

Get the most out of your system

TrueCapture combines advanced sensor, weather forecasting and machine-learning technologies to maximize energy yield. With its smart data capture and model-based predictive control software, TrueCapture helps customers maximize the benefits of their NEXTracker systems, generating more revenues with higher energy yields, better availability, and lower operating costs.

How Does TrueCapture Work?

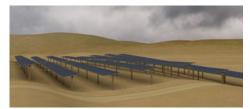
Standard systems track all rows identically, and do not capture as much light as they could. Backtracking can eliminate shading in the first hours after sunrise and final hours before sunset. This comes at a cost in performance, however, as height differences between individual rows are not considered.

As the day progresses, trackers follow the sun as closely as possible using standard tracking algorithms. If the weather changes and becomes cloudier or hazier, energy generation dips again. Why? Tracking angles that were "correct" in the previous direct sunlight conditions don't harvest as much energy when light is scattered.

"If any company can incorporate as-built site conditions and machine learning into its system design, it's NEXTracker. The Company continues to push our industry forward with new ways to improve system performance"







TrueCapture optimizes for diffuse light and uneven ground

Optimize with Smart Control

TrueCapture solves both challenges with a unique, integrated approach. Over the course of the day, TrueCapture continuously dispatches optimal tracking algorithms to each tracker row, correcting for shading anomalies caused by uneven ground and changing weather conditions. As shown in the accompanying chart, the increase in power production widens the "shoulders" of the power production curve for any given day, resulting in better performance and lower LCOE.

Innovation at Work

Proprietary smart panel sensors provide real-time shading information on each tracker row. The data is then processed by machine-learning software to build a virtual 3D model of the job site. From dawn to dusk, TrueCapture's intelligent control engine integrates the virtual model with the latest meteorological forecast data to calculate and send updated and optimized tracking commands to every independent row. As a result, energy production gets a boost.

1 MW Energy Production Standard Tracking vs TrueCapture



Customer Requirements

TrueCapture is compatible with most project sites—contact your NX sales representative to learn more about how to take your performance to the next level.

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