



## **ACHIEVEMENTS**

Over 17 Years

Experience

40 COUNTRIES

Across 5 continents

7 GW+

GLOBAL INSTALLATIONS

Offices & Branches

Spain / France / UAE / United States / Mexico / Brazil / Chile / Australia / China

Production centers

Spain / Brazil / Argentina / China



# STATE-OF-THE-ART TRACKER DESIGN ADAPTED TO ANY CONDITIONS





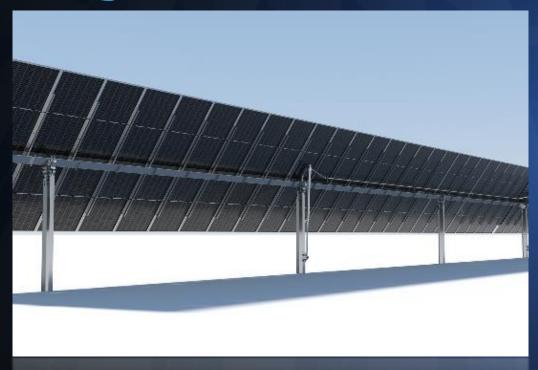
## **PORTFOLIO**

Vanguard™

Single row 2P



Dual row 1P





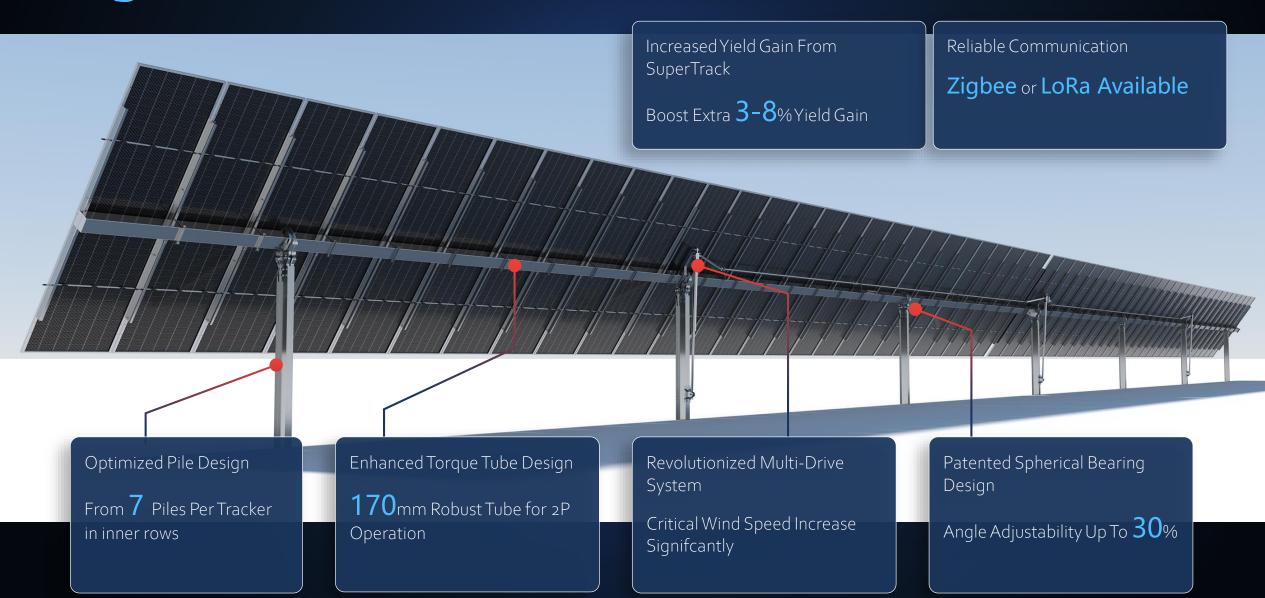






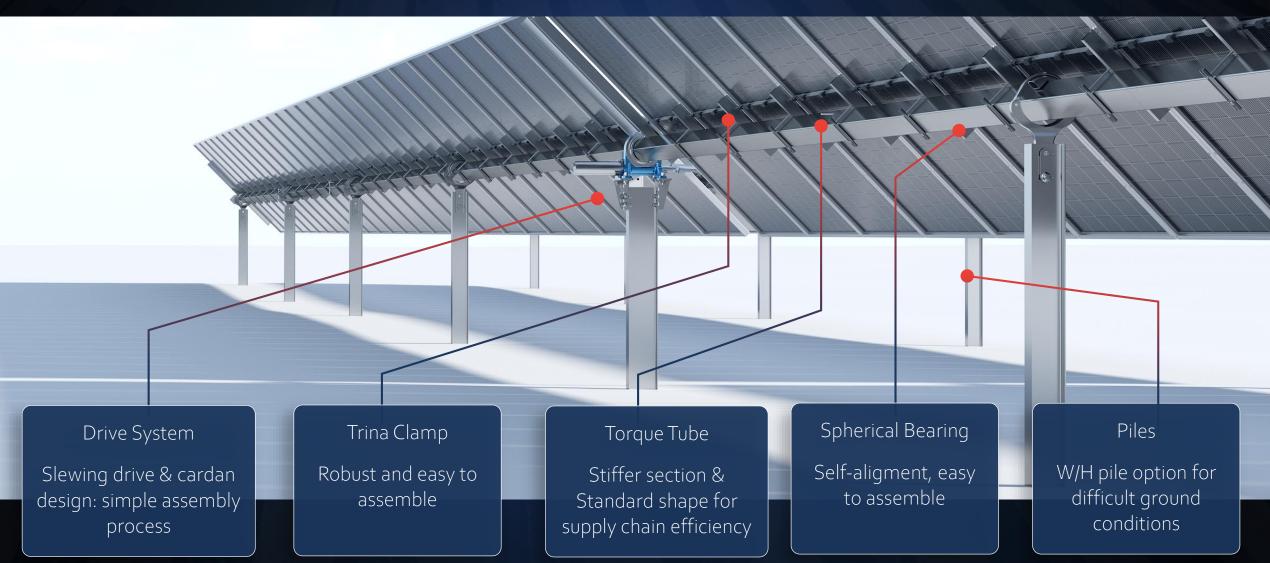
## **Trina**Tracker

# Vanguard<sup>™</sup> 2P Single Row





# Agile<sup>™</sup> 1P Double Row



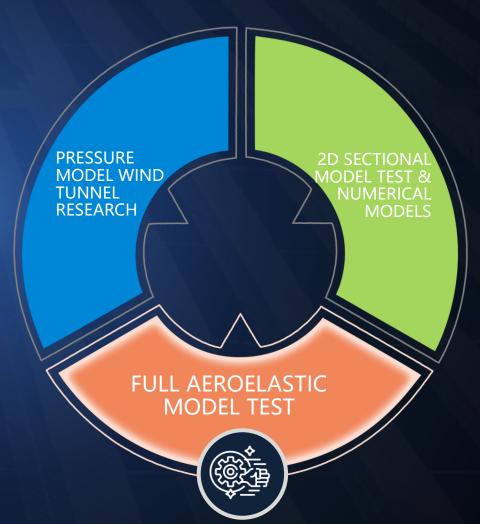


# WIND TUNNEL TEST PERFORM BY THE TWO WIND ENGINEERING CONSULTANCY LEADERS











## LOWERING LCOE, CAPEX AND OPEX

#### TrinaTracker Components

- Optimised Post

  Design
- Optimised
  Purlin Design
  - Stiffer Torque
    Tube
- Wind, Snow & Hai Stow Alarms
- Multi-drive Sistems
- Tailored Tracke
  Layout

# High-tech Software Solutions

#### SuperTrack algorithm



Trina Smart Cloud



# Preventive Operation & Maintenance

#### Components optimization

- 1. No Motors per MWp
- 2. No Actuators per MWp
- 3. No Bearing per MWp
- 4. No TCUs per MWp
- 5. N° Bolted unions per MWp

**Quality control** 











### TRINA IOT LAYOUT

First-class intelligent total solution provider

## Business

#### 1.0 PV Product



#### 2.0 PV System



Development and construction of large power stations



Intelligent distributed energy solutions



Intelligent optimization solution

#### 3.0 Internet Of Things (IOT)





Integrated energy services



Energy storage intelligent solutions

# **Trinal®**T

### TRINA IOT SOLUTION

Intelligent IOT platform. Sharing new momentum of IOT



#### PV power

- ✓ Intelligent cloud
- ✓ Monitor & control
- ✓ Data sharing
- ✓ Smart O&M
- ✓ SCADA system

#### Campus micro-grid

- ✓ Energy monitoring
- ✓ Energy efficiency
- ✓ Equipment maintenance
- ✓ Energy saving analysis

#### Factory digitalization

- ✓ Intelligent power distribution
- ✓ Energy center
- ✓ Production scheduling
- ✓ Operations management
- ✓ Environmental monitoring

