topsoil and vegetation
- Preventing habitat disruption
- Avoiding soil erosion and storm runoff



We are seeing more and more projects these days having undulating terrain, and Horizon-XTR allows us to build up and over a hill, without having to flatten it out.

– Donny Gallagher
VP Engineering,
SOLV Energy

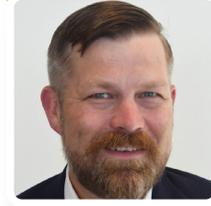




Mitigate Project Risk

Grading introduces risk. NX Horizon-XTR helps projects by:

- Simplifying permitting and improving community acceptance
- Avoiding grading delays and cost overruns
- Preventing land remediation



Horizon-XTR allows us to decouple some of the earthwork that used to be mandatory and allows us to build the best structure for the land as it is now.

– **Nick de Vries**
SVP of Technology and
Asset Management,
Silicon Ranch



Proven Technology

NX Horizon-XTR is based on NX Horizon's proven core architecture. This technology is uniquely suited for grade-following applications without the use of complex joints, avoiding risks other technologies pose like:

- Loss of tracker row torsional stiffness
- Friction or binding of bearing components, wearing of articulating joints
- Complex drive mechanisms
- Limited track records



NX Horizon-XTR, the field-proven solar tracker for hilly terrain with more than 5 GW deployed on multiple continents

GENERAL AND MECHANICAL	
Architecture	Horizontal single-axis, independent row, mechanically balanced
Configuration	1 x module in portrait
Tracking range of motion	±60° or ±50°
Row Size	Configurable per module type, string length and site layout
Drive type	High accuracy slew gear
Modules supported	All utility-scale crystalline and thin-film modules
Bifacial optimized design	High-rise mounting rails, bearing & driveline gaps, round torque tube
Materials	Galvanized steel; other coatings available
Structural connections	Engineered fastening system, vibration-proof
Wind protection	Intelligent wind stowing with symmetric damping system

SITE CONDITIONS	
N-S site slope	Up to 15%
N-S terrain following	Conformance to native land contours Angular tolerance configured to site conditions
E-W site slope	Up to 15%
Ground coverage ratio (GCR)	No specific limit. Typical range 25-45%
Operating temperature range	SELF-POWERED: -30°C to 55°C (-22°F to 131°F) AC POWERED: -40°C to 55°C (-40°F to 131°F)
Wind speed	Configurable up to 240 kph (150 mph) 10m, 3-second gust
Snow load	Configurable up to 4800 Pa (100 psf) ground load
Flooding	Standard module elevation 1.3 to 1.8 m (4'3" to 5'10"). All drive & control components at torque tube elevation. Increased elevation available with additional engineering
Soils	Complete range of foundation solutions available

ELECTRONICS AND CONTROLS	
Solar tracking method	Astronomical algorithm with backtracking standard. TrueCapture™ available for enhanced energy yield
Tracker controller	Self-Powered Controller (SPC) with integrated inclinometer and UPS
Motor	Brushless DC
Power supply	SELF-POWERED: Standalone smart solar panel AC POWERED OPTION: Customer-provided 120-277 VAC circuit
Site-level control & communications	Network control units (NCUs) at inverter pads/skids Self-powered weather stations Centralized data hub Encrypted Zigbee wireless mesh communications
Defensive stowing functions	Wind, hail, hurricane, snow, flood, loss of grid power
Operator interface	NX Navigator™ advanced HMI available, with SCADA integration

SERVICE, WARRANTY AND STANDARDS	
Tracker engineering & PE stamped design package	Standard
Foundation engineering & PE stamped design package	Available
Onsite construction support & commissioning service	Available
Warranty	10-year structural, 5-year drive & controls standard Extended warranty available
Certifications	UL 2703, UL 3703, IEC 62817, CSA
Warranty	10-year structural, 5-year drive and control components
Codes and standards	UL 3703 / UL 2703 / IEC 62817