

A decorative graphic in the top-left corner consisting of numerous blue dots of varying sizes arranged in a circular pattern.

www.trinasolar.com

Power Beyond Solar

The World Leading PV and Smart Energy IoT
Total Solution Provider



Solar Energy for All



Power Beyond Solar

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Company Profile



Founded in 1997, Trina Solar is the world leading PV and smart energy total solution provider. Its main business scope includes PV Products, System Solutions and Smart Energy IoT.

In 2018, Trina Solar launched Energy IoT brand, established the Trina Energy IoT Industrial development Alliance together with leading enterprises and research institutes in China and around the world, and founded the New Energy IoT Industrial Innovation Center. With these actions, Trina Solar is committed to working with its partners to build the energy IoT ecosystem and develop an innovation platform to explore New Energy IoT, as it strives to be a leader in global smart energy.

In June 2020, Trina Solar listed on the STAR Market of Shanghai Stock Exchange.

In the future, at Trina Solar we will continue to pursue our mission of "solar for all mankind," working tirelessly to build a world-class, industry-leading company covering PV, stored energy, smart hydrogen power and distributed energy, and to construct a new-energy, carbon-free world.



66GW+
Shipments



5GW+
Grid-connected



100+
Regions



14000+
Employees

Milestones

1997

1999

2003

2006

2010

2016

2012

2018

2017

2015

2020

2021

2016

2014

2019

1997

Trina Solar was founded in 1997 when the Chairman, Mr. Jifan Gao, took inspiration from the Kyoto Protocol and the U.S. Million Solar Roofs Initiative.

1999

Completes China's first solar PV building, the "Sun Hut", featured in promotional video for Beijing Olympics bid.

2003

Trina Solar participates in the Light Project helping to build 40 PV plants in western China.

2006

Lists on NYSE.

2008

Builds Trina PV industrial park.

2010

Becomes first "solar industry shaper" at Davos World Economic Forum.

2012

State Key Laboratory of PV Science & Technology establishes in Changzhou headquarters.

2014

Gao Jifan becomes first President of Chairman of China PV Industry Association.

2015

Gao Jifan serves as Co-Chairman of GSC.

Trina Solar stored-energy business rollout

2016

Builds factory in Thailand.

2017

Trina launches the Millions of PV Roofs Plan and unveils China's first residential PV brand-Trina Home.

Gao Jifan is elected Vice-President of the National Energy Internet Industry and Technology Innovation Alliance.

2018

Launches Energy IoT brand-TrinaloT.

Acquires Spanish tracker company Nclave.

2019

Recognized as National Center for Enterprise Technology by the five ministries and commissions.

2020

On June 10th, 2020, Trina Solar announced on its initial public offering of A Share on Sci-Tech innovation board, became the first solar intelligent energy enterprise on SSE STAR market. Launches.

600W+ ultra-high power new modules, setting benchmark for PV 6.0 era.

2021

50GW+ company-wide production capacity.

40GW+ production capacity for industry-leading 210 Vertex module.



GLOBALIZATION

Globalization is one of Trina Solar's strategic aims. Our global rollout has been underway for many years, during which we actively stepped up the development of our global talent teams, and in recent years we have brought in an international senior management team and R&D talent from over 30 countries and regions. The company has set up regional headquarters in Switzerland, the United States, Japan, Singapore and the United Arab Emirates, as well as offices and branches in Germany, Italy, Spain, Mexico, Brazil, South Africa, Australia, South Korea and India, and production and manufacturing bases in Thailand and Vietnam. Our operations now span over 100 countries and regions worldwide.

Corporate & Regional Headquarters

- Changzhou, China
- Miami, USA
- Fremont, USA
- Dubai, Uae
- Switzerland
- Japan
- Singapore

Global Sales & Service Centers

- Beijing, China
- Shanghai, China
- ABU Dhabi, Uae
- India
- South Korea
- South Africa
- Germany
- Britain
- Spain
- Italy
- Mexico
- Colombia
- Brazil
- Chile
- Turkey

Production Bases

- China (Changzhou, Yancheng, Suqian, Yiwu)
- Thailand
- Vietnam

Financial Soundness




Operating Income

USD 4.26 bn 

YoY growth
26.14%

Net Income Attributable to the Parent

USD 0.18 bn 

YoY growth
91.90%

Total Assets

USD 6.99 bn 

Up from last year-end
25.66%

Total Module Shipments

15.915GW+ 

YoY growth
58.85%

As of December 31 2020



Brand Reputation

Trina Solar consistently adheres to six key strategies: innovation, branding, globalization, platform development, smart technologies, and synergy between the financial and industrial sectors. The company is driving industry growth in terms of standards of innovation, economic returns, product quality and environmental safety. Thanks to its outstanding technical innovation capabilities, the unparalleled extent of its global expansion, and its contribution to the healthy development of the industry, Trina has built a peerless brand reputation and collected numerous domestic and international awards.



