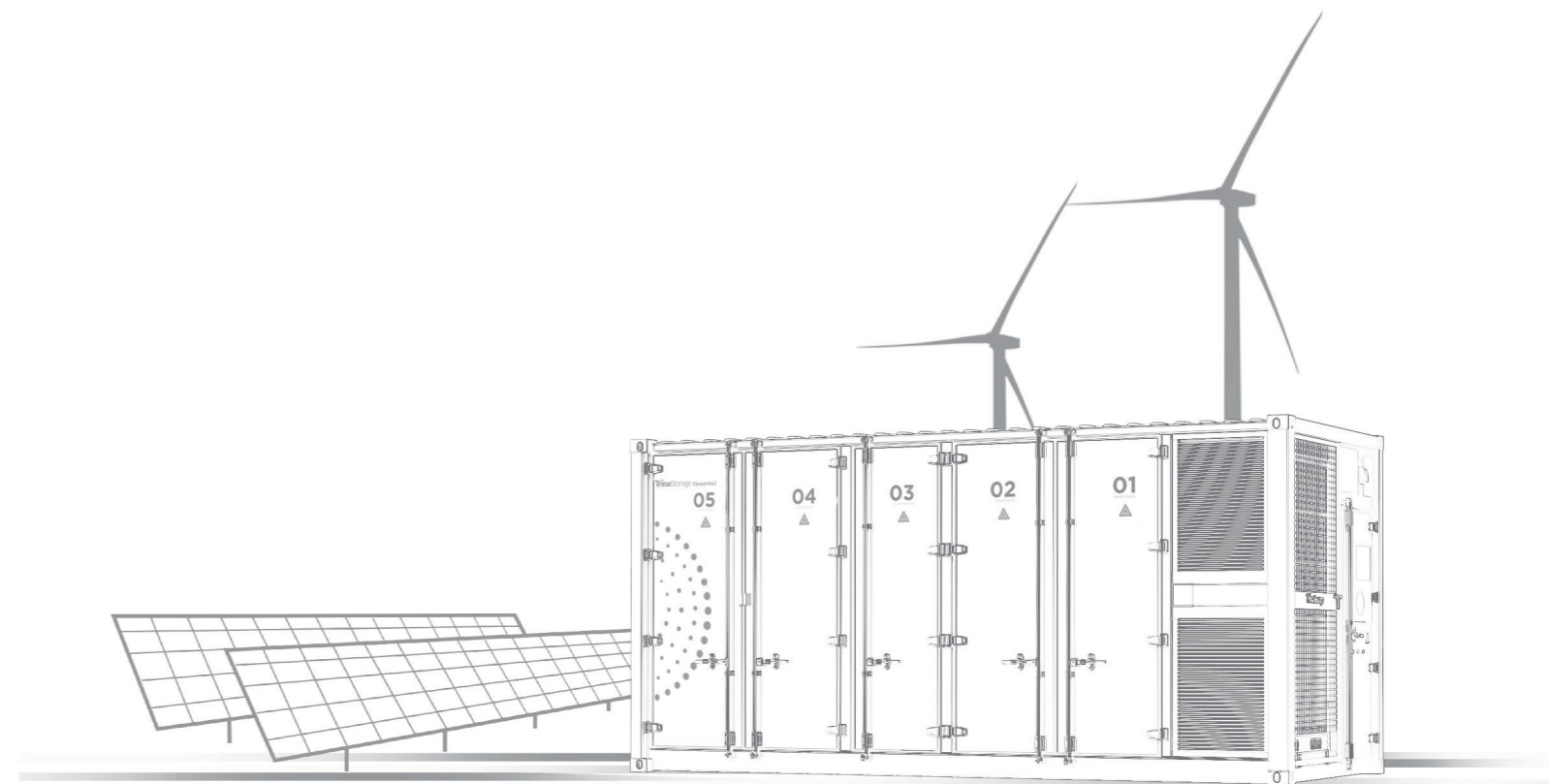


Disclaimer:
This Brochure should be as comprehensive and detailed as possible based on existing information.
The Company reserves the right to modify the data, parameters, and other information in this Brochure.
The right of final interpretation shall belong to Jiangsu TrinaStorage Co., Ltd.



Storage Business Introduction

Lead the renewable energy transition
through storage.



Jiangsu TrinaStorage Co., Ltd.
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Email: trinastoragecn@trinasolar.com
Website: www.trinasolar.com



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About Trinasolar

Group Profile

Founded in 1997, Trina Solar Co., Ltd. (stock symbol: Trinasolar; stock code: 688599) is mainly engaged in PV products, energy storage, system solutions and digital energy service. On June 10, 2020, Trinasolar was listed on the Science and Technology Innovation Board (STAR Market) of the Shanghai Stock Exchange (SSE). It is the first PV and energy storage company that has gone public on the STAR Market providing PV products, energy storage, system solutions and digital energy service. In 2025, Trinasolar is undergoing a strategic transformation toward integrated solutions. Focused on customers and guided by scenarios, Trinasolar is integrating full value-chain capabilities and embedding digital and AI technologies, to serve various application scenarios, including distributed, centralized, and emerging energy application cases. By enhancing coordination across generation, grid, load, and storage, the company offers highly targeted, differentiated solutions that seamlessly integrate products, solutions, services, and financing. We are committed to leading the way in smart PV and energy storage solutions and facilitating the transformation of new power systems for a net-zero future.

