



SOLAR TRACKER OVERVIEW

FIEE 2019

July 2019

COMPANY OVERVIEW

Scaling renewable energy with cutting-edge, bankable solutions

#1

GLOBAL MARKET
SHARE
3 years

GTM Research,
2017, 2016; IHS Markit;
Bloomberg New Energy
Finance Global Tracker
Report, Sept.'17

>100

Flex manufacturing
centers across 30
countries

20

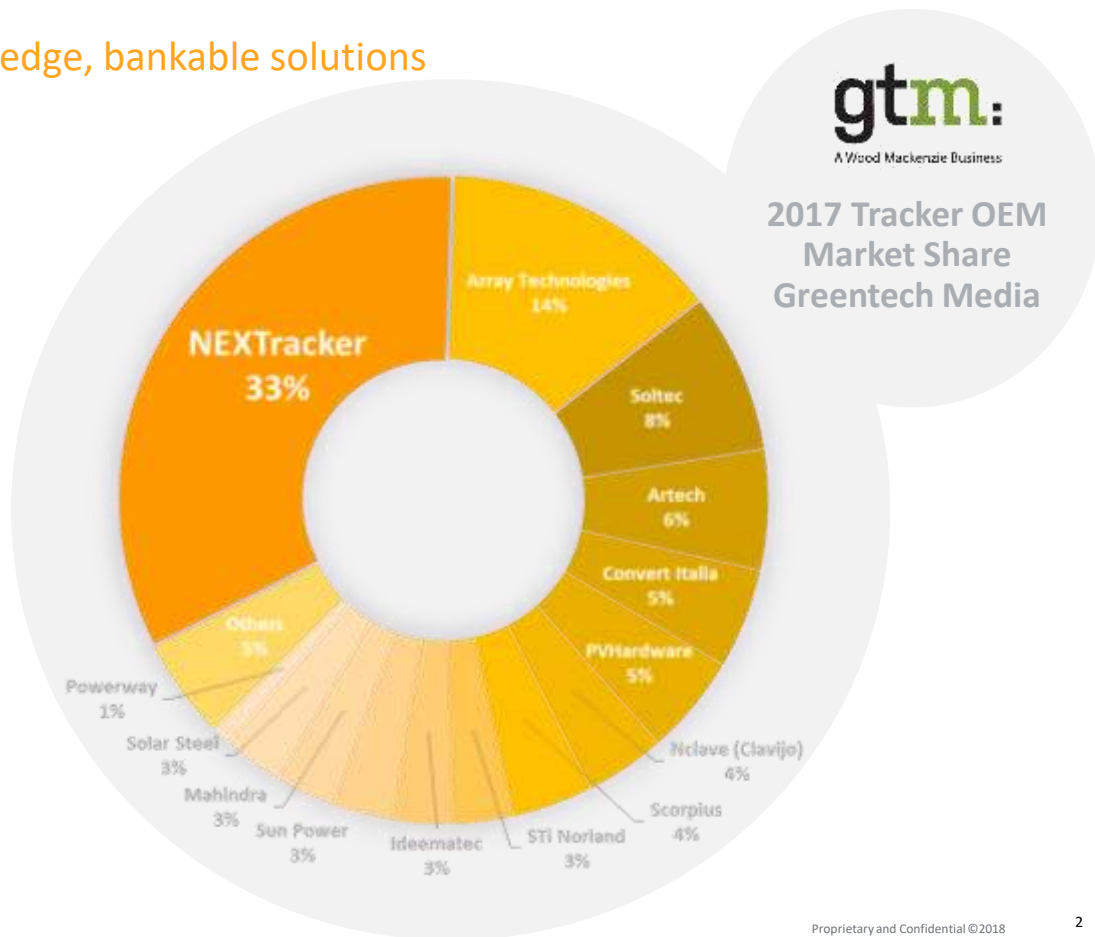
GIGAWATTS

Award-winning solar
trackers sold to date

