



## THE "OLD MASTER" of the Century of Drive

hanghai Electric unveils its blueprint for industrial evolution at CIIF 2025.

As the "weathervane" of global industrial development, the 25th China International Industry Fair (CIIF) arrived as scheduled — and Shanghai Electric took this stage to debut its complete roadmap of "new quality productive forces," showcasing a holistic evolution from energy system restructuring to intelligent industrial synergy. Here, an experimental transformation themed around "Extreme Intelligence, Extreme Green, and Extreme Precision" is unfolding in real time.

This exhibition is not merely a display of technological achievements; it offers a deep exploration into how industries evolve. Within Shanghai Electric's "Seven-piece Puzzle" ecosystem, seven major business sectors — energy, industry, drives, basic parts, medical, environmental protection, and HVAC — fit together perfectly to unveil a comprehensive vision of the future industrial landscape.

Industrial evolution resembles the galaxy unfolding, vast, continuous, and ever-expanding through time. In the specially curated "Century of Drive" exhibition zone, relics such as a 1955 medium-pressure boiler model and the measuring instruments of New China's first 6,000 kW steam turbine quietly recount the beginnings of China's journey toward independent power equipment manufacturing. These historical artifacts, embodying the spirit of self-reliance, stand in striking contrast with the cutting-edge exhibits nearby, including a nuclear main pump and a humanoid robot, together tracing a clear trajectory from "Made Independently" to "Intelligently Made and Globally Leading".

"NEVER STOP THE EVOLUTION" is not only emblazoned on Shanghai Electric's booth at industrial expos, but also deeply engraved in the company's DNA. By combining its century-long industrial heritage and deep insights into real-world scenarios with next-generation technologies and R&D, Shanghai Electric brings to the smart era the composure and precision of an "old master."

Looking ahead, Shanghai Electric will continue to drive progress with its dual engines of energy and industry, further refining its "hard tech" while advancing system integration and ecosystem collaboration, transforming breakthroughs in technology into industrial resonance. Through this, the Group aims to inject lasting momentum into China's new industrialization.

Shanghai Electric Group Co., Ltd. Shanghai Electric Editorial Board

**Honorary Director** 

Nu Lei

Honorary Deputy Director

Director

Zeng Ji

Planner

Editor-in-Chief

u Min

Add 2748 Pudong Dadao, Shanghai

Zip 200136

Tel 8621-20605605

printing Shanghai Baolian computer printing Co., Ltd

2025. 10 NO. 59 Bilingual Bimonthly Journal

Shanghai Continuous Interior Materials Printing Permit (K) No.0465

Free Material Only for Internal Use

www.shanghai-electric.com





## CONTENTS

C O V E R T O P I C S **P16** 



When you step into Shanghai Electric's booth at the National Exhibition and Convention Center, it feels as if the gears of time suddenly accelerate. On a massive kinetic flip-wall, historical images of the Shanghai Dalong Machinery Factory from 1902 alternate with the vibrant glow of humanoid robots in 2025. A "century of drive" is brought to life through Shanghai Electric's profound legacy, opening an immersive exploration of industrial evolution.

NEWS LETTER

TRENDING

**P06** 

INSIGHTS

**P24** 

#### **PIONEERS**

The "Blue Guardian" of the Electromechanical BuildingTangjian

Adhere to the lofty aspirations and cast new light with bright lights

**INDUSTRY** 

ESG

#### **INDUSTRY**

Preserving the Sanctuary of Independent Thought

#### Disclaimer ·

Shanghai Electric Journal is intended to provide relevant information about Shanghai Electric (Group) Corporation and its subsidiaries, investees and associated companies, which could not constitute disclosure of or investment recommendations for Shanghai Electric Group Company Limited. Some companies/projects mentioned in the journal are not investments of Shanghai Electric Group Company Limited. Investors should refer to the announcements and interim/annual reports issued by Shanghai Electric Group Company Limited for information related to the listed company.

## NEWS LETTER



## 13 Projects Win the China Excellent Power Engineering Project Awards

Recently, the China Electric Power Construction Association announced the Results of the 2025 Electric Power Quality Project Awards. Among the winners were 13 projects where Shanghai Electric provided core equipment and undertook O&M and commissioning, including the CHN Energy Shanghai Miao Green, Smart, Solar-Thermal Complementary Demonstration Project, the Heyuan Power Plant Phase II 2x1000 MW Coal-Fired Expansion Project, and the Huadian Qingdao Gas Cogeneration Project. 10



## Yinghe Technology Empowers Global Battery Giant's European Expansion

Recently, Shenzhen Yinghe Technology Co., Ltd. achieved another major milestone in cooperation with one of the world's leading battery manufacturers. Several sets of high-performance double-layer extrusion coaters and integrated rolling and slitting machines have been loaded and shipped to the client's state-of-the-art gigafactory in Hungary. These machines will serve a 40 GWh production line, demonstrating Yinghe Technology's advanced equipment capabilities in supporting the European strategic expansion of a leading battery manufacturer.

#### Shanghai Electric Energy Storage Technology Wins Two Major Awards at CFE 2025

At the award ceremony of the 5th China Flow Battery Energy Storage Conference (CFE 2025), which just concluded, Shanghai Electric Energy Storage Technology Co., Ltd. was honored with the "2024-2025 Global Flow Battery Promotion Excellence Award". Meanwhile, Dr. Yang Linlin, the company's General Manager and Chief Engineer, received the title of "2024-2025 Leader in China's Flow Battery Energy Storage Industry". These accolades not only recognize Shanghai Electric's remarkable achievements in energy storage technological innovation, market development, and industry leadership, but also reflect deep expectations for continued contributions to global energy storage advancements.



#### Shanghai Electric Energizes Ethiopia Substation Project

Recently, the BDWC Substation Project in Ethiopia, undertaken by Shanghai Electric Power Transmission & Distribution Engineering Co., Ltd., achieved a key milestone with the successful initial energization of the **400kV** Bahir Dar Expansion Substation, laying a solid foundation for the project's completion. This project is one of Shanghai Electric's major EPC undertakings in East Africa's power sector, comprising two newly built **400kV** substations, one **400kV** expansion substation, and one **230kV** expansion substation.





#### Wujiang Transformer Successfully Develops Low-Noise Ultra-High-Voltage Reactor

Recently, Wujiang Transformer Co., Ltd. independently developed and manufactured the **BKD-320000/1100-145**, a low-noise ultrahigh-voltage reactor, which passed the type test by the China Electric Power Research Institute. The product set a new record for noise reduction in large-capacity UHV reactors, filling a global technological gap in low-noise design for UHV equipment. This innovation provides key equipment support for building green power grids and advancing the development of a new-type power system.



#### Sarawak Transmission Line Project in Malaysia Successfully Energized

Recently, the SIMILAJAU-BUNUT **500kV**Transmission Line Project in Sarawak, Malaysia, undertaken by Shanghai Electric Power Transmission & Distribution Engineering Co., Ltd., was successfully energized. As an integral part of Sarawak's central backbone grid, the line connects the two major industrial cities of Bintulu and Miri, ensuring regional power stability while also supporting electricity transmission to Sabah. The project's completion and energization mark a significant step toward enhancing the reliability of regional power infrastructure, ensuring a stable power supply, and supporting local economic growth. **2** 

#### Shanghai Electric's Hai Anh Wind Farm Selected as a Vietnam National Day Tribute Project

Recently, the Hai Anh 40MW Wind Power Project in Quana Tri Province, Vietnam, Shanahai Electric's first wind power project in the country, held its completion ceremony. As the only new energy power generation project in Quang Tri Province, it was selected for the "Collective" Completion Ceremony of New Projects Celebrating the **80th** Anniversary of the Socialist Republic of Vietnam". It was commended together with **250** other projects nationwide. The event was broadcast live by Vietnam Television, making it a landmark moment in the country's energy sector. Equipped with Shanghai Electric wind turbines, the project will generate 120 million kWh annually, significantly alleviating power shortages in Quang Tri and surrounding areas while providing solid support for local economic growth and energy structure optimization.