Four major businesses: 1) PV Products: R&D, production and sales of PV modules; 2) Energy Storage: A wide range of energy storage solutions for utility-scale power plants, commercial and industrial applications, and residential use; 3) System Solutions: including trackers, distributed generation systems, centralized power plants, and other related businesses; 4) Digital Energy Service: comprising new energy O&M services, on/off-grid microgrids, solar-storage-charging integration, solar-storage-load coordination, virtual power plants, electricity trading, and other services.

With innovation-driven development as its most important strategy and core driving force, Trinasolar has established a comprehensive and leading science and innovation system. Its State Key Laboratory (SKL) has so far set or broken 32 world records in PV cell conversion efficiency and module output power. Trinasolar ranked among China's Top 500 Enterprises in 2023 and was selected as one of the Top 100 Energy Transition Innovators by Reuters, standing out as the only Chinese company on the list. It was also included in the 2023 Forbes China ESG Innovative Enterprise list. The company has received a 100% financing rating from Bloomberg New Energy Finance (BNEF) multiple times. It has consistently been listed as a BNEF Tier 1 PV module manufacturer and has topped the Tier 1 energy storage manufacturer list for six consecutive quarters since its launch in January 2024. Trinasolar has also been featured in the Fortune China 500, Forbes Global 2000, Forbes China's Top 50 Most Innovative Companies, Forbes China's Top 50 Globalized Enterprises, and Fortune China's Top 500 Listed Companies. It is the only Chinese company named in Reuters' Global Top 100 Energy Transition Innovators. Trinasolar has published cutting-edge research in sub-journals of Nature, and its core products in modules, energy storage systems, and trackers have obtained Environmental Product Declarations and carbon footprint certifications. The company has received multiple Gold Awards in global Corporate Social Responsibility (CSR) assessments and has won numerous international design awards, including the Red Dot Design Award, IDEA, German Design Award, and G-Mark.

Globalization is regarded as Trinasolar's main corporate strategy. Trinasolar began to build up its global presence from its inception. The Company was founded in Changzhou, Jiangsu Province, China, where its global headquarters is based. In 2022, Trinasolar established its international headquarters in Shanghai. It actively strengthened the building of global teams. In recent years, the Company has recruited international high-level management and R&D talents from more than seventy countries. It has set up regional headquarters in Zurich (Switzerland), Silicon Valley and Miami (USA), Singapore, and Dubai (UAE), offices or branches in Madrid, Mexico, Sydney, Rome, etc., as well as manufacturing bases in Indonesia and UAE, exploring a new model for globalization and promoting localization operation for the cooperation partner in U.S., with operations in more than 180 countries around the world. By the end of 2024, its cumulative shipments of PV modules had exceeded 260GW, which is close to the installed capacity of 12 Three Gorges Dam power stations and equivalent to the carbon reduction effect of planting 19.1 billion trees worldwide. The total shipments of 210mm modules have consistently ranked first globally.



NO.1
210mm module
global shipments



No.1
Perovskite solar cell
patent applications



180+
Countries



70 Countries
Global employees



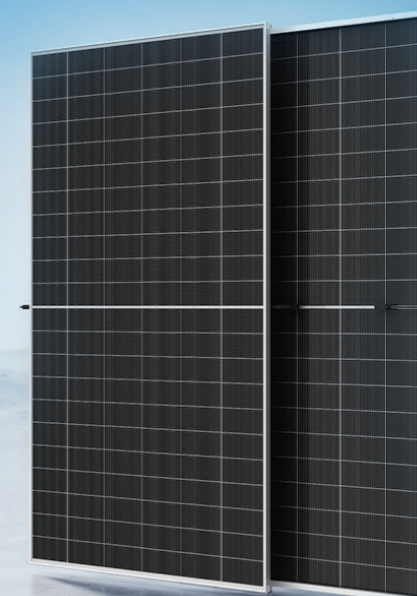
7
Global and
regional headquarters

Leading PV & Storage Products

• Energy Storage



• PV Modules



• Trackers



Comprehensive Smart Energy Solutions for Solar+Storage

• Utility-scale Power
Plant Solutions



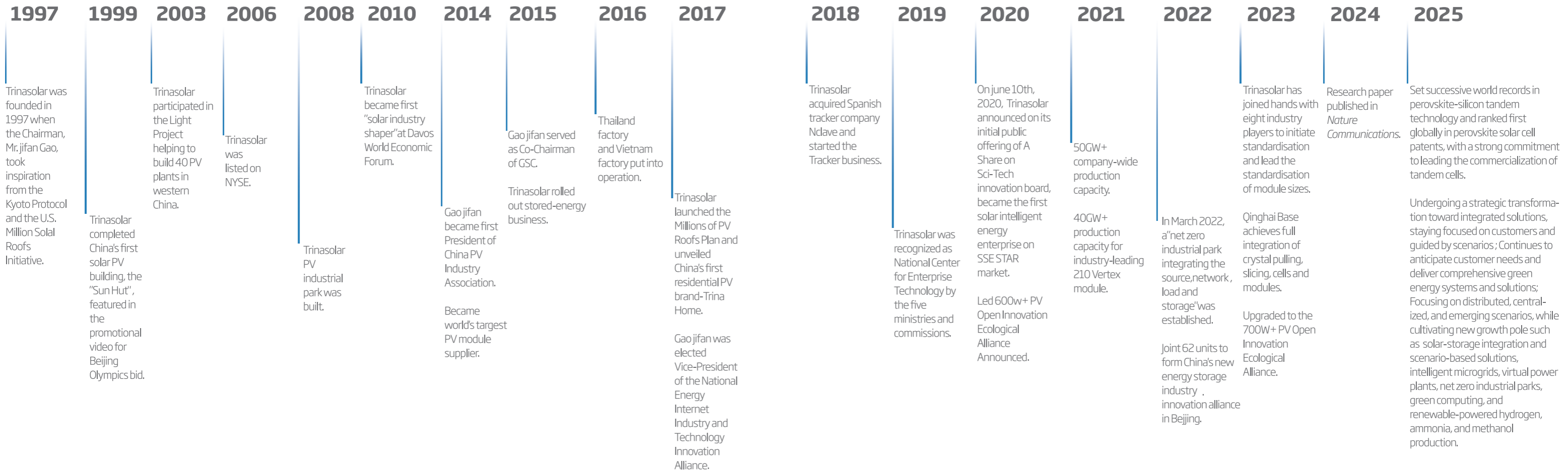
• Trina Power Distributed
Generation Solutions