300

MEGAWATTS

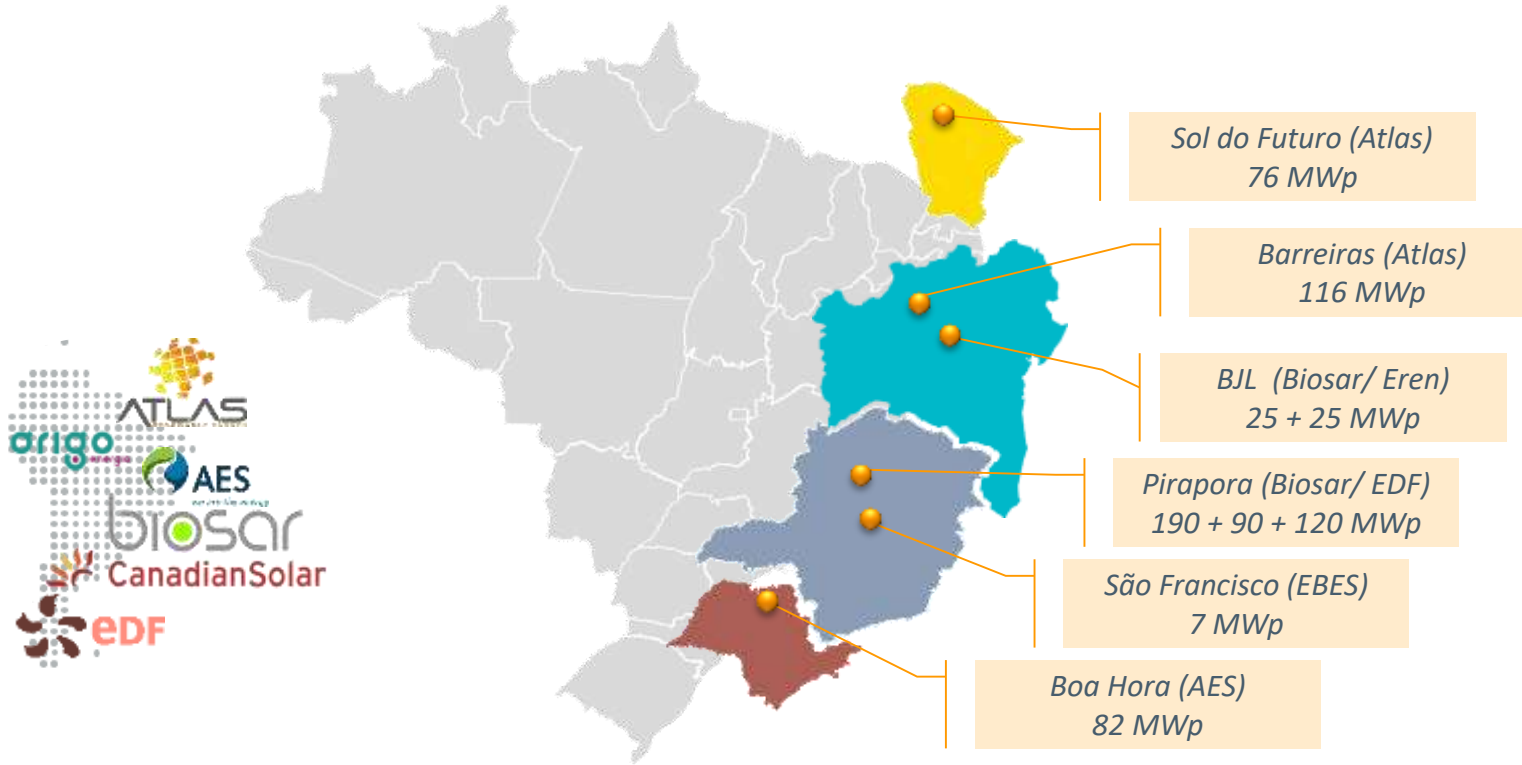
Weekly tracker
manufacturing capacity



BRAZILIAN PROJECTS

731
MEGAWATTS

Award-winning solar
trackers sold to date



PIRAPORA, BRAZIL

400 MW

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PIRAPORA

VILLANUEVA, MEXICO

828 MW

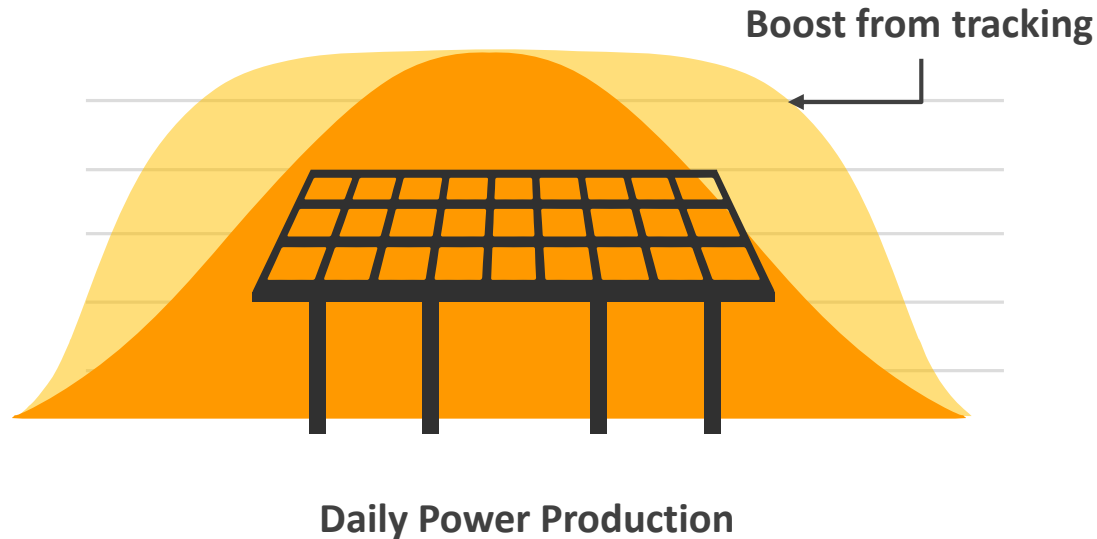


★ Torreón

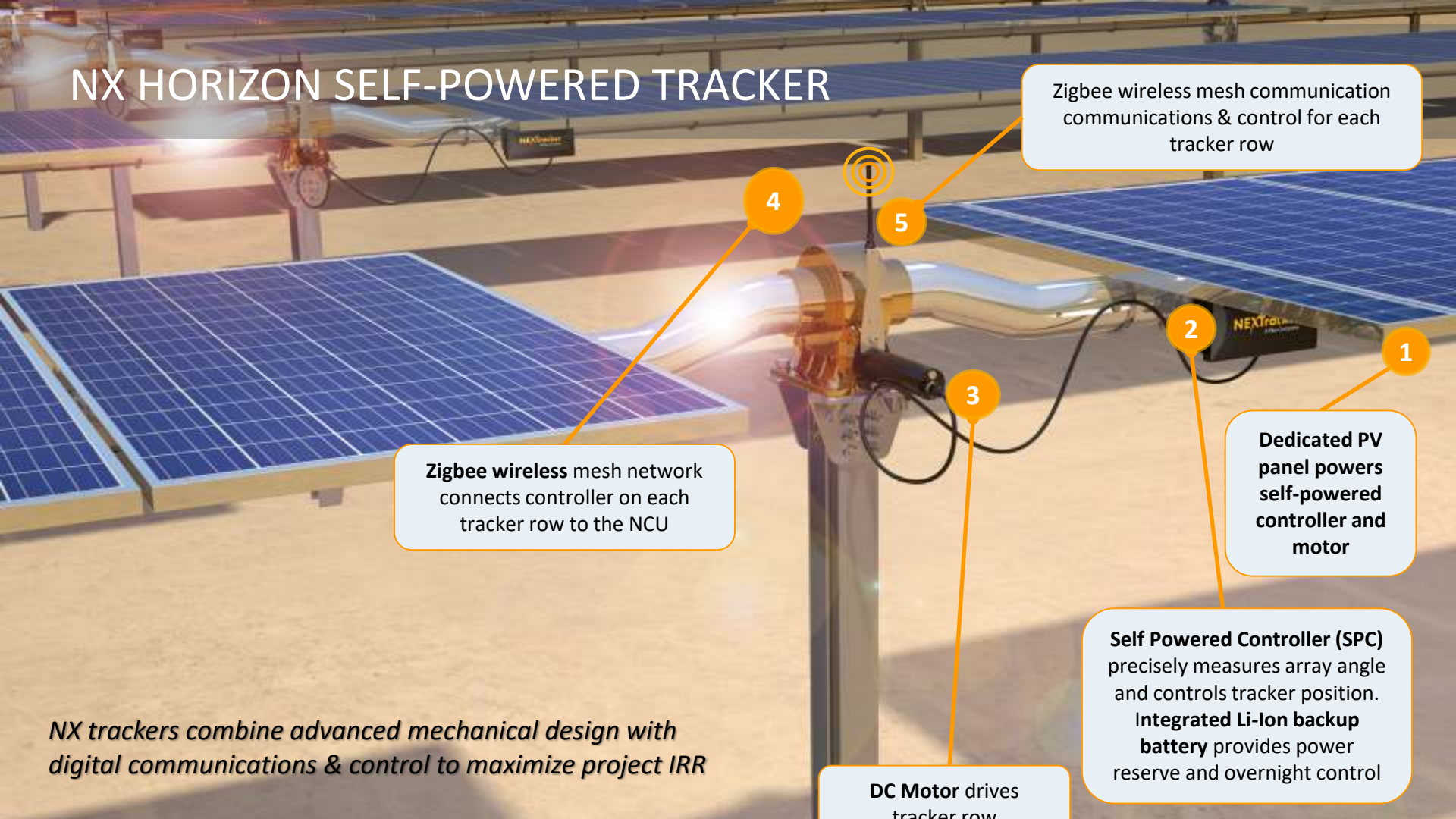
TRACKERS VS. FIXED