#### Gansu Electric Power Investment Changle Power Plant Unit 5 Successfully Completes 168-Hour Trial Operation

On September 6, Unit 5 of the Gansu Electric Power Investment Changle Power Plant **2x1000** MW coal-fired expansion project successfully passed its **168**-hour full-load trial operation and was officially put into commercial operation. The project is a key national energy project under China's "Western Development" strategy and serves as an important support point for the "West-to-East Power Transmission" initiative. Shanghai Electric Power Generation Group supplied major equipment, including steam turbines, generators, low-pressure heaters, and condensers. At full capacity, the project will anchor the Northwest Grid, delivering more than **10** billion kWh of electricity annually. It will significantly boost the region's renewable integration and inject strong momentum into optimizing the regional energy structure and accelerating socioeconomic growth...

#### Shanghai Electric Power Generation Group Showcases Integrated Energy Solutions at ENLIT ASIA 2025

From September 9-11, the **31st** Enlit Asia was held in Bangkok, Thailand. Under the theme "Intelligence-Synergy-Green Growth", Shanghai Electric Power Generation Group presented its innovative technologies and integrated energy solutions across multiple business sectors, including wind, solar, energy storage, hydrogen, coal power, gas power, and green fuels. Wiraphap Viriyapawan, Permanent Secretary of the Thai Ministry of Energy, attended the opening ceremony and visited the Shanghai Electric booth, highly praising the company's achievements in advancing the green energy transition.



#### Two Shanghai Electric-Participating Power Plants Pass 168-Hour Full-Load Trial Operation

Recently, two major projects featuring key equipment supplied by Shanghai Electric Power Generation Group, the Huaihe Energy Xieqiao Power Plant 2×660 MW ultrasupercritical coal-fired power units and the Jiangsu Energy Wulagai 2×1000 MW high-efficiency ultra-supercritical coalfired power project, have successfully passed their 168hour full-load trial operations, officially entering commercial operation. Once fully completed, the Xieqiao Power Plant is expected to generate approximately 6.6 billion kWh annually, helping to ease power supply pressure in Anhui Province and the Yangtze River Delta region, while providing a solid energy foundation for regional economic and social development. The Wulagai Project, China's first approved and constructed one-million-kilowatt lignite power generation unit, will supply approximately 10 billion kWh of clean electricity annually to Jiangsu Province. This will play a vital role in optimizing energy structure, ensuring stable power supply, and promoting sustainable economic growth in the region.

#### Launch of China's First Large-Capacity Air Separation Electric Drive and Ultra-High-Speed Direct-Drive Products

On September 12, Shanghai Electric Machinery Co., Ltd., a subsidiary of Shanghai Electric Group, held a grand launch ceremony for its new series of large-capacity air separation electric drives and ultrahigh-speed direct-drive products. At the event, China's first domestically developed **85,000** Nm<sup>3</sup>/h air separation electric drive and the country's first nitric acid "four-in-one" ultra-high-speed direct-drive unit made their official debut. The newly rolled-out large-capacity air separation electric drive will be deployed at the China Coal Yulin Coal Deep Processing Base, marking the first demonstration of a **40** MW-class ultra-high-power motor in China's coal chemical industry. The project has been officially included in the national application demonstration program. Meanwhile, the nitric acid "four-in-one" unit adopts an ultra-high-speed direct-drive configuration, featuring high speed and high precision, high efficiency with low energy consumption, enhanced reliability, and low maintenance costs. This breakthrough successfully ends the long-standing foreign monopoly in this field, empowering China's high-end equipment manufacturing industry with greater technological autonomy and development initiative.



## **TRENDING**

Deepening Energy Cooperation, Strengthening China-Pakistan Friendship

## President of Pakistan Visits Shanghai Electric

n September 15, President
of Pakistan Asif Ali Zardari,
accompanied by Jiang Zaidong,
Chinese Ambassador to Pakistan,
visited the headquarters of Shanghai Electric
Group for a cordial meeting centered on advancing
the China-Pakistan Economic Corridor (CPEC)
and strengthening cooperation in the energy
equipment sector. Wu Lei, Secretary of the Party
Committee and Chairman of Shanghai Electric
Group, delivered a welcome address.

President Zardari expressed his gratitude for the warm reception and highly commended Shanghai Electric's outstanding contributions to Pakistan's energy transition and people's well-being. He noted that the Thar Block I Integrated Energy Project, a flagship project under CPEC initiative, has not only significantly eased Pakistan's power shortages but also saved billions of U.S. dollars in foreign exchange through localized operations, playing an active role in improving local livelihoods. He warmly welcomed Shanghai Electric and other Chinese enterprises to continue investing in Pakistan. He emphasized that Pakistan would keep refining investment policies, improving the business environment, and addressing Chinese concerns in a timely manner. Looking ahead, he hoped Shanghai Electric would further leverage its strengths in clean energy and smart grid technologies to launch more high-quality cooperation projects, jointly writing a new chapter in the all-weather friendship between China and Pakistan.

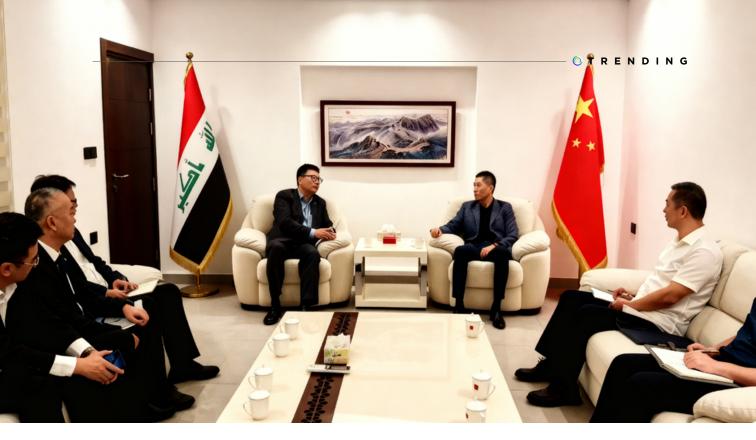
Wu Lei warmly welcomed President Zardari and his delegation, recalling the milestones Shanghai Electric has achieved in Pakistan since entering the market in 1992. He highlighted that, as a global leader in industrial-grade green intelligent system solutions, Shanghai Electric has actively responded to China's Belt and Road Initiative, considering Pakistan as a key hub of its globalization strategy. The Company has had the privilege of participating in major projects

such as the Thar Energy Integrated Project and the Sahiwal Power Plant, contributing Chinese solutions to enhance Pakistan's energy security and self-sufficiency. Looking to the future, Wu Lei stressed that Shanghai Electric will continue to leverage its strong manufacturing capabilities and extensive project management expertise to deeply participate in Pakistan's energy sector, fully supporting the country's energy development and driving sustainable economic growth.

During the meeting, Shanghai Electric and Pakistani enterprises signed a memorandum of understanding on further exploring the comprehensive utilization of Thar coal, marking a new milestone in bilateral energy cooperation.







## Shanghai Electric Leadership Visits

## Chinese Ambassador to Iraq

rom September 24 to 25 (local time),
Wu Lei, Party Secretary and Chairman of
Shanghai Electric Group, led a delegation
to Iraq, where they met with Cui Wei,
Chinese Ambassador to Iraq, and visited the Wassit
Power Plant Project undertaken by Shanghai Electric to
conduct research and extend greetings to on-site staff.

At the Chinese Embassy in Iraq, Ambassador Cui Wei highly commended Shanghai Electric's long-standing contribution to Iraq's social and economic development. He expressed hope that Shanghai Electric would continue to conduct an in-depth assessment of Iraq's political, economic, social, and cultural landscape, actively promote the alignment of the Belt and Road Initiative with local development needs, and fully leverage its integrated advantages in management and corporate culture. He also encouraged the Group to address complex overseas challenges prudently, uphold safety and compliance as red lines, and continue to play a leading role as a flagship enterprise by delivering

more high-quality projects that strengthen China-Iraq energy cooperation.