Innovation Platform

Innovation will drive PV price parity, and it is one of Trina Solar's core growth strategies. We are home to one of the first batch of State Key Laboratories for PV Science & Technology to be approved by the Ministry of Science & Technology; we have a New Energy IoT Industry Innovation Center—an open innovation platform for research in the new energy IoT field; and we are accredited as a National Enterprise Technology Center by the National Development and Reform Commission and four other ministries and commissions. Collectively known as the “lab and two centers,” these innovation platforms are a source of constant new breakthroughs that drive the company's innovative growth.

In 2019, Trina Solar was awarded two prestigious state-level accreditations: as a National Enterprise Technology Center and a National Model Enterprise for Intellectual Property. In December 2020, Trina was approved by the Ministry of Industry and Information Technology as a National Model Enterprise for Technological Innovation, the only PV company among that batch of recipients. In March 2021, Trina ranked fifth in the 2020 Top 100 Innovative Enterprises in Jiangsu Province, published by the Jiangsu Province Science and Technology Development Strategies Research Institute.

R & D Strength

Backed by our “lab and two centers” (Key Laboratory for PV Science & Technology, National Enterprise Technology Center and New Energy IoT Industry Innovation Center), we have increased our R&D investment and established a high-efficiency, high-yield R&D innovation management model. With a strong focus on our “come in as Trina goes out” initiative to attract inward global talent as the company goes out into the world, we have adopted a model of open collaboration to establish partnerships with outstanding companies, universities and research institutes in China and overseas, drawing on the strengths of each party to jointly achieve technological breakthroughs for the industry. Trina has taken on and participated in over 60 projects including the national 863 Program, 973 Program, the national Key R&D Program and the provincial Application of Science and Technology Research Results initiative. The company has set or broken over 20 world records for cell conversion efficiency and module output.


As of December 31, 2020, Trina Solar held 888 patents, including 313 invention patents, far more than any of our PV industry peers. We also led the first wave of Chinese PV companies to participate in the drafting of national standards, which marked out Trina Solar as a leading innovator and standard drafter in the global solar industry.






Formulation of Standards

-  Industry standards led on or participated in **105**
-  Standards issued **92**
-  First to propose and publish **IEC international standards**

Laboratory Accreditations

-  World's first **TÜV Rheinland IEC certified witness test laboratory**
-  World's first U.S.-accredited **UL 61730 witness test laboratory**

R&D Results

-  Number of patent applications **2000+**
-  Proportion of invention patents **50%+**
-  Cumulative R&D investment **USD 1.5 bn+** (2011-2020)

As of December 31 2020

New Leading Technology



210 Vertex UHP modules



210mm silicon wafer



Multi-busbar (MBB)



Innovative arrangement and nondestructive cutting mode



High-density packing



N-type i-TOPCon large-scale mass production



New world record for Frontside efficiency **24.58%**



National Key R&D Programme projects



20+ patents granted



Advanced HJT technology reserves



Actual efficiency of HJT cells in mass production **24.6% or above**



Working on **863 national projects**



Patents applied for **23+**



TÜV certification of HJT products awarded in first half of 2021

As of December 31 2020

2011-2020
World records

for PV cell efficiency & module output



Our Business



PV Productse

Vertex 210
Ultra-High-Power Modules
TrinaTracker



System Solutionse

Utility projects
Distributed PV systems



Smart Energy

Energy storage system
Energy IoT

Vertex 210 Ultra-High-Power Modules



Ultra-high power modules significantly reduce project costs

Trina's Vertex module series, using 210 mm silicon wafers, boasts high power, high efficiency, high reliability and high-power generation. The modules can be used in any setting, such as residential or industrial and commercial rooftops, or large-scale power stations. Whether in terms of the supply chain at the manufacturing end, or inverter and tracker compatibility at the systems end, or even in terms of customer value aspects such as BOS or LCOE performance, Trina's Vertex series of ultra-high-power modules is ahead of the game: the non-destructive cutting + high-density interconnection + MBB(multi-Bus bar) combination forms a high-efficiency, high-reliability foundation, while low voltage and high string power boost single-string power by over 40%. With clear product value and hugely reduced BOS costs, our customers get greater value, and our 600 W+ ultra-high-power modules come with mature technical specifications and industry approval. The production capacity of 210 mm Vertex modules is expected to exceed 40 GW in 2021.