- 20% to 30% more energy yield than fixed in sunny locations; and 5-10% more cost
- Tracker cost decreased over 75% in last 20 years (1995 – 2015)
- Yields more revenue/kWh

Tracker Compared to Fixed Mount



NX HORIZON SELF-POWERED TRACKER



Zigbee wireless mesh communication communications & control for each tracker row

4

5

Zigbee wireless mesh network connects controller on each tracker row to the NCU

2

1

Dedicated PV panel powers self-powered controller and motor

3

Self Powered Controller (SPC) precisely measures array angle and controls tracker position. **Integrated Li-Ion backup battery** provides power reserve and overnight control





DC Motor drives tracker row

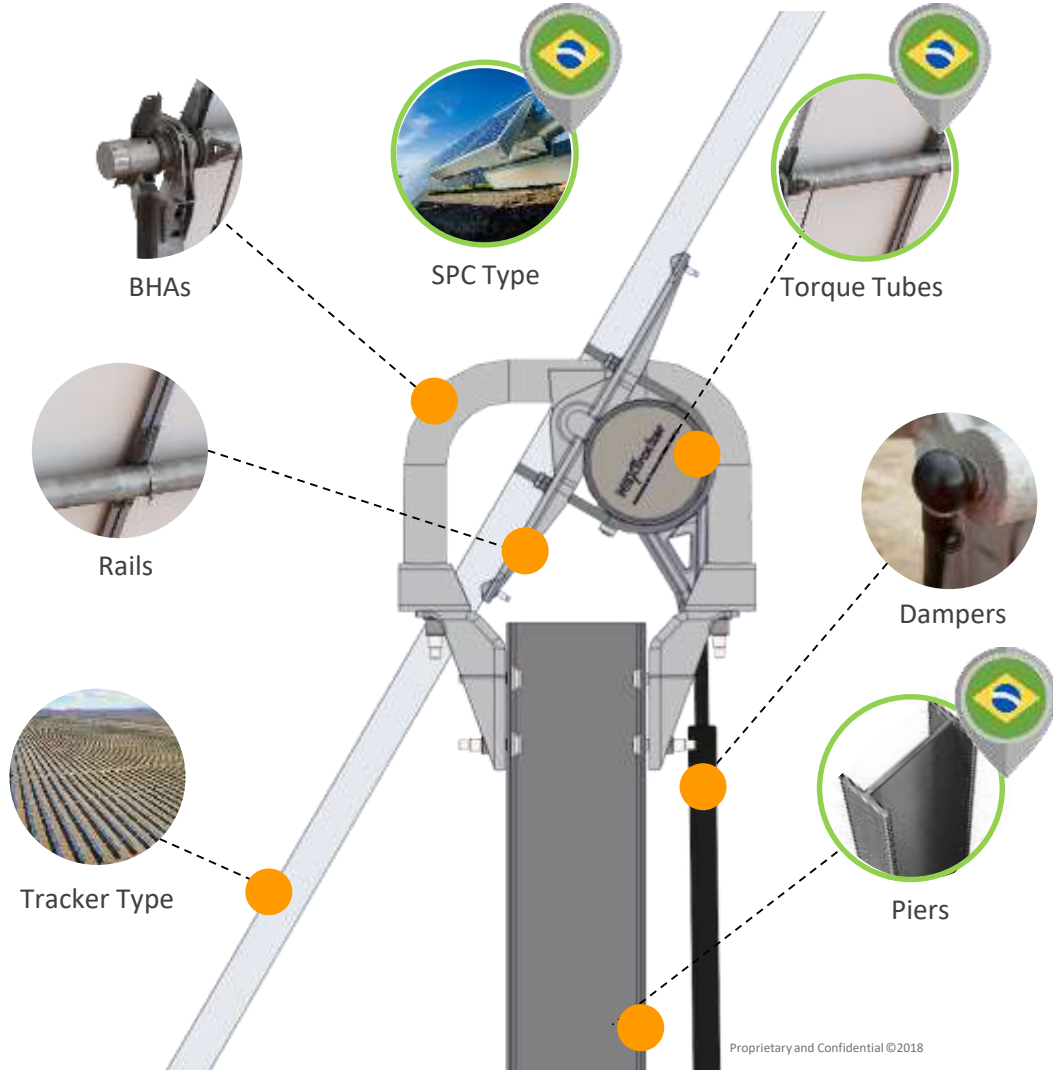
NX trackers combine advanced mechanical design with digital communications & control to maximize project IRR