Wu Lei expressed his appreciation for the Embassy's continued guidance and support for Shanghai Electric's business operations in Iraq. He noted that Iraq remains a key strategic market for the Group. Going forward, Shanghai Electric will further strengthen regular communication with the Embassy and relevant institutions, scientifically assess market risks, and adhere to systematic thinking and sustainable development principles. The Group will pursue a balance between economic benefits and social responsibility, contributing valuable experience to the steady and sound operation of Chinese enterprises abroad.

Later, at noon on September 25 (local time), Wu Lei and his delegation visited the Ministry of Electricity (Iraq), where they met with Minister Ziyad Ali Fadel and held discussions with the Ministry's leadership on the progress of ongoing projects and prospects for deeper future cooperation. ①

#### **China-Romania Energy Cooperation:**

Exploring New Opportunities for Green Energy Development in Central and Eastern Europe

## Shanghai Electric Leadership Visits Romania

rom September 30 to October 1 (local time), Wu Lei, Party Secretary and Chairman of Shanghai Electric Group, visited Romania, where he met with Chen Feng, Chinese Ambassador to Romania, and Lóránt Antal, Chairman of the Romanian Energy Committee. Wu also held talks with senior executives of OMV Group (Austria) to discuss expanding and deepening cooperation in the Central and Eastern European energy market.

On the morning of September 30, during a meeting at the Chinese Embassy in Romania, Ambassador Chen Feng praised Shanghai Electric's contributions to Romania's social and economic development. He noted that Romania is accelerating its energy structure transformation, which aligns closely with China's "dual carbon" goals, creating vast potential for cooperation in areas such as green energy and smart grids. The Ambassador affirmed that the Embassy would continue to support Shanghai Electric and other Chinese enterprises in Romania. He urged them to enhance their understanding of the local market environment, strengthen synergies across technology and industrial chains, expand localized collaboration, and advance the implementation of high-quality projects. These efforts are expected to inject new momentum into the comprehensive friendly partnership between China and Romania.

On the afternoon of October 1, Chairman Lóránt Antal met with Wu Lei at the Palace of the Parliament in Bucharest for formal talks. Mr. Antal recognized Shanghai Electric's global leadership



in energy equipment manufacturing, noting that Romania is vigorously advancing its energy transition across photovoltaics, energy storage, gas turbines, and power transmission and distribution. He expressed a strong interest in deepening cooperation with Shanghai Electric to jointly develop renewable energy projects.

Wu Lei introduced Shanghai Electric's innovation achievements and project experience in clean energy, power transmission and distribution, photovoltaics, and energy storage across Europe. He emphasized that Shanghai Electric places high strategic importance on the Romanian market. The Group is committed to utilizing its strengths in technology, capital, and management to actively participate in Romania's energy infrastructure development. By providing clean, reliable, and efficient energy solutions, Shanghai Electric supports local economic and social progress. **0** 





## Romania Pălău Phase II 342 MW Photovoltaic **Project Officially Signed**

n the morning of October 1 (local time), the signing ceremony for the Pălău Phase II 342 MW Photovoltaic EPC Project in Romania was successfully held. Wu Lei, Party Secretary and Chairman of Shanghai Electric Group, and Andrea Loi, Vice President of Operations at Econergy Renewable Energy Ltd. (hereinafter referred to as "Econergy"), attended and witnessed the signing. This collaboration marks a new milestone in the strategic synergy between the two companies in the field of clean energy and will inject strong momentum into the region's energy transition. As of now, Shanghai Electric has undertaken

four photovoltaic projects in Romania. Among them, the Pălău Phase I 91.4 MW and the Scultu 56 MW PV projects have been completed, while the Ovidiu 60 MW EPC project is currently under construction. The newly signed Pălău Phase II 342 MW EPC project marks Shanghai Electric's fourth photovoltaic project in Romania.

Shanghai Electric
Wind Power Wins
Two Major Onshore
Wind Projects
in Bosnia and
Herzegovina

ecently, Shanghai Electric Wind Power Group Co., Ltd. (hereinafter referred to as Shanghai Electric Wind Power) successfully won bids for the 29.9 MW Jalačići Wind Power Project and the 90 MW Orlokuk Wind Power Project in Bosnia and Herzegovina (BiH).

In recent years, Shanghai Electric Wind Power has continued to expand its international footprint, with overseas contract capacity exceeding 1 GW in 2024, covering markets across Eurasia, Southeast Asia, and South Korea. The successful bid for the BiH projects marks a significant milestone in Shanghai Electric Wind Power Group's expansion into the European market. It also represents a concrete step in advancing China's "dual-carbon" strategy and deepening green energy cooperation under the Belt and Road Initiative.

# Shanghai Electric Leadership Visits the UAE to Explore New Opportunities under the Belt and Road Initiative

rom September 27 to 29 (local time), Wu Lei, Party Secretary and Chairman of Shanghai Electric Group, led a delegation to the United Arab Emirates, where they met with Mohammad Abunayyan, Chairman of ACWA Power, and Saeed Mohammed Al Tayer. Chairman of the Dubai Electricity and Water Authority (DEWA). They reached a series of consensuses on the advancement of Dubai projects, international market expansion, and collaboration in emerging sectors. During the visit to the United Arab Emirates, Shanghai Electric Group Chairman Wu Lei and his delegation visited the Shanghai Electric Dubai Branch, conducted on-site research, received detailed project briefings, and extended greetings to front-line employees. Wu Lei emphasized that the Dubai Branch should formulate its overseas business development plan from a strategic and global perspective, proactively align with the Group's transformation direction and the reform roadmap of its engineering sector. He encouraged the branch to elevate its strategic positioning, move beyond a single business dimension, and fully leverage its role as a bridge between headquarters and international markets, helping to advance the global presence of the Group's core equipment. He further stressed the importance of actively aligning with the Belt and Road Initiative, deepening cooperation with leading international enterprises, expanding global operations, and jointly developing highquality cooperation projects that exemplify mutual benefit and innovation.







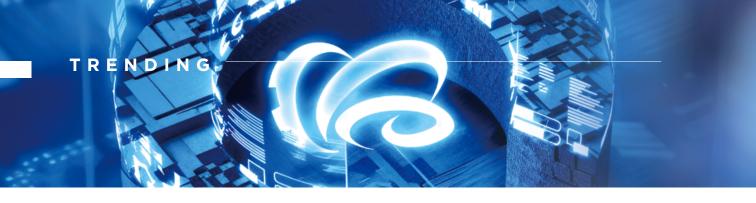
Wu Lei and his delegation also inspected the Dubai Concentrated Solar Power (CSP) Project site to gain a detailed understanding of the team's progress and achievements. He noted that the project, a key collaboration under the China-Arab Green Silk Road framework, holds both strategic significance and strong demonstration value. He urged the Dubai Branch to take this project as a cornerstone for expanding Shanghai Electric's footprint in the Middle East, driving continuous technological upgrades of the Group's equipment, and transforming technological advantages into market competitiveness. Wu Lei affirmed that the Group would provide full support to the project, making it a "testing ground" and "whetstone" for strengthening team capability and enhancing the Group's overall competitiveness, ultimately achieving synergy across talent development, technological value, and market performance. An employee recognition ceremony for professional skill advancement was also held on-site, with Wu Lei personally attending to present awards, which further inspires staff to enhance their expertise and professional excellence.

# Shanghai Electric Ranked 90th Among Asia's 500 Most Influential Brands



n September 24, the World Brand Lab unveiled its "Asia's 500 Most Influential Brands of 2025" list during the Asia Brand Summit. Shanghai Electric secured the 90th position on the list, marking a one-place improvement compared leading enterprise in China's equipment manufacturing industry, Shanghai the Group continues to strengthen influence, advancing brand value industrial growth. Looking ahead, Shanghai Electric will continue to deepen the essence of the "Intelligent development of China's advanced equipment manufacturing industry.