#### Intelligent building

- ✓ Energy management
- ✓ Environmental monitoring
- ✓ Intelligent Device
- ✓ Intelligent Control

#### Commercial complex

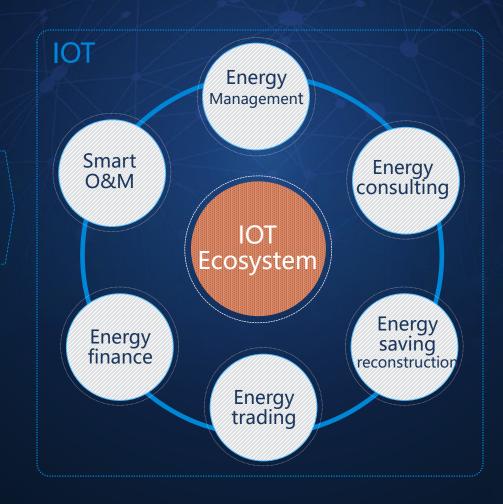
- ✓ Energy consumption management
- Operations management
- Marketing assistant
- ✓ Group management
- Security system



## CREATE IOT ECOSYSTEM, TOWARDS NEW ERA

Intelligent IOT platform. Sharing new momentum of IOT





#### End users

- ✓ Power generation company
- ✓ New energy enterprise
- ✓ Power grid company
- ✓ Sell electricity enterprises
- ✓ Small and medium-sized electricity users
- ✓ Industrial enterprise
- ✓ Public facilities
- ✓ Wisdom city



## WHAT IS Trina Smart Cloud?



An Intelligent tracking solution

Centralized intelligent operation



System Diagnosis

Smart O&M

- ✓ Safer & more reliable with "Active Stow Protection"
- Smart analysis of operating states, pre-warning O&M instructions
- ✓ Fault diagnosis and O&M suggestions in advance
- ✓ Improve O&M efficiency
- ✓ Reduce O&M cost

Online analysis

Remote

Numerical solar tracker solution



- ✓ Data acquisition: Visualization of real-time status and performance
- ✓ Monitor the system availability

Monitoring & Alarm

- ✓ Visualization of alarms & events
- ✓ Real-time rapid data analysis and processing
- ✓ Intelligent and precise control remotely and accurately



## HOW Trina Smart Cloud CAN BENEFIT 0&M?

- 1 Digital intelligent Real-time monitoring
- rapid
  Data online
  analysis

Real-time alarm detailed information

4 Remote precise control & command

#### For operation

# and maintenance staff:

- ✓ Monitors PV plant in realtime and remotely
- ✓ Reduces management costs

#### For operation

#### and maintenance staff:

- ✓ ProvidesO&Msuggestions
- ✓ Improves the reliability of PV power plant

# For operation and maintenance staff:

- Discovers faulty equipment in time
- ✓ Takes effective measures
- ✓ Improves O&M efficiency

# For operation and maintenance staff:

- ✓ Improves O&M efficiency
- ✓ Reduces the total costs

## HOW DOES Trina Smart Cloud REDUCE LCOE?

- ✓ Integrated alarm protection
- ✓ Integrated cleaning robot
- ✓ Integrated smart tracking algorithm
- ✓ PR diagnosis & analysis
- ✓ Quick trouble shooting
- ✓ Quick remote commissioning
- ✓ Package offer, fast site deployment

- Improves O&M efficiency reduces O&M cost & time

User-friendly software, easy to integrate into other platforms Easy Hardware & Software

O&M Saving

Reducing LCOE



- ✓ Provides data package API
- ✓ Highly visualized Human Machine Interface
- ✓ Mature customized configuration







## WHY DOES Trina Smart Cloud DRIVE SMART O&M?







# Trina Smart Cloud: INTELLIGENT, EFFICIENT, RELIABLE & SAFE

For the whole solar power plants: Remote and advanced monitoring and control system

Its centralized intelligent algorithm that drives intelligent O&M tracking





It increases performance and productivity with the power of the comprehensive and reliable data

Weather Data

NCU

TCU

Inverter

Transformer

PV string

It enables reliable and precise operation across a wide range of weather conditions





Safe



It provides full diagnosis and O&M suggestions in advance to ensure stable operation of whole PV station



# THANK YOU!

Please feel free to contact us at <a href="mailto:info.trinatracker@trinasolar.com">info.trinatracker@trinasolar.com</a>