NX TRACKER (FINAME)

Optimized for Site

- The Tracker Design for each site is optimized for performance in the specific site condition.

Wind	<ul style="list-style-type: none">Winds ≥ 120mph (47 m/s) require extra pre-cautions<ul style="list-style-type: none">Switch to 13 Pier DesignLong Rails may be requiredTorque Tube and Pier require increased steel strength (ksi) valuesCustom Stow Algorithms may be required	
Temperatures	<ul style="list-style-type: none">Historical weather data for the site is reviewed during the proposal stage<ul style="list-style-type: none">Cold weather package needed if average temperature below 0°C / 32°FIf min temperature is below -30°C / -22°F the site is too cold for the Self Powered Tracker. (SPT)	
Snow	<ul style="list-style-type: none">Cold Weather causes increase in voltage<ul style="list-style-type: none">String size is reduced +Tracker Rows are decreased in lengthLow Temperatures require 60W SPC dedicated module, hard-wired SPC possibly required.Snow > 20 PSF require us to stow at 60° = Increased Torque Strength & Pier Loads	
Geotech	<ul style="list-style-type: none">Topographical surveys are taken to optimize the overall site design around existing wetlands or flood zones.	





TRUECAPTURE SMART CONTROL SYSTEM

NEXTracker
A Flex Company

TRUE CAPTURE™, UP TO 6% MORE KWh

REAL WORLD CONDITIONS CAN LIMIT PRODUCTION

- Row-to-Row Height Variances

- “The World is Not Flat”
 - Terrain undulations
 - As-Built construction variances
 - Nearby geographic features