# Shanghai Electric Showcases Industrial Innovation at the 25th CIIF, Li Lecheng and Gong Zheng Visit Shanghai Electric Booth



n September 23, the 25th China International Industry Fair (CIIF) officially opened in Shanghai. That morning, Li Lecheng, Party Secretary and Minister of the Ministry of Industry and Information Technology (MIIT), and Gong Zheng, Deputy Party Secretary of the CPC Shanghai Municipal Committee and Mayor of Shanghai, visited the Shanghai Electric exhibition area to learn about the Group's latest achievements in technological innovation and high-end equipment manufacturing. They were received by Wu Lei, Party Secretary and Chairman of Shanghai Electric Group, Zhu Zhaokai, Deputy Party Secretary and President, and Wang Chenhao, Deputy Party Secretary and Chairman of Shanghai Electrical and Mechanical Labor Union.

During the visit, the leaders were briefed on Shanghai Electric's breakthrough progress in the nuclear power sector, including the achievements of the Hualong One nuclear technology, the development of core fusion equipment, and the Group's key technological breakthroughs and industrialization prospects in building a "hydrogen-ammoniamethanol" clean energy system.

This year's CIIF featured nine themed exhibitions, covering critical areas such as CNC machine tools, robotics, green and low-carbon technologies, integrated circuits, and intelligent

energy, offering a comprehensive view of China's diverse industrial innovation ecosystem. Under the theme "Industrial Evolution, Advancing Together", Shanghai Electric presented an integrated display built around its seven major business sectors—Energy, Industry, Drives, Basic Parts, Medical, Environmental Protection, and HVAC, forming a dynamic "Tangram"-style industrial ecosystem. The exhibition systematically showcased the Group's latest technological innovations and integrated solutions in new power systems and high-end intelligent equipment.

In the Energy Zone, Shanghai Electric displayed comprehensive system solutions spanning thermal, nuclear, wind, solar, storage, power transmission and distribution, hydrogen, ammonia, methanol, and instrumentation, reflecting the Group's leadership in new power system construction and green energy transformation. The Industry Zone centered on the theme of "Big Industry, Big Manufacturing, and Big Cities", highlighting integrated highend equipment and intelligent manufacturing solutions that demonstrate Shanghai Electric's pivotal role in advancing industrial upgrading and urban modernization.

In the machine tool sector, Shanghai Electric showcased major breakthroughs in core technologies and cross-industry innovation. Its industrial machine tool business, represented by high-end grinding centers and heavy-duty lathes, stands at the forefront of China's machine tool industry. The high-precision grinding center exhibited at the fair achieves nanometer-level machining accuracy, capable of producing key components for aero engines as well as precision joints for robotics applications.



o implement MIIT's "Machine Tool +"
Supply-Demand Matchmaking Initiative,
and to promote the deep integration
of Shanghai's machine tool enterprises
with upstream and downstream partners, the 2025
"Machine Tool +" Supply-Demand Matchmaking
Event (Shanghai Session) was successfully held at
the National Exhibition and Convention Center on
September 23, the opening day of CIIF 2025. Guided
by the Shanghai Municipal Commission of Economy
and Informatization and organized by Shanghai
Electric Group,the event released 100 demand lists
and 200 supply lists, covering diverse application
scenarios such as aerospace, aviation engines, NEVs,

engineering machinery, and robotics, which aims to foster collaboration and shared growth among enterprises of all sizes.

Twelve companies, including Shanghai Machine Tool Works Co., Ltd., Baoshan Iron & Steel Co., Ltd., and COMAC Shanghai Aircraft Manufacturing Co., Ltd., signed cooperation agreements on-site, establishing long-term partnerships between upstream and downstream enterprises. The event facilitated over 80 cooperation projects with a total contract value exceeding RMB 3 billion, effectively linking supply and demand, optimizing the industrial ecosystem, and accelerating the coordinated development of China's high-end machine tool industry.



#### Shanghai Electric to Build National Pilot Base for Al Application in Manufacturing

n September 11, the Shanghai "AI + Manufacturing" Promotion Conference and Launch Ceremony for the National Pilot Base for AI Applications (Manufacturing Sector) was held at the Shanghai Electric Training Center. The project, jointly guided by the National Development and Reform Commission (NDRC) and the Ministry of Industry and Information Technology (MIIT), will be constructed by Shanghai Electric. Chen Jie, Vice Mayor of Shanghai, attended and delivered remarks. Deputy Director of the Shanghai Municipal Commission of Economy and Informatization Ge Dongbo and Chief Engineer Qiu Wei also attended the event.

## **Shanghai Electric Wins Five Shanghai Science and Technology Progress Awards**

his year, a total of 206 projects and individuals received the Shanghai Science and Technology Awards, fewer than last year's 214. As an authoritative science and technology award established by the Shanghai Municipal Government, in recent years it has streamlined the number of awards and strengthened evaluation standards, aiming to continuously enhance the guidance of rewards toward project quality, significantly increase the academic value of research projects, and promote their broader impact across basic research, technological innovation, and industrial application.

The winning projects once again highlight Shanghai Electric's commitment to contributing to national priorities and driving high-quality technological progress: The project "Key Technologies and Applications for Reliable Welding of Large Components under Harsh Service Conditions" has been successfully applied in the engineering practice of first-of-itskind major national equipment such as nuclear turbine rotors, reactor pressure vessels, and high-temperature hydrocracking reactors. The project "Thermal-Hydraulic Design and Analysis Technology Development and Application for Key Nuclear Reactor Equipment" has been implemented in the Hualong One, Guohe One, and six small modular reactor projects, providing critical technical support for multiple national strategic programs.

In addition, Shanghai Automation Instrumentation Co., Ltd. contributed to two award-winning projects targeting key challenges in China's nuclear power industry. Through years of systematic R&D and technological breakthroughs, the company independently developed a series of highend control valves and intelligent operation & maintenance systems, and successfully created the world's first high-safety nuclear-grade I&C system based on FPGA technology. Meanwhile, Shanghai Electric Power Electronics Co., Ltd. participated in the project "Key Technologies and Applications for Flexible Control of Distribution Networks Supporting the Integration of New Energy Sources and Loads". Addressing the challenges of high renewable

energy penetration, the project achieved major breakthroughs in flexible control, developing a full range of supporting products and establishing a complete industrial chain from chips and modules to systems, maintaining a leading market share in the industry.



### First Prize for Scientific and Technological Progress

Key Technologies and Applications for Reliable Welding of Large Components under Harsh Service Conditions

Shanghai Electric Power Generation Equipment Co., Ltd. Turbine Plant

Shanghai Electric Nuclear Power Equipment Co., Ltd.

Thermal-Hydraulic Design and Analysis
Technology Development and Application for
Key Nuclear Reactor Equipment

Shanghai Electric Nuclear Power Equipment Co., Ltd.



## Second Prize for Scientific and Technological Progress

Development and Application of High-End Control Valves and In-Service Inspection Technology for Severe Nuclear Power Conditions

Shanghai Automation Instrumentation Co., Ltd.

Key Technologies and Applications of High-Safety Nuclear-Grade I&C Systems for Large Advanced PWRs

Shanghai Automation Instrumentation Co., Ltd.

Key Technologies and Applications for Flexible Control of Distribution Networks Supporting the Integration of New Energy Sources and Loads

Shanghai Electric Power Electronics Co., Ltd.