• New Application
Scenario Solutions



About Trinasolar



About Trinasolar

Financial Soundness



2024
Operating income

RMB **80.282** billion



2024
Total Assets

RMB **123.935** billion



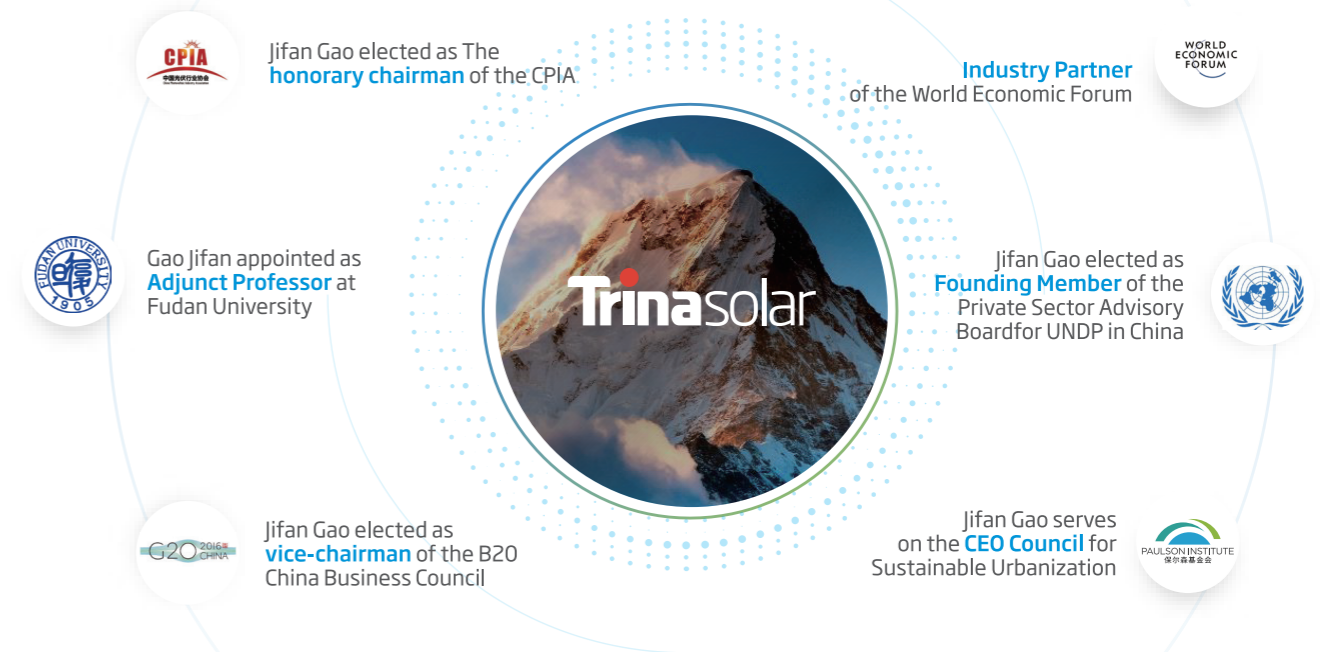
2024
Total Module Shipments

210mm module **170**^{NO.1 Globally}GW+
Tracker **27**GW+
Storage **10**GW+

Brand Reputation



Industry Leadership

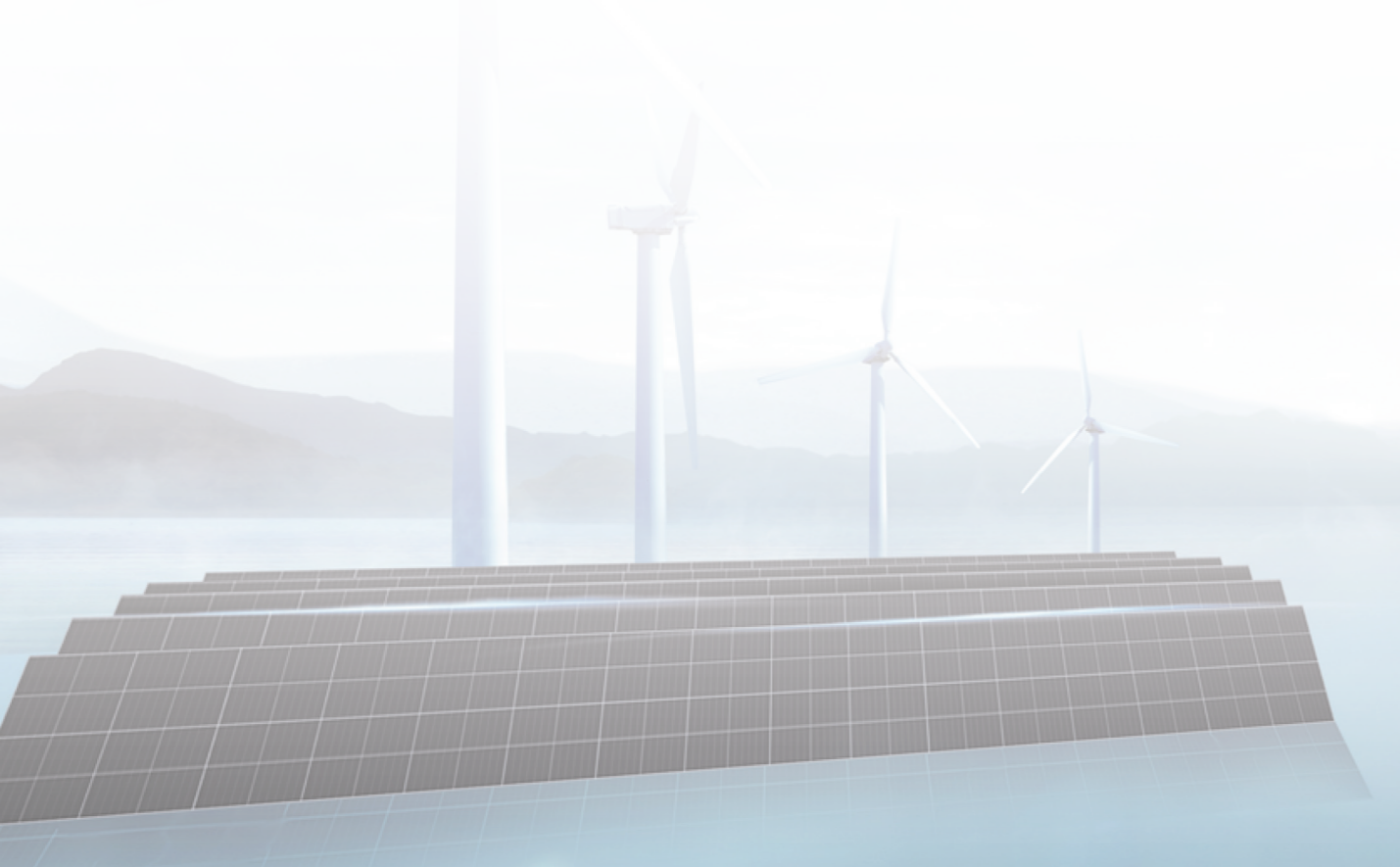


Trina Storage Introduction

Trina Storage Introduction

Trina Storage, a business unit of Trinasolar, stands as a global leader in energy storage products and solutions, committed to reshaping the energy landscape. We are dedicated to Lead the way in all-round smart solar energy solutions driven by customer and scenario needs, and facilitating the transformation of new power systems for a net-zero future. As a vertically integrated battery technology provider, we take pride in our comprehensive capabilities, covering battery cell research & development (R&D), manufacturing, and seamless integration.

Our diverse portfolio spans energy storage batteries, battery energy storage cabinets, energy storage converters, residential energy storage solutions, and integrated intelligent energy management systems. Our primary focus centers on utility-scale projects, specifically in solar and storage, as well as standalone application scenarios. We offer a robust, end-to-end solution that is highly bankable, cost-effective, safe, and reliable.