- Diffuse Irradiance

- Overcast/ clouds
- Fog
- Heavy haze or pollution



Mid-day – No problems

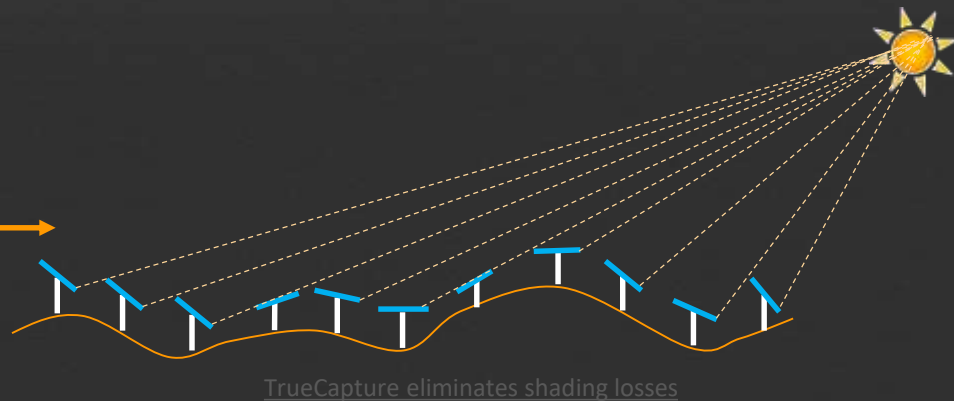
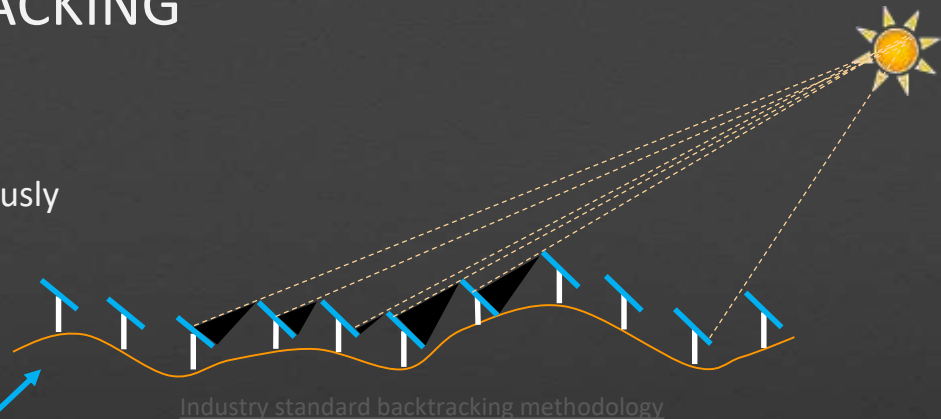
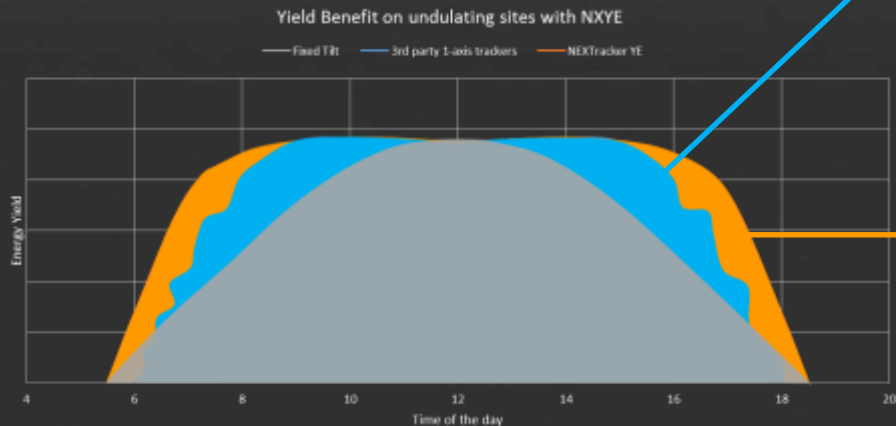