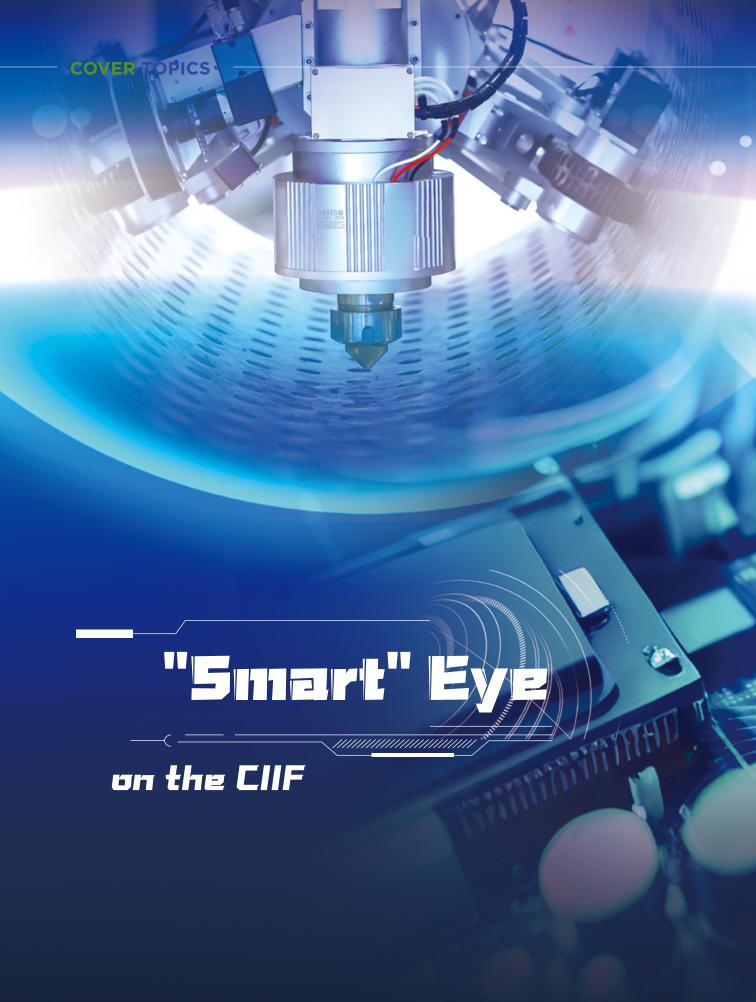
## Shanghai Electric and SIPG Energy Sign Green Methanol Supply Contract

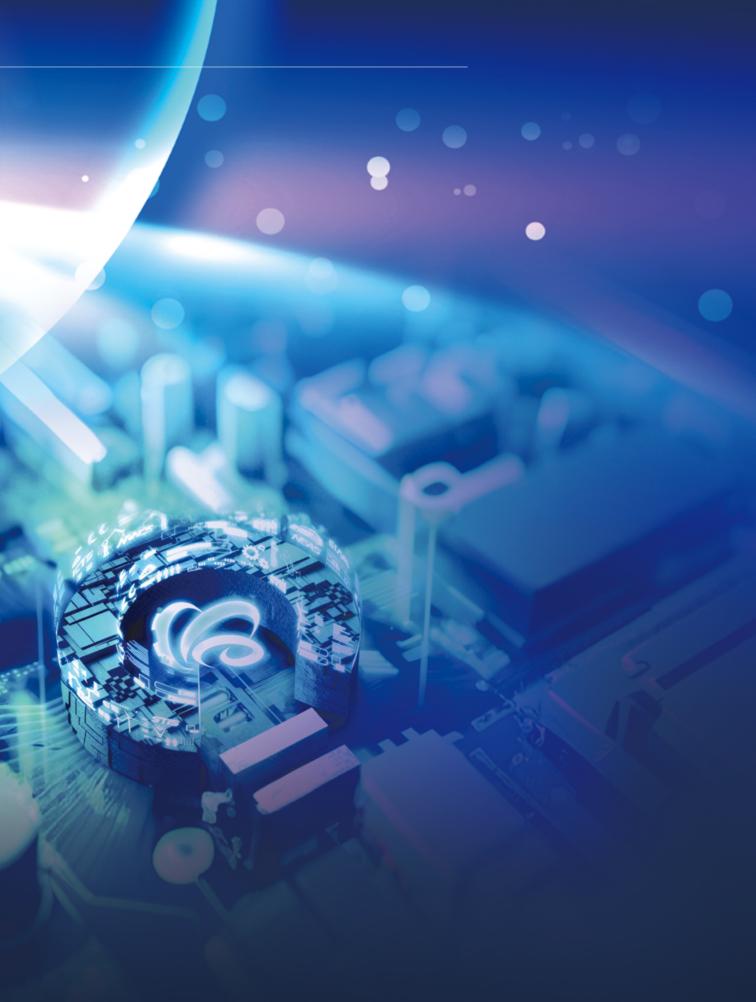
n September 22, Shanghai Electric's subsidiary, Taonan Green Source Fuel Co., Ltd., officially signed a Green Methanol Procurement and Supply Contract with SIPG Energy, Just days earlier, on September 18, SIPG Energy had signed a Green Methanol Bunkering Service Contract with CMA CGM of France. The signing of these two contracts marks a significant milestone in the tripartite cooperation framework agreement on long-term green methanol supply established in March 2025. The initial phase of cooperation will continue through 2030.

According to the agreement, the three parties will fully leverage their respective strengths to jointly build an integrated green methanol industry chain spanning production, storage and transportation, and bunkering services. Shanghai Electric will provide stable and reliable green methanol capacity through its self-developed Taonan Green Methanol Project in Jilin Province. Drawing on Shanghai Port's operational expertise and leadership in green energy bunkering, SIPG Energy will offer safe and efficient green methanol bunkering services for CMA CGM vessels. This collaboration not only provides CMA CGM with a solid green fuel solution to support its goal of achieving net-zero carbon emissions by 2050, but also serves as a replicable and scalable model for global maritime decarbonization.

As the methanol supplier, Shanghai Electric's Taonan project officially commenced production on July 15 this year, successfully delivering its first batch of qualified green methanol products. The project is China's first large-scale demonstration project integrating wind power-based hydrogen production with biomass gasification for green methanol synthesis. Its successful commissioning verifies the feasibility and technological advancement of this production route, laying a solid foundation for large-scale, cost-effective production and timely deployment of green methanol bunkering operations. This milestone demonstrates that Shanghai Electric now possesses the capability to provide customers with tailored, one-stop integrated system solutions combining wind and solar power with biomass-based green methanol production.









## Shanghai Electric:

## A Living Epic of Industrial Evolution

n September 23, the 25th China International Industry Fair (CIIF) officially opened in Shanghai. That morning, Li Lecheng, Party Secretary and Minister of the Ministry of Industry and Information Technology (MIIT), and Gong Zheng, Deputy Party Secretary of the CPC Shanghai Municipal Committee and Mayor of Shanghai, visited the Shanghai Electric exhibition area to learn about the Group's latest achievements in technological innovation and high-end equipment manufacturing. They were received by Wu Lei, Party Secretary and Chairman of Shanghai Electric Group, Zhu Zhaokai, Deputy Party Secretary and President, and Wang Chenhao, Deputy Party Secretary and Chairman of the Shanghai Electrical and Mechanical Labor Union.

This year's CIIF featured nine themed exhibitions, covering critical areas such as CNC machine tools, robotics, green and low-carbon technologies, integrated circuits, and intelligent energy, offering a comprehensive view of China's diverse industrial innovation ecosystem. Under the theme "Industrial Evolution, Advancing Together", Shanghai Electric presented an integrated display built around its seven major business sectors—Energy, Industry, Drives, Basic Parts, Medical, Environmental Protection, and HVAC, forming a dynamic "Seven-piece Puzzle"-style industrial ecosystem. The exhibition systematically showcased the Group's latest technological innovations and integrated solutions in new power systems and high-end intelligent equipment.

When you step into Shanghai Electric's booth at the National Exhibition and Convention Center, it feels as if the gears of time suddenly accelerate. On a massive kinetic flip-wall, historical images of the Shanghai Dalong Machinery Factory from 1902 alternate with the vibrant glow of humanoid robots in 2025. A "century of drive" is brought to life through Shanghai Electric's profound legacy, opening an immersive exploration of industrial evolution.





#### Next-Generation Energy Systems Showcasing Evolutionary Strength

In response to the integration trend of "source, grid, load, storage, and control", Shanghai Electric has strategically advanced its energy segment, building a comprehensive integrated power system rooted in coal power, gas power, and nuclear power, focused on wind, solar, and storage, linked through power transmission and distribution, extended into hydrogen, ammonia, and methanol, and supported by instrumentation and control. These innovations were on full display in the Energy Zone.