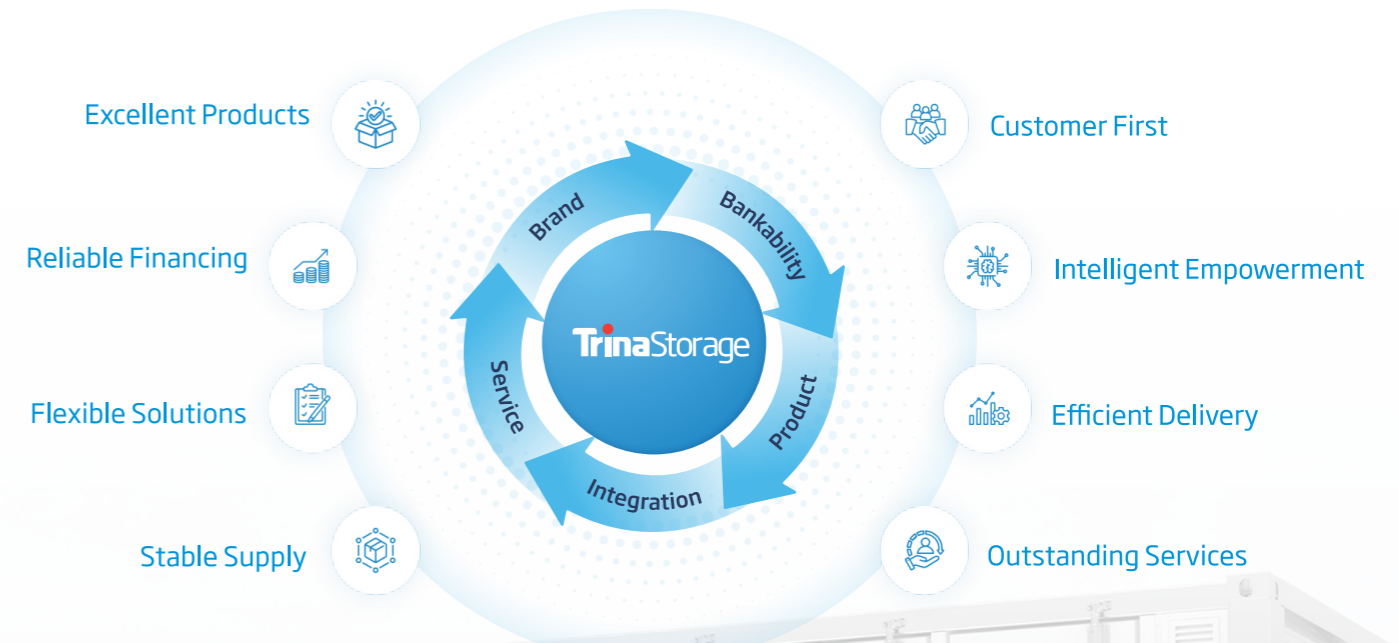


Brand Positioning



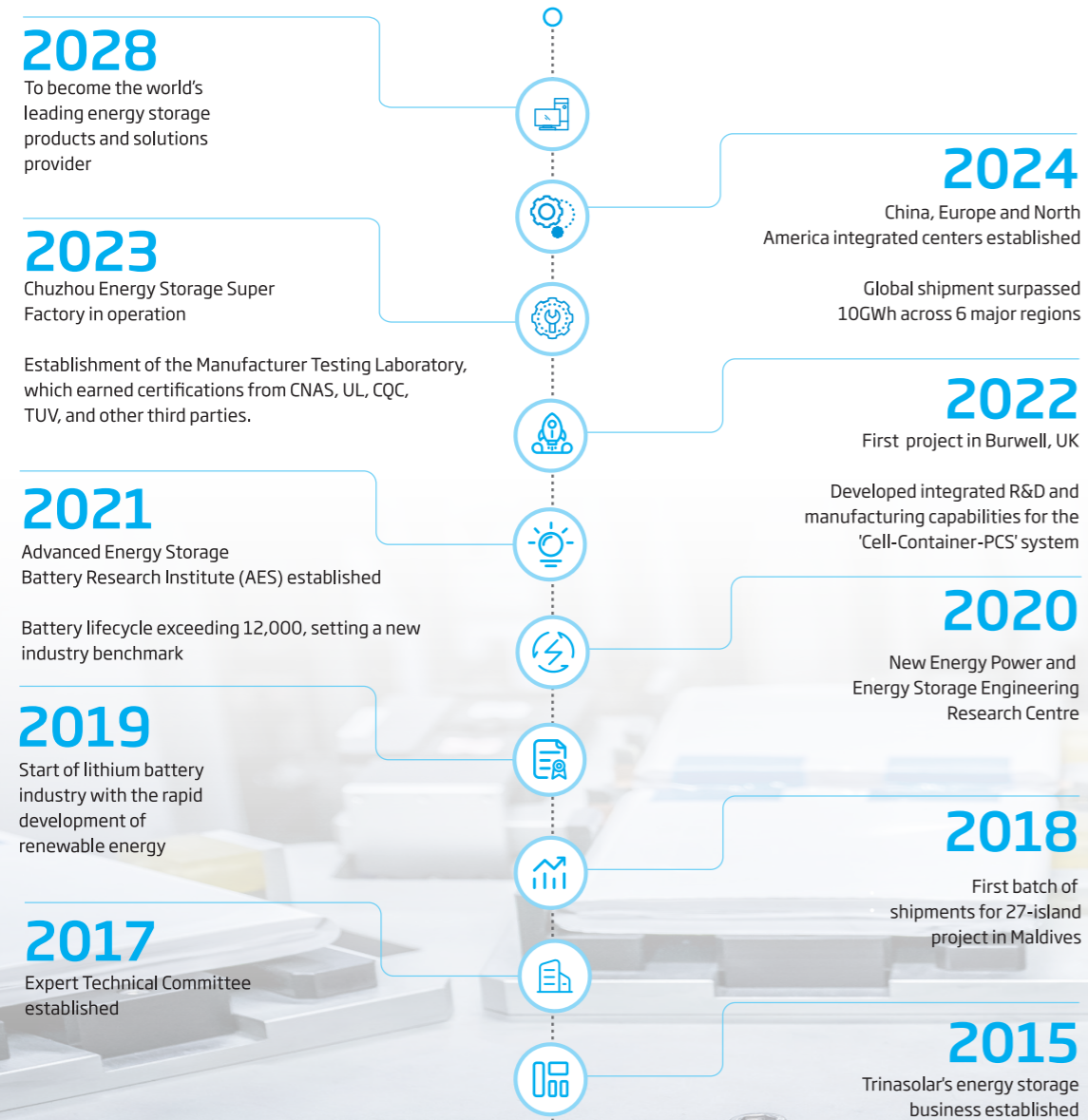
Lead the renewable energy transition through storage.

