

NEXTracker and CleanMax Solar Push Plant Performance Forward





Project Name:

Eluvanampatti Solar Farm

Location: Developer:

Tamil Nadu, India CleanMax Solar

EPC: Modules: PES Engineering 89,200

NX Horizon Financing:
Tracker Rows: Solar power
1,115 purchase
agreement

Benefits:



Generates 15% more energy than a fixed-tilt system



38,500 tons of CO2 emissions avoided per year

Project Overview

Situated in the dry and sunny region of Tamil Nadu, India, the grid-connected 30 MW Eluvanampatti solar farm is providing clean, inexpensive electricity to a major IT company as part of a long-term power purchase agreement (PPA). CleanMax Solar, one of India's leading developers, selected NEXTracker for the advanced technology, performance and reliability of its single-axis tracker system as well as NEXTracker's responsive local support team. Proven, reliable, and in full commercial operation, the NEXTracker system is currently generating 15% more energy over the standard fixed-tilt systems deployed in Tamil Nadu --3% higher than predicted by 3rd party simulation.

The Challenge

In the case of the Eluvanampatti solar farm, there were conditions not uncommon on sites developed for utility-scale solar systems in India: high levels of airborne dust, irregularly shaped land parcels and sloped terrain. Our installation and commissioning teams worked through these environmental and geotechnical challenges, borrowing lessons learned from other regions where NEXTracker has been installed, such as the Chilean desert and the dusty outback of Australia.

nextracker.com Case Study

NEXTracker CleanMax Case Study

NEXTracker Solution: NX Horizon

The NEXTracker NX Horizon™ single-axis tracker features a proven high-quality design and enhanced energy harvest as well as lower O&M costs and better LCOE than other tracker and fixed-tilt systems. Combined with the company's local deployment, installation and global services support, NX Horizon solar tracker is ideal for large-scale Indian solar projects like the Eluvanampatti PV power plant. NX Horizon's drive and electrical components are fully sealed against sand and dust ingress—a critical reliability factor in Tamil Nadu's sometimes-harsh climate.

The independent unlinked-row architecture of the NEXTracker systems gave CleanMax and its EPC partners the flexibility

they needed to design and construct the power plant under challenging site conditions. Since the company's trackers feature fewer foundations and assembly points, geotechnical risks were mitigated and project construction schedules were accelerated.

Benefits

The Eluvanampatti solar farm provides thousands of megawatt-hours of electricity annually to a large Indian IT firm's data center, offsetting much of the facility's power requirements and reducing its dependence on fossil-fuel-based utility power. The financing of the project was made possible in part by one of the largest private sector solar PPAs in Asia to date—a growing trend in the region and the world.

"Achieving a 15 percent energy gain at our Tamil Nadu site was beyond our expectations. NEXTracker's technologies combined with our portfolio of global industrial corporations provide clean energy solutions to India and push the industry forward with innovative ways to improve power plant performance."

- Kuldeep Jain, Managing Director, CleanMax Solar