Wide product range for multiple settings

Compared with same-class products on the market
0.01-0.04 USD/W ▼
 Lower system costs

Over 10GW
 Vertex module orders since marketing including large-scale power stations and distribution business all over the world

LCOE 1%-3% ▼
 Lower LCOE



50GW+
 2021 module production capacity



40GW+
 Industry-leading Vertex 210 series



NO.1
 World's largest 210mm module production scale







TrinaTracker




High-reliability tracker system solutions

TrinaTracker is Trina Solar's tracker brand, which offers four key advantages—high reliability, low O&M costs, greater yield and unified module-tracker channels, contributing to the core component of our smart energy integrated solutions. Globally, PV power generation is currently in the final mile towards the grid parity. Our TrinaTracker's Vanguard 600W+ series trackers perfectly match the mainstream 210 ultra-high-power modules up to 600W+ and 550W, massively increasing the energy yield, reducing LCOE and improving the returns of the PV power station. TrinaTracker's global installation has now exceeded 5 GW with production capacity up to 7 GW in 2021.

High Reliability

-  Wind tunnel test accreditation from global bodies
-  Worldwide exclusive patent global axis
-  Latest multidrive technology maintains excellent performance under the highest loads
-  Stringent environmental accreditation

Increase Power Generation

-  Increase Power Generation **3~8%**
Loce Reduced by **2.44%**

Low O&M Cost

-  TrinaTracker - **SCADA** System

Easier Overall Solution

-  **Integration of Modules and Trackers Channel, Products and Services**

Globalization of operations

-  **12+ years** experience
-  **5.5GW+** cumulative deliveries
-  **40 countries** on 5 continents
-  **7GW+** 2021 production capacity

As of December 31 2020

Production Capacity

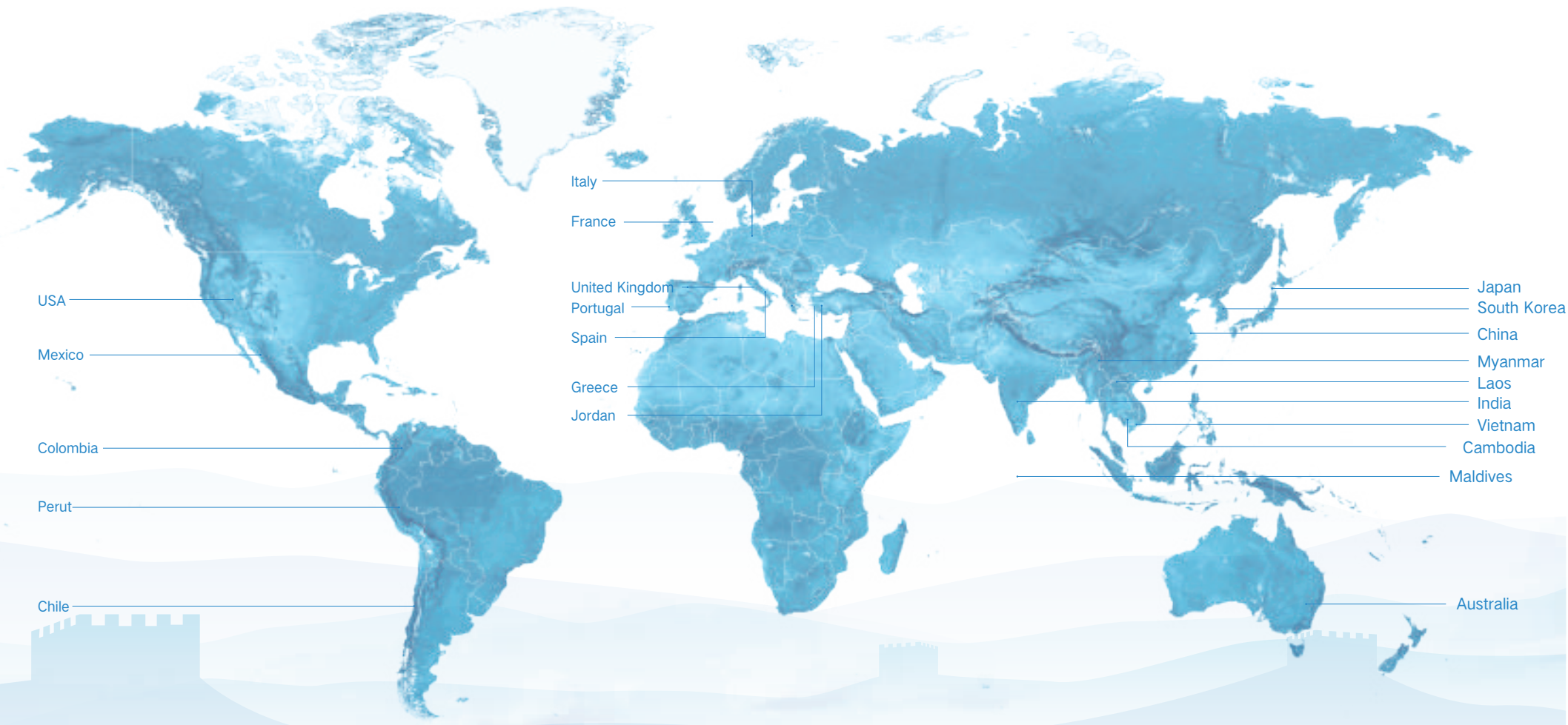
As one of the founders of the 600 W+ Eco-Alliance for Open PV Innovation, Trina Solar stands firmly on the front line of the new PV era. Trina Solar has built three main "210mm ultra-high power module Super-Factories" in Yiwu (Zhejiang province), Suqian and Yancheng (Jiangsu province).