Value Proposition and Advantages



Trina Storage Introduction

Milestones



Brand influence

Global Shipment
10GWh+
By the End of 2024



Trina Storage Introduction

Global Business Layout



Global Partners



Trina Storage Introduction

Layout of In-house Industry Chain



Intelligent Manufacturing

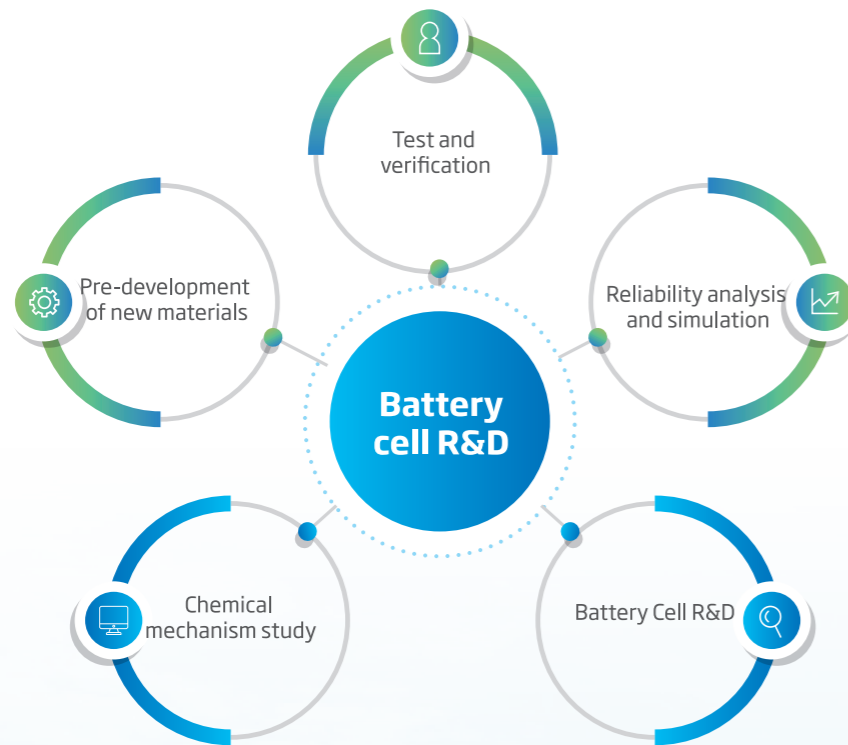


Quality Assurance-function Module



Trina Storage Introduction

Energy Storage R&D Innovation



R&D Platform

The Advanced Energy Storage Cell Research Institute was established

Advanced Energy Storage Product Research Institute

System Integration Engineering Center

Power Electronics Research Institute

Cell Digital Center



R&D Personnel
500+

Granted Patents
550+

Patent Applications
1400+

Test Equipment
800+

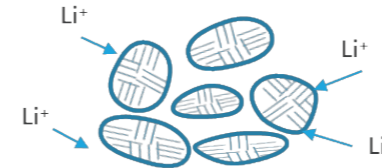
Test Channels
12000+

Imported High-precision Testing Instruments
100+

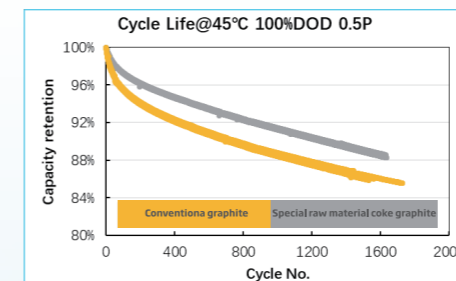
Advantages: Ultra-long Cycle Life

Self-developed special energy storage cell with high cycle life

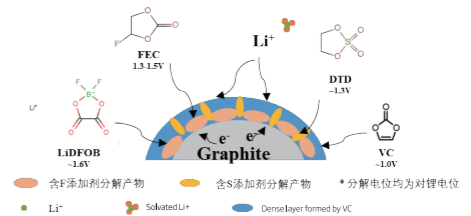
Long-life graphite



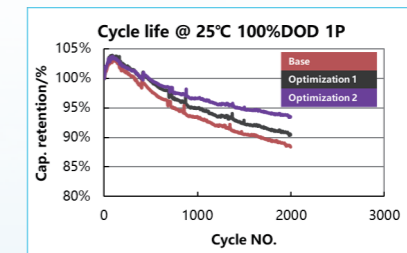
- Special raw material coke structure with low expansion single particle graphite is used to improve the structural stability



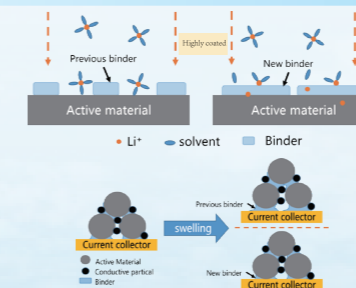
High-stability SEI film formation



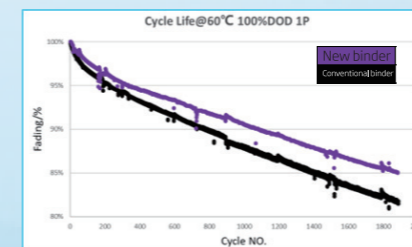
- Multiple additives coordinate the construction of layered SEI film to achieve the balance of thermal and mechanical stability and high conductivity
- Fine control of the film forming environment to achieve low initial impedance and long battery life