In the high-end nuclear power equipment field, Shanghai Electric demonstrated its formidable industrial capabilities. As the only domestic manufacturer capable of providing complete sets of nuclear island main equipment for high-temperature gas-cooled reactors, Shanghai Electric has overcome numerous world-class and industry-critical technological challenges. At this year's CIIF, the Group presented a full "nuclear family" of equipment, including the Guohe One large-scale advanced pressurized water reactor wet-wound main pump, the Hualong One reactor coolant pump, the AP1000 pressure vessel model component and the HTGR (High-Temperature Gas-Cooled Reactor) pressure vessel. Together, they highlight Shanghai Electric's technological prowess in third- and fourthgeneration nuclear main equipment manufacturing.

#### **COVER TOPICS**

Since 2000, Shanghai Electric has participated in the "Artificial Sun" nuclear fusion project and has become one of China's most comprehensive suppliers of core equipment for nuclear fusion main systems. This year, it showcased fusion system components such as the vacuum chamber, cold shield, coil box, and Dewar, demonstrating China's independent innovation in controllable nuclear fusion technology.

In the green energy sector, Shanghai Electric is accelerating its layout across the hydrogen-ammonia-methanol value chain, striving to establish a new benchmark for clean energy. The Group now offers endto-end solutions covering green hydrogen production hydrogen-ammonia integration, and methanol synthesis. At CIIF, a sandbox model recreated the Taonan Integrated Wind Power-Coupled Biomass Green Methanol Demonstration Project. It is China's first largescale, commercially operated green methanol project and showcases the entire closedloop process from R&D and production to application. The project deeply integrates Shanghai Electric's proprietary technologies, including pure oxygen pressurized biomass fluidized bed gasification, CO2-rich methanol synthesis, weak-grid-connected wind-hydrogen coupling, and flexible chemical control systems. It is also the first green methanol project in China certified under the EU ISCC full-process standard, earning Shanghai Electric a passport to the international market.

### Integrated Equipment Solutions: Practicing "Boundless Smart Manufacturing"

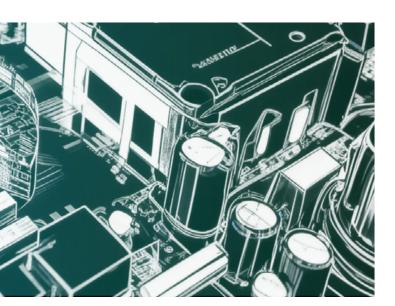
Shanghai Electric has structured its industrial layout around the three dimensions of "Macro-Manufacturing", "Macro-Industry" and "Macro-City", connecting its diverse business segments to achieve "boundless smart manufacturing". For Macro-Manufacturing, the company focuses on the full spectrum from industrial plant design to machine tools, and from intelligent robots to automated production lines and control system solutions. For Macro-Industry, it targets high-energy-consuming sectors such as petrochemicals, metallurgy, and building materials, providing end-to-end solutions that span system design, industrial drives, chemical processing equipment, and environmental protection systems. For Macro-City, Shanghai Electric delivers integrated zerocarbon industrial park solutions, extending from smart buildings to HVAC systems, creating multidimensional, intelligent, and sustainable urban infrastructure.

Leveraging the synergy of its diversified industrial ecosystem, Shanghai Electric has achieved high-precision, high-performance breakthroughs in intelligent robot development.



At this year's exhibition, the company showcased a diverse lineup of humanoid and specialized intelligent robots designed for various applications, including LINGTENG, a pipe operation special-purpose robot, LINGHANG, an inspection robot, LINGYAO, a wheellegged robot, LINGKE, a dual-arm collaborative robot, and HENGSUN, a hip joint surgical robotic system. These advanced models, representing robotics across multiple professional fields, vividly demonstrate Shanghai Electric's comprehensive capabilities in intelligent robotics R&D. Also on display were core components of humanoid robots, underscoring the company's full industrial chain advantage, from robot systems and application development to key component manufacturing and precision processing equipment, all powered by Shanghai Electric's crosssector integration and innovation strength.

In the machine tool sector, Shanghai Electric showcased major breakthroughs in core technologies and cross-industry innovation. Its industrial machine tool business, represented by high-end grinding centers and heavy-duty lathes, stands at the forefront of China's machine tool industry. The high-precision grinding center exhibited at the fair achieves nanometer-level machining accuracy, capable of producing key components for aero engines as well as precision joints for robotics applications. On September 23, the opening day of CIIF, the 2025 "Machine Tool+" Supply-Demand Matchmaking Initiative (Shanghai Station), guided by the Shanghai Municipal Commission of Economy and Informatization and hosted by Shanghai Electric, was successfully held at the National Exhibition and Convention Center (Shanghai). Seizing this



opportunity, Shanghai Electric joined hands with partners across the industrial chain to promote deep integration and high-quality development throughout the sector.

#### Decoding a Century of Drive: The Legacy of Chinese Industry

Industrial new quality is rooted in historical accumulation. As the cradle of China's modern industry and a living witness to Shanghai's industrial evolution, Shanghai Electric has a lineage in industrial drive that stretches back over 120 years. At this year's CIIF, the Group created a special "Century of Drive" exhibition area, bringing together a series of artifacts that mark milestones in New China's industrial history and symbolize the excellence of "Made in Shanghai". Exhibits included a replica model of the 40t/h medium-pressure chain-grate boiler manufactured in 1955 and the original measurement instruments used for China's first domestically developed 6,000 kW steam turbine, commemorating the birth of the nation's first self-designed thermal power generation unit. The main pump piston and connecting rod from a 10,000-ton hydraulic press represent a historic breakthrough in China's heavy machinery manufacturing, embodying the spirit of self-reliance and perseverance of Chinese industrial workers.

Other items, such as the first low-voltage electrical components independently designed and produced in China and equipment developed by national model worker Li Bin, symbolize the starting point of China's self-reliant path in power equipment manufacturing. Each artifact encapsulates the spirit and evolution of Shanghai Electric through a century of industrial transformation. By showcasing these authentic relics of China's modern industrial history, Shanghai Electric invites visitors to explore the depths of its historical heritage and the essence of industrial evolution.

A Shanghai Electric representative stated that the Group will continue to advance the dualengine evolution of energy and industry, constantly refining its core technologies and driving the future of "Industrial Innovation and Boundless Smart Manufacturing".

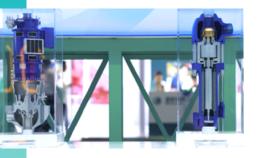
[ Chapter I ]

#### The Energy Revolution: From the Spark to the "Artificial Sun"



#### Thermal Power Reborn: Leading the World with 650°C Ultra-Supercritical Units

In the "Coal-Gas-Nuclear" zone, a full-scale 1:1 model of a 650°C 1,000MW ultra-supercritical steam turbine stands as the centerpiece. This world-leading coal-fired power unit, boasting the highest operating parameters globally, has conquered a series of key challenges, including iron-nickel alloy welded rotors and next-generation thermodynamic systems, transforming traditional thermal power into a "super manager" for grid peak regulation. Through an interactive digital sandbox, visitors can witness how this system achieves the perfect balance between deep load regulation, rapid response, and high efficiency across a wide load range.



## The Nuclear Energy Matrix: A Leap from Generation III to Generation IV

Before the model of the Hualong One nuclear island main equipment, streams of visitors gather to admire the fully independently designed third-generation nuclear power marvel. This "national treasure" embodies eight years of research breakthroughs by Shanghai Electric in fields such as wet-winding main pumps and reactor internals. Even more inspiring is the Generation IV High-Temperature Gas-Cooled Reactor (HTGR), China's homegrown solution. With Shanghai Electric as the exclusive supplier of core equipment including reactor pressure vessels and steam generators, the new system boosts nuclear power generation efficiency by 40%, injecting hardcore momentum into China's dual carbon goals.