Utility Projects & EPCM

5GW+ 
Connected Projects Worldwide

7GW+ 
Global Pipeline



We have positioned ourselves as a world-leading provider of integrated smart PV energy solutions, and continue to strengthen our business systems, especially core products such as PV cells and modules; we are also furthering the expansion of our integrated solutions toward the whole PV system, in order to provide higher-quality services to end-users. Following two decades of hard work, Trina Solar is now a leading global developer of PV power station projects, offering customers one-stop system-integrated solutions comprising development, financing, design, works and O&M. As of December 2020, the company's global projects had a cumulative on-grid capacity of over 5 GW, with over 7 GW of top-quality project reserves.

One-stop Power Station Solutions



As of December 31 2020

Storage Business



Leading the Energy Transition through Storage

Trina Storage, a business unit of Trina Solar, is a global energy storage solution provider dedicated to enabling governments, corporates, societies, and communities achieve a cleaner, greener and sustainable world. Using a sophisticated and advanced solution platform, Trina Storage is ready to solve today's complex renewable energy integration challenges.

Cloud base
Intelligent Solutions



Why Trina Storage



Industry-leading cost performance

Building on 20+ years of experience in solar, Trina Storage provides fully integrated, safe and scalable energy storage solutions that deliver industry-leading cost-performance.



Global supply chain

Trina's global supply chain makes fast procurement and project deployment simple in over 100 countries. Trina's support teams are experts in system design and component procurement to match local conditions.



Optimized solution

Trina analyses each customer's unique challenges and designs customized solutions that maximize cost-performance, safety and sustainability objectives specific to each project's site-specific requirements.



Bankability

Ranked as the top bankable PV module supplier by BloombergNEF four times in a row (2015-2019), Trina has also made storage system bankability a top corporate priority for maximum project cost-performance.

Our Applications

Solar + Storage



With a 20-year heritage in PV solutions, Trinasolar provides the most efficient and optimal energy storage systems for utility and grid operator customers.

Standalone



High efficiency stand alone utility scale solutions for ultra-fast grid services, T&D deferral and market pooled assets.

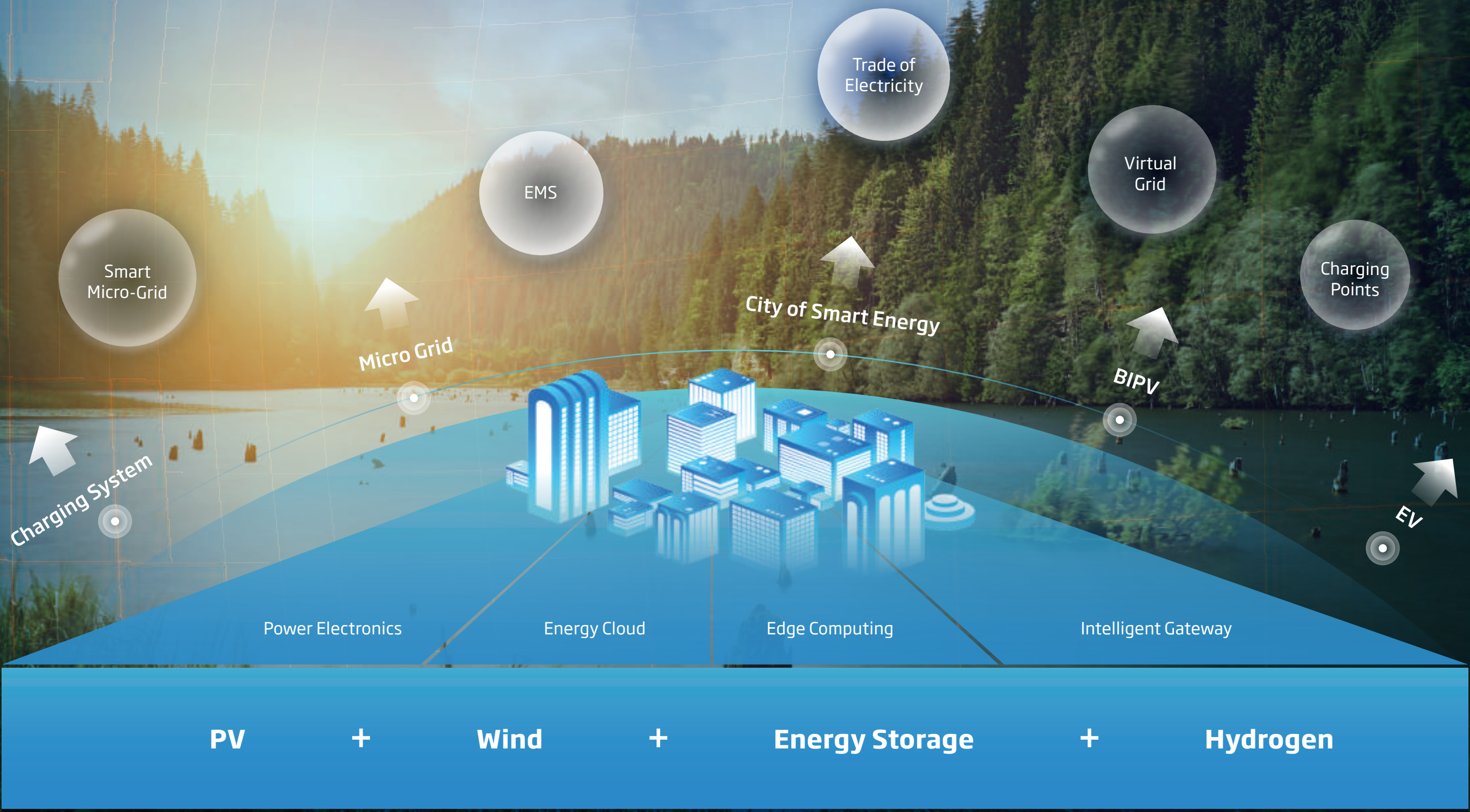
Other applications



large industrial and microgrids

Modular and easy-to-install solution with minimum onsite work. High performance, high availability systems for electricity bill savings and minimum down time for industrial customers; Microgrids for islands.

Building a Carbon-free Energy System



Solar Energy for All

million kWh

8910000

Green power generation

CO2 emissions reduced by

88.83
million tons

SO2 emissions reduced by

2.673
million tons

Smoke emissions reduced by

24.24
million tons

Equivalent to planting

4900
million trees

Biodiversity protection at a solar farm in Dorset, UK

Donating PV modules to the Coral Academy of Science Las Vegas (CASLV)

Donating modules for an aid project in Libya

Haiti-Solar power lights the way

Donating PV modules to Msafiri Primary School in Tanzania

UN Conference on Sustainable Development (Rio de Janeiro, June 2012)

Donating PV modules to an earthquake-hit region in Nepal

Zhenxing international Exchange Scholarship

Siyuan Solar Entrepreneurs Foundation

Potable Water Project in Ya'an

Green Benefits - Mekong-Lancang Cooperation Photovoltaic Off-Grid Power Generation Project



Awarded the EcoVadis Gold CSR award for 2 years running

Social Responsibility

Giving back to society is an unerring theme of Trina Solar's own development and wherever it is in the world, the company fulfill its responsibilities and duties as a corporate citizen. The company was recognized for two years running with the EcoVadis Gold CSR award.