Morning and Afternoon Shading



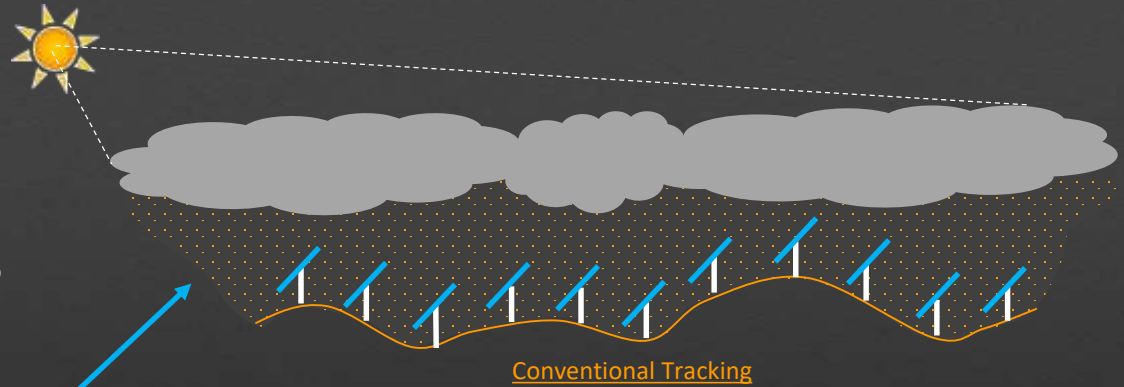
TRUE CAPTURE™ ROW-TO-ROW TRACKING

- Intelligent algorithm optimizes all trackers simultaneously
- Adds to Shoulder periods

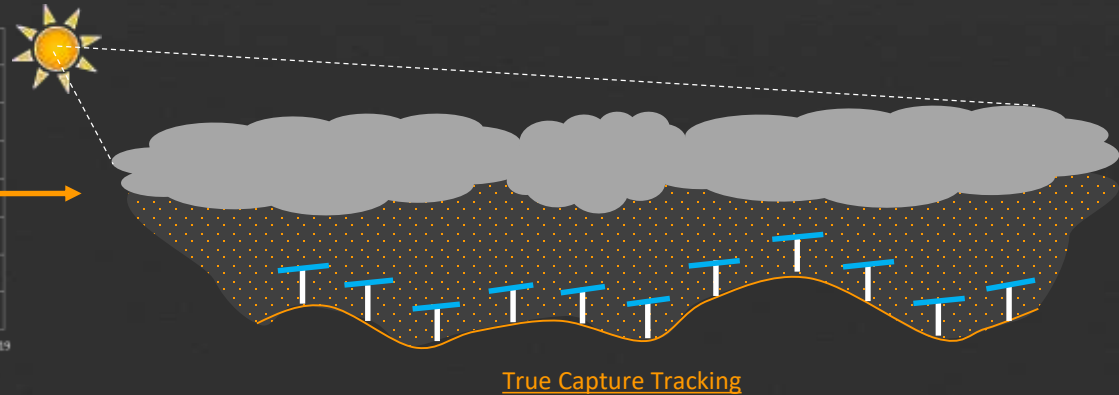
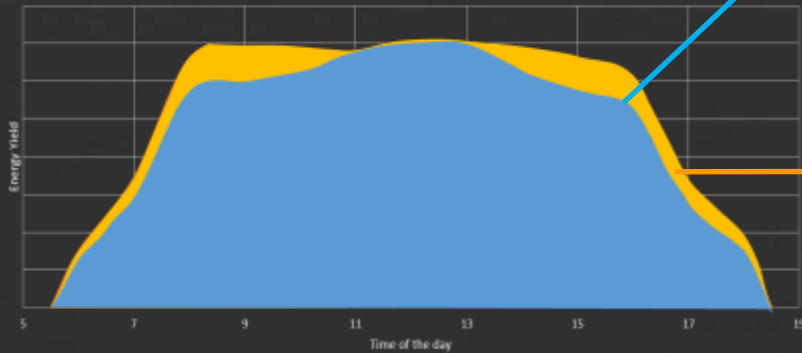


TRUE CAPTURE™: DIFFUSE LIGHT TRACKING

- Optimizes between Direct (DNI) and Diffuse (DHI) to maximize kwh
- Increases PV panel view angle when cloudy
- Annual energy yield increases by 0.5% to 2%



NX Yield Benefit on cloudy days



TrueCapture™ in action



TrueCapture: Alabama 115MW 4.7 %

NX HORIZON™ Operations & Maintenance

Maintenance Items Required

As Needed

- ✓ Maintain any vegetation growth over 12" in height.

Note: Vegetation management and cleaning is not tracker-specific and will vary depending on time of year, environment, and geographical factors at the site.

- ✓ Remove dust, dirt, debris etc. that affects solar modules' glass transparency.
- ✓ Update firmware if needed – Remotely by Nextracker

Unblocked Rows Boost O&M Efficiency

Unimpeded rows for service vehicles
Face to face module for easier and faster cleaning, less risk
of damage to panels



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THANK YOU