#### Fusion Light: Igniting Humanity's Ultimate Energy Dream

At the heart of the exhibition stands an 18-meter-diameter Tokamak fusion reactor model, radiating as the "Eye of the Future". For over 20 years, Shanghai Electric has mastered ultra-low-temperature welding and large-forging fabrication technologies, achieving domestic breakthroughs in the manufacturing of core components of the "Artificial Sun", including the vacuum chamber and Dewar. Through immersive VR experiences, visitors can step inside the fusion reactor and feel the awe-inspiring force of 150 million°C plasma energy, symbolizing humanity's relentless pursuit of clean, inexhaustible power.



[ Chapter II ]

#### Smart Manufacturing: From Millimeters to Nanometers



## The Machine Tool: "China Precision" in the Making of a Great Power

In the "Macro-Industry" exhibition zone, the X7 high-precision composite grinding platform is demonstrating live impeller machining. With the seamless coordination of hydrostatic guideways and linear motors, the platform achieves a surface roughness of below Ra 0.1Qm, reaching near-nanometer precision. Dubbed the "Mother of Machine Tools," this technology has already been applied in the manufacturing of aero-engine blades, nuclear power rotors, and other critical components. Visitors are invited to touch the machined parts themselves, experiencing firsthand the impressive capabilities of "China Precision".



## The Robot Legion: All-Round Players from the Factory Floor to the Operating Room

The LINGTENG pipe robot extends its mechanical arm, performing precise chamfering inside heat exchanger tubes, while the LINGHANG inspection robot navigates complex pipelines with centimeter-level mapping accuracy. Stealing the spotlight, the LINGKE dual-arm robot showcases its force-control precision during the cleaning of nuclear steam generator tube plates, marking a leap into the era of "millimeter-perfect" industrial maintenance. In the interactive experience zone, visitors can don VR headsets to become robot operators, experiencing the "magic of precision within a fraction of a millimeter".

#### **COVER TOPICS**



[ Chapter III ]

#### A Greener Future: Every Kilowatt Tells a New Story

#### Wind-Solar-Storage Integration: Powering the Grid with a "Super Battery"

In the "Wind-Solar-Storage" exhibition area, a 640W heterojunction (HJT) solar panel gleams under the light. As the most efficient mass-produced solar module in the world, it is paired with flywheel energy storage and compressed air energy storage technologies, forming the beating heart of zero-carbon industrial parks.

#### Green Methanol: China's Solution for Decarbonizing Global Shipping

On the interactive model of the Taonan wind farm in Jilin, streams of virtual biomass flow and converge into "green methanol". Shanghai Electric's pioneering "green power-to-hydrogen plus biomass gasification" process is setting sail for the first 10,000-ton-scale green methanol production line in China. Before the methanol synthesis reactor model, visitors can scan QR codes to watch animated walkthroughs of the entire methanol production process, marveling at the technological alchemy that transforms clean energy into "liquid solar fuel".

[ Chapter IV ]

#### Industrial Evolution: Shanghai Electric Never Stops

In front of the centerpiece "Evolution Machine," long queues of visitors gather in anticipation. With a pull of the century time lever, they draw a limited-edition industrial blind box. Across the hall, naked-eye 3D columns blend the heart of energy with agile industrial robots, showcasing the engine of progress in motion. To complement the immersive experience, visitors can also enjoy LAVAZZA co-branded coffee and take home eco-friendly luggage tags, where industrial strength meets human warmth.

From 1902 to 2025, Shanghai Electric has chronicled a century-long saga of industrial evolution, crafting the story of a nation's rise through one "Great Power Machine" after another. When you touch the piston of the 10,000-ton hydraulic press, witness the awe of the fusion reactor, or experience the precision of a humanoid robot, you're breathing in sync with China's industrial backbone and decoding the energy DNA of a century in motion.

## Interactive Topic: What Cutting-Edge Technologies Did I Discover at CIIF?

**@Yang Keke:** On opening day, I saw our Group leaders visiting the booths of Shanghai Electric subsidiaries such as FANUC, Nabtesco, and Shanghai Machine Tool Works. They gained insights into the latest innovations and business highlights, while also touring the National Achievements Exhibition, the "Al + Manufacturing" zone, and the Humanoid Robot area, exploring frontier technologies, innovation trends, and collaboration opportunities.

**@Niuniu:** I was most interested in the Energy Zone. This year's display featured comprehensive system solutions spanning coal, gas, nuclear, wind, solar, energy storage, power transmission and distribution, as well as hydrogen, ammonia, methanol, and instrumentation. It perfectly showcases Shanghai Electric's leading capabilities in building a new power system and advancing the green energy transition.

**@HappyEveryday:** The special "Century of Drive" industrial heritage zone truly stood out. Through a collection of precious historical artifacts marking milestones in China's industrial development, it vividly traced Shanghai Electric's deep-rooted connection and shared growth with China's industrial journey, reflecting the profound cultural heritage and spirit of this century-old brand.

**@Guangou:** Shanghai Mitsubishi Elevator's intelligent IoT elevator management really impressed me. Wireless control anytime, anywhere, right from your mobile device.

#### Shanghai Electric Shines at CIIF Winning Six Prestigious Awards

On September 25, during the 25th China International Industry Fair (CIIF), the CIIF Smart Energy Awards ceremony saw Shanghai Electric claim four top honors in the energy category. Simultaneously, at the CIIF Industrial Automation Awards announced during the same period, the company won two additional accolades, bringing its total to six awards, making Shanghai Electric one of the most celebrated exhibitors of this year's fair.

Advanced Pressurized Water Reactor "Hualong One" Nuclear Island Main Equipment and Large Forgings, jointly submitted by Shanghai Electric Nuclear Power Group Co., Ltd. and partners;

Next-Generation Ultra-Supercritical Steam Turbine Key Technologies and Industrial Applications for Deep Peak Regulation, submitted by Shanghai Electric Power Generation Equipment Co., Ltd.;

300 MW Hydrogen-Blended Heavy-Duty Gas Turbine, submitted by Shanghai Electric Gas Turbine Co., Ltd.;

Long-Term Storage No.1 500kW/2MWh Double-Layer Containerized All-Vanadium Redox Flow Energy Storage System, submitted by Shanghai Electric (Anhui) Energy Storage Technology Co., Ltd.

Award-Winning Projects in Industrial Automation:

Smart Manufacturing and Operation & Maintenance Algorithm Development for Complex Energy Equipment, submitted by Shanghai Electric Group Co., Ltd.;

LINGTENG Pipe Operation Special-Purpose Robot, submitted by Shanghai Electric Group Co., Ltd. Central Academe.

These awards underscore Shanghai Electric's frontline breakthroughs in smart manufacturing, green energy, and low-carbon technologies, demonstrating Shanghai Electric's innovative strength and leadership in the industrial sector.





## The "Blue Guardian"

of the Electromechanical Building

## TangJian

In Shanghai's bustling business district, the Electromechanical Building stands as a landmark under the management of Shanghai Electric Group Properties Co., Ltd. More than just an office space, it has been a spiritual home for generations of Shanghai Electric employees over the past 32 years.

— Interview with the 2024 Advanced Individual of Shanghai Electric Group Properties Co., Ltd.



#### **First Impressions:**

#### Steadfast and Resilient

Upon first meeting Tang, one is struck by his calm yet resolute demeanor. Standing at 1.8 meters with sharp features, his posture remains upright and commanding even as he enters his fifties.

This air of discipline reflects his early military career. In 1993, at just 18, Tang answered the nation's call and enlisted in the Shanghai Fire Brigade. During his service, he faced blazing fires and hazardous materials challenges, learning firsthand the weight of responsibility and the importance of safety. The motto "No detail in safety is too small; responsibility outweighs all" became a lifelong principle.

After leaving the military in 2006, Tang joined Shanghai Electric, initially overseeing safety at the NaturePlaza Park.

In 2020, when Electromechanical Building faced a serious staff shortage, Tang Jian once again took on the heavy responsibility of safeguarding the building. When he first arrived, the bustling scene near the Shanghai Railway Station caught his attention. However, he quickly realized that his work was centered within the walls of Electromechanical Building. His task would only be complete once the safety of the building was fully ensured.