When the Covid-19 pandemic broke out across China in February 2020, Trina Solar leveraged its position as a global business to mobilize resources worldwide and procure medical supplies, which it donated, via the Jiangsu Charity Federation, to medical teams traveling to the epicenter Wuhan from Jiangsu Province, from Huashan Hospital of Fudan University, Shanghai and from the Fifth People's Hospital of Shanghai. Trina also made donations to special Covid hospitals in Nanjing, Changzhou, Yancheng and Suqian. As the situation worsened overseas, Trina Solar donated masks and other supplies to Spain, Japan and the Maldives.



Core Values

Trina People aspire to a mission of "solar for all mankind," which we have distilled into a brand-new set of company core values for the 3.0 era, which we call our CODES: Recognition & Cooperation, Persist in Open Innovation, Persevere through Dedication and Hard work, Strive for Excellence, Share the Responsibility Create and Share Value Together. These are the guidelines all Trina People follow, and the "secret CODE" to our continued development and progress toward the future.



Focus On
The **C**ustomer



Persist In
Open Innovation



Persevere Through
Dedication
And Hard Work



Strive for
Excellence



Share the Responsibility
Create and Share
Value Together

Global Partners



Vertex 210 Ultra-High-Power Modules



Qingtian County, Lishui, Zhejiang Province
400kW Vertex industrial/commercial distributed power project



Yulin, Shaanxi Province
100MW Vertex ground-mounted power station project

Binh Dinh Province, Vietnam
50.6MW Vertex Dam Tra O floating project

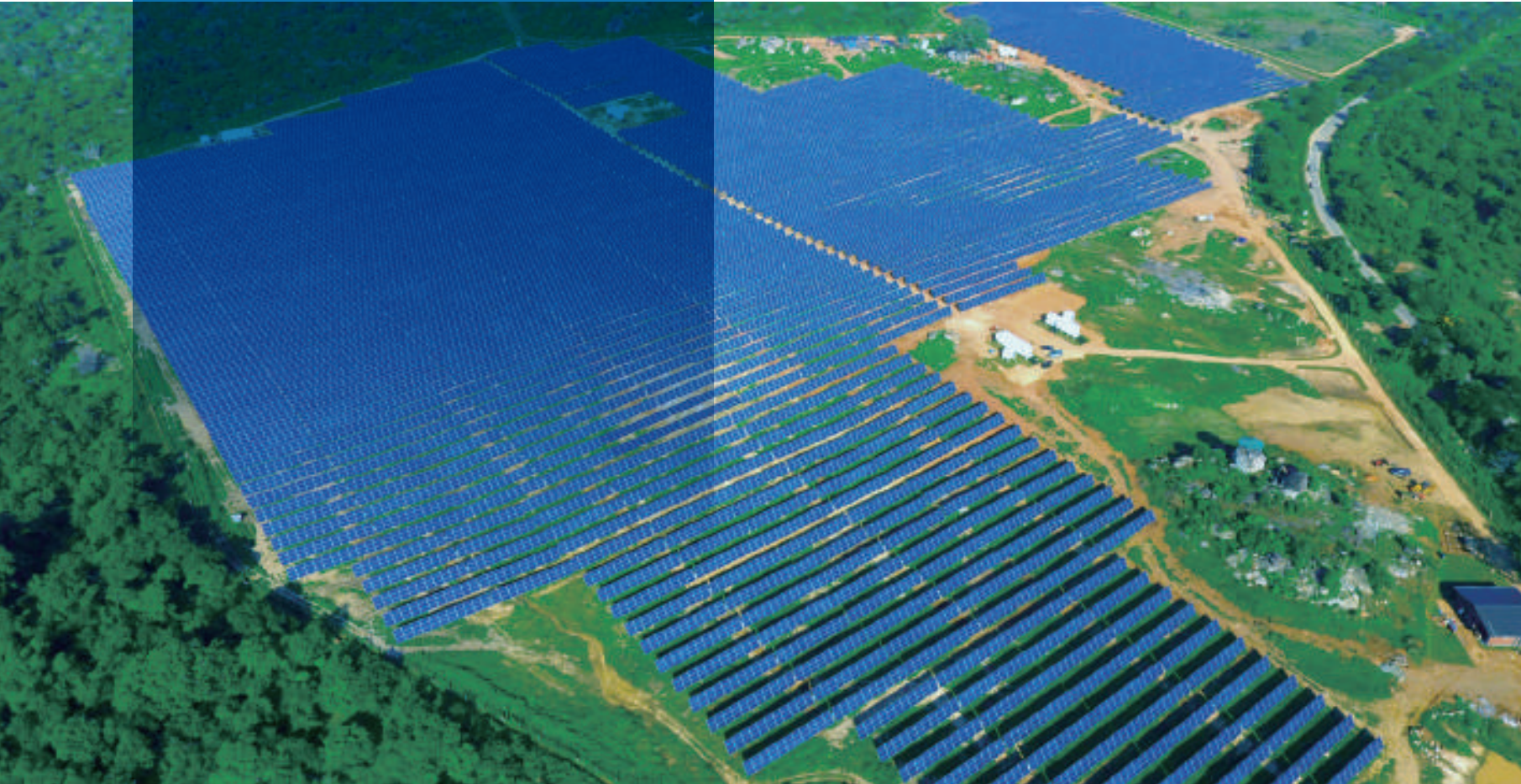


Lingshou, Hebei Province
50MW Vertex Agriculture-complementary projects



TrinaTracker

Ultra high temperature, large terrain slope
Cobra Solar Park Project, Spain
Ultra high temperature 44 C,
large terrain slope: Terrain Slope Over 12%



Hainan, Qinghai **High-altitude, low-temperature climate**
High altitude of 3200 m, low temperatures reaching -30°C



Miraflores Project **Highly corrosive area**
Highly corrosive, 3km away from the salt mine



Project in Clare, South Australia **Expansive clay soil, high wind pressure**
Expansive clay soil, hurricane area

Utility Projects & EPCM

Piolenc, Vaucluse, France
17MW floating project



Aguascalientes, Mexico
133MW ground-mounted power station project



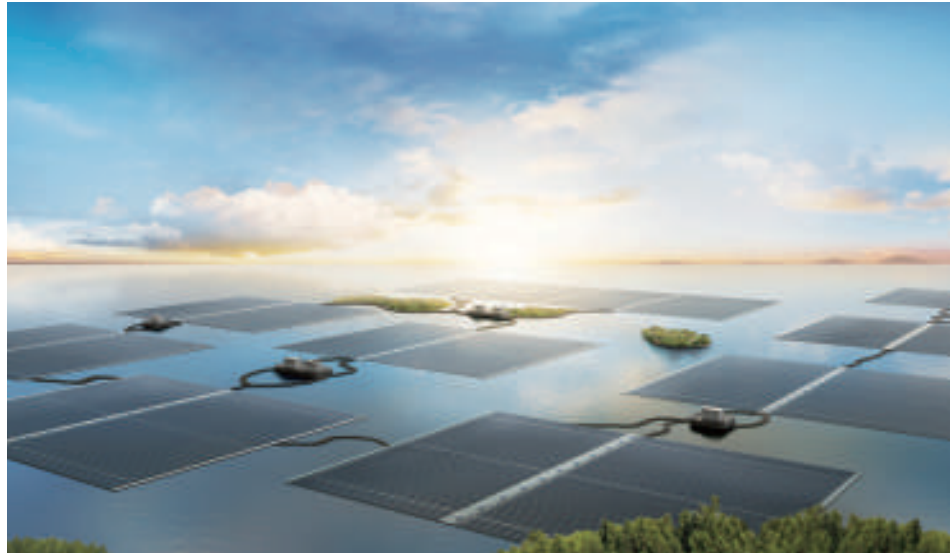
Ishinomaki, Miyagi Prefecture, Japan
14MW ground-mounted power station project



Phong Phu, Vietnam
42MW ground-mounted power station project



Norfolk, Britain
50MW ground-mounted power station project



Lianghuai, Anhui 170MW floating project



Xiangshui, Jiangsu 170MW photovoltaic agriculture project



Yangquan, Shanxi 50MW pioneer project

Utility Projects & EPCM



Tongchuan, Shaanxi Province
250MW pioneer project