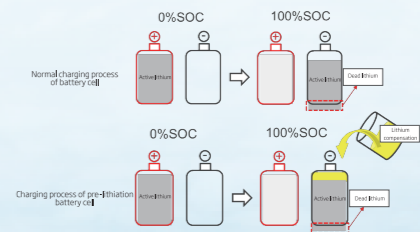
Polar structure engineering technology



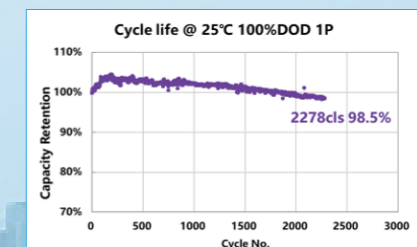
- Reduce the active surface of graphite and slow down the side reaction consumption of electrolyte and active material
- The polar structure becomes more stable during the cycling process



Pre-lithiation Technology



- Pre-lithiation, compensating for the loss of active lithium during charging and discharging



Trina Storage Introduction

Integration Capabilities and Global Layout



Comprehensive Solutions

Flexible system solutions for varied market needs

End-to-End Integration

Integrated testing All-climate verification

Efficient Delivery

Standardized & safe delivery Intelligent O&M

The joint-deployment of Integrated centers across China, Europe, and North America streamlines end-to-end delivery capabilities

On-site Construction Time Reduced by

20%+

Professional Expertise

Diverse Solutions

Delivery Cycle Shortened

Pre-factory integration

Safety and Stability

Pre-testing validation

Unified Rapid Response

Localized after-sales service

Simplified On-Site Construction

Standardized and modularized

Global Localized Service System

230
Dedicated Energy Storage Engineers



23
Global Service Centers



Technical Calling Center



On-site Service



Maintenance Center

"Closed-loop" Localized Services



CRM Warranty Management

Professional Training & Service Teams: Ensuring consistent, high-quality service across all regions.



Project Management

Safety First: Prioritizing attention to detail and stringent process protections.



Training Center

Global Reach, Local Expertise: Providing efficient, tailored support worldwide.



Energy Storage Products

Product List

Batteries

Battery Cell for Energy Storage



Energy Storage Products

Utility-scale energy storage battery container

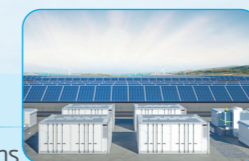


System & Optimization

BMS



Customized Solutions



Smart O&M



Energy Storage Products

With more than 20 years of experience and resource accumulation in the field of new energy, TrinaStorage has always been customer-oriented, and continuously provide safe, reliable, efficient, ultra-long life, and intelligent energy storage products and system solutions for every customer by relying on technological innovation and the PV and energy storage technology R&D platform of the headquarters.

Energy Storage Trina Storage Elementa 2

Flexible DC Cabinet



High-Efficiency ESS

- In-house Trina Storage Cells: Extended battery lifetime & performance with up to 12000 cycles; 0 degradation in the first year & ≥ 95% Energy Efficiency (for 4MWh)
- Upgraded Module Design: Featuring independent O&M window & two-way stop valve; Intelligent liquid cooling technology - maintains $\Delta T \leq 2.5^\circ\text{C}$
- Higher ROI & Cost-advantages: Reduced CAPEX & OPEX; Improved TCO & Lower LCOS
Higher Energy Density packed into the same form factor (for 5 MWh)

Intelligence

- Advanced rack-level energy management; precise control & optimization
- Uniformity in battery SOC, preventing electrical imbalances, extending battery life & performance
- Multi-level BMS, equipped with advanced chip for high reliability; Grade-by-grade warning, effective isolation & protection
- Smart O&M - Designed for minimal downtime and simplified maintenance

Highly Integrated & Flexible Solution

- Compact design ensures up to 35% reduction in footprint
- Built for a standard 20ft HC container, reducing shipping costs, facilitating quick transportation & rapid deployment
- Flexible string PCS & DC/DC configurations (optional)
- Bankable warranties, guarantees & services
- Higher performance: Better compatibility with multiple PCS (for 5MWh)

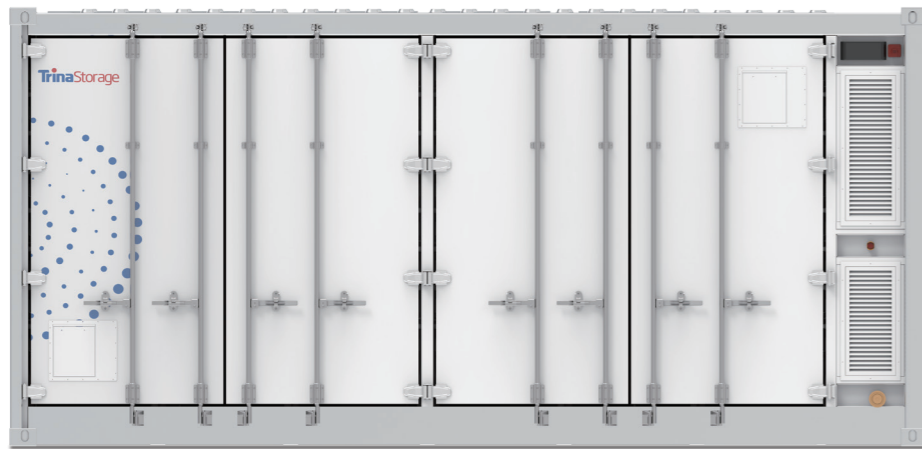
Comprehensive Safety

- Prioritizes product & personnel safety
- Multi-dimensional cell testing; targeted design; higher precision in fault detection
- Heat, Gas & Smoke detectors, active ventilation system & explosion prevention
- Implements a state-of-the-art aerosol-based FSS
- All international safety standards & certifications conformed

Product Model		
Battery parameters	Elementa 2 4.073MWh	Elementa 2 5.015MWh
Battery Cell	LFP 3.2V/306Ah	LFP 3.2V/314Ah
Electrical Configuration	1P416S10P (10 racks of 4 battery modules each)	1P416S12P (12 racks of 4 battery modules each)
Nominal Capacity	4073kWh	5015kWh
Typical Operational Duration	2-4 hours	2-4 hours
Max Operating Voltage Range (DC)	1123.2V~1497.6V	1123.2V~1497.6V
System parameters		
Dimensions (LxWxH)	6058mm*2438mm*2896mm (Standard 20ft High Cube Container)	6058mm*2438mm*2896mm (Standard 20ft High Cube Container)
Weight	35±0.7T	42.5 ± 1.5T
IP Level	IP55-Excl.TMS (Temperature Management System) IP67 - Module	IP55-Excl.TMS (Temperature Management System) IP67 - Module
Cooling Mode	Liquid cooling,50% ethylene glycol aqueous solution	Liquid cooling,50% ethylene glycol aqueous solution
Altitude	≤2000m	≤2000m
Operating Ambient Temperature	-30~50 °C	-30~50 °C
Fire Safety	Fire panel with heat and smoke sensors Fire resistant enclosure Gas sensor and active ventilation system (NFPA69) Active Ventilation System with Hydrogen Gas Sensor(Carbon Monoxide Sensor Optional) Automatic aerosol-based fire suppression system, Water based fire suppression system (optional)	Fire panel with heat and smoke sensors Fire resistant enclosure Gas sensor and active ventilation system (NFPA69) Active Ventilation System with Hydrogen Gas Sensor(Carbon Monoxide Sensor Optional) Automatic aerosol-based fire suppression system, Water based fire suppression system (optional)
Coating	C4 (C5 Optional)	C4-H(C5-H Optional)
Color	RAL9018	RAL9018
Communication Protocols	CAN/Modbus TCP	CAN/Modbus TCP
Compliance	IEC61000-6-2/4 IEC62619 UL 9540 CE IEC62933-5-2 IEC63056 UL 1973 UN38.3 IEC62477-1 UL 9540A	IEC61000-6-2/4 IEC62619 UL 9540 CE IEC62933-5-2 IEC63056 UL 1973 UN38.3 IEC62477-1 UL 9540A

Energy Storage Trina Storage Elementa 2 Pro

Ultra-High Efficiency DC Cabinet



Enhanced Efficiency

- Ultra-long life cycle and high-performance 314Ah cell, delivering up to 15,000 cycles with zero degradation in the first year
- Flexible installation options, supporting side-by-side and back-to-back layouts, increasing site energy density by 12%
- Advanced intelligent temperature control, maintaining cell ΔT within $\leq 2.5^{\circ}\text{C}$ using hybrid air-liquid cooling technology, reducing average auxiliary power consumption by 30% in low-temperature conditions

Intelligent Design

- 1:1 Negative Temperature Coefficient (NTC) monitoring with millisecond-level response can ensure early warning and effective protection
- Supporting master-slave architecture, enhancing system performance for multi-cabinet parallel configuration
- One-click upgrades and real-time monitoring improve O&M efficiency

Comprehensive Safety

- EV-grade battery cells undergo rigorous abuse testing to ensure intrinsic safety
- Electrical protection with an emergency stop button, enabling multi-layered safety linkage across the cabinet, PCS, and EMS
- Multi zone monitoring enables precise measurement of internal temperatures, achieving accurate thermal management and protection
- Sandwich-type composite wall and multi-detector design, compliant with NFPA 855, 68, and 69 standards

Improved Flexibility

- High-temperature refrigerant technology ensures full power output even at temperatures exceeding 50°C
- Noise level as low as 70dB, improving suitability for sites under strict noise limitation with a 12.5% reduction compared to industry benchmarks
- IP67-rated modules and an IP55-rated cabinet with C5-level anti-corrosion coating and IEEE693 high level seismic standards, ensuring durability in diverse and challenging environments

Product Model	
Battery Parameters	
Cell Type	3.2V, 314Ah
Battery Configuration	416S12P
Nominal Capacity	5015kWh
Typical Operational Duration	2-8hours
Nominal Voltage Range	1123.2V-1497.6V
System Parameters	
Dimensions (W*H*D)	6058*2896*2438mm (Standard 20ft High Cube Container)
Weight	40.5T
Degree of Protection	IP55-Container IP67-Module
Operating Ambient Temperature	-30°C - 55°C ($> 50^{\circ}\text{C}$ Derating)
Altitude	$\leq 4000\text{m}$
Operation Humidity Range	0-100% (Non-condensing)
Cooling Mode	Liquid Cooling
Fire Safety	Dry pipe, heat and smoke sensors, active ventilation system with hydrogen gas sensor (Carbon Monoxide Sensor Optional), automatic aerosol-based fire suppression system, fire resistant enclosure (2h Optional), deflagration panel (Optional)
Anti-corrosion Design	C4 (C5 Optional)
Noise	70dB(25°C) 65dB (Optional)
Communication protocols	CAN/Modbus TCP
Standard	IEC61000-6-2/4, IEC62619, IEC62477-1, IEC62933-5-2, UL1973, UL9540, UL9540A, NFPA68&69 (Optional) etc.