#### **Daily Vigilance:**

#### **Meticulous Fire Safety Management**

Walking through Electromechanical Building, one can easily spot fire safety reminders on every floor, tips on "Four Capabilities Building" and "Three Gentle Reminders" placed every few steps. All of these are the results of Tang Jian's careful planning. He knows that fire safety allows no negligence, and prevention must come before the danger.

His work covers every aspect of the building's safety: maintaining and inspecting fire facilities, organizing fire drills, promoting safety awareness, handling emergencies, inspecting special equipment, and managing the automated parking system.

Every day, without fail, Tang Jian conducts floor-by-floor inspections from top to bottom, ensuring that every extinguisher, fire hydrant, and smoke detector functions properly. "Times change, and so do the demands of fire safety management," Tang says, opening a mobile app filled with fire-related public accounts such as China Fire Protection, Ministry of Emergency Management, and Shanghai Fire Services. His deep respect for safety and his thirst for continuous learning keep him highly vigilant and responsible at all times.

SHANGHAI-ELECTRIC.COM

027

## The "Blue Guardian"

of the Electromechanical Building

TangJian



#### **Critical Moments:**

#### Professionalism in Action

March 20, 2024, seemed like an ordinary workday until it became one of the greatest tests of Tang Jian's career.

During a routine inspection, Tang noticed visible cracks on a municipal firewater pipe in a hidden corner, with traces of moisture on the floor nearby. His instincts told him this could be a leak caused by pipe rupture.

He immediately contacted the property management team to inspect the pipe's interior. The check confirmed his suspicion: the pipe had indeed ruptured, disabling the outdoor fire hydrants and water pump connectors. This discovery made Tang Jian tense up. He knew all too well that if the issue wasn't handled promptly, it could pose serious safety risks.

He immediately reported the situation to the local fire and rescue brigade, providing detailed information about the location of the pipe rupture, the affected area, and the potential hazards, while requesting guidance and support. At the same time, he conducted a thorough inspection of outdoor fire hydrants, fire pump connectors, and other related facilities to ensure that each was in proper working condition. He also set up warning signs on site to remind passersby to stay safe and took preventive measures to avoid further damage from the pipe rupture. Thanks to the repair team's efforts, the water inlet pipe was promptly restored. Tang then organized personnel to test and inspect the repaired pipeline to ensure normal water supply.

#### **People First:**

#### **Building Fire Safety Awareness**

In Tang Jian's view, among the three key pillars of fire safety, human defense, physical defense, and technical defense, human defense is the most fundamental and crucial. He firmly believes that only by raising people's fire safety awareness can potential hazards be truly prevented.

During his routine inspections, Tang often spots hidden dangers that others might overlook. On one occasion, he found that an indoor fire hydrant in the building had been blocked by miscellaneous items. Though it seemed like a minor issue, he keenly realized that it could affect the hydrant's proper use in an emergency. He immediately contacted the relevant staff to clear the obstruction and stepped up inspections in that area.

Beyond maintaining fire equipment, Tang places great emphasis on strengthening people's awareness of fire safety. Before every flood season or approaching typhoon, he promptly notifies tenants to bring items from windowsills, stairways, and corridors indoors, reinforce signboards, and properly position flood and typhoon prevention materials. He also takes the initiative to educate tenants about fire safety knowledge

and escape or self-rescue techniques. During last year's severe typhoon Bebinca, tenants drove their cars out of the underground parking garage to avoid flooding. One owner parked on the ground level but forgot to close the car windows before leaving. Upon noticing this, Tang quickly contacted the security guards, covered the car with a tarp, and immediately notified the owner. When the owner arrived, he patted his chest in relief and said, "Luckily, you discovered it in time and handled it properly, otherwise my car would've been flooded!"

Thanks to the efforts of Tang Jian and his team, both the building's staff and tenants have gradually developed strong fire safety habits. They not only comply with safety regulations and use firefighting equipment correctly, but also remain calm and organized in emergencies, ensuring effective and orderly evacuation when needed.

#### **Teamwork:**

## Building a Strong Fire Safety Line Together

Electromechanical Building spans 25 floors with a total area exceeding 30,000 square meters. Its size and the complexity of daily operations make effective fire safety management no small feat. Tang Jian knows that ensuring the building's safety cannot rely on one person alone. It requires the collective strength of a team.

Behind him stands a dedicated, cooperative, and responsible group: the Third Division of the Property Management Company. Although the team consists of only five members, they manage all daily operations of the building. Manager Xia Sijing oversees the overall operation, while the others handle customer service, leasing tours, safety management, and routine maintenance. Whenever an emergency arises or staffing is short, team members step up without hesitation, tackling challenges together.

A key figure in this team is Manager Xia Sijing herself. Not only is she Tang Jian's direct superior, but also a true "comrade-in-arms". Known for her meticulous and rigorous management style, she understands that a team's strength lies in collaboration. She regularly convenes work meetings, where team members share experiences, exchange insights, and explore more efficient management methods. Under her guidance, the team has cultivated a positive, supportive environment, where members learn from one another and offer help freely. This has noticeably improved everyone's skills and performance.

"In seeing these young ladies work so hard," Tang Jian says, "being a man, there's no reason I shouldn't give my all." His words reflect his sincere admiration and gratitude for Manager Xia. He deeply respects not only her capability and sense of responsibility but also her quiet dedication to the team and the building. With her leadership, everyone feels inspired and motivated in their work.





#### Calm in Peace, Steady in Crisis

Over the years, the once hot-headed young man has matured into a middle-aged professional who understands the principle of "remaining calm in calm times and composed in crises." Tang Jian now approaches life and work with serenity, aware that challenges and uncertainties are inevitable. Yet with diligence and careful planning, problems can always be resolved.

In his "patch of responsibility" at Electromechanical Building, Tang Jian, the steadfast "Blue Guardian", has become the building's most reliable guardian. His dedication and sense of duty have earned the respect and trust of tenants and staff alike, making him a shining figure within Shanghai Electric Group Properties Co., Ltd. As time flows, guardianship remains constant. Tang Jian and his team will continue to work hand in hand, safeguarding the fire safety of Electromechanical Building for years to come. **1** 





#### A GREEN SYMPHONY FOR THE EARTH



In Tianjin Binhai New Area, the breeze from the Haihe River once carried the briny scent of industry. Now, as it passes through the Qingyuan Reclaimed Water Plant, it brings a refreshing, sweet note.

Facing rising raw water pollution, Shanghai Electric Environmental Protection Group conducted a masterful "Intensive-Efficient-Low-Carbon" orchestration: Turbidity removal efficiency significantly improved, with a 40% reduction in equipment footprint. Peak-shifting water intake and supply quality adjustments allow flexible response to fluctuating water quality, reducing equipment pressure.

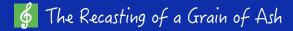
The project achieved over a 10% reduction in water energy and chemical consumption and reduced raw water turbidity by 80%. It is expected to save 100 million tons of tap water annually for Tianjin, while wastewater recycling technology will reduce 100 million tons of effluent discharged into the Bohai Sea. Once-dimmed "wastewater" has been crowned anew as the city's backup spring.

## The Descent of a Wisp of Smoke

The chimneys of Huaibei Biomass Power Plant once emitted coarse, harsh notes into the sky.

To bring these gray plumes to silence, Shanghai Electric Environmental Protection Group introduced catalytic ceramic fiber filter tubes, a dry flue gas desulfurization, denitrification, and dust removal process. Coupled with high-efficiency acid removal and catalytic denitrification, this technology performs a complete "soundproofing" for flue gas.

After this purification, chimney outlet concentrations fell to three remarkably quiet numbers: Smoke ≤ 10 mg/Nm³, SO<sub>2</sub> ≤ 35 mg/Nm³, and NOx ≤ 50 mg/Nm3, all of which surpass the latest national and Anhui provincial standards.



Today, the chimneys no longer shout. They whisper, and the sky gains a touch of clarity.

Every year, China produces tens of millions of tons of fly ash from waste incineration, once a daunting "black rest note"

Shanghai Electric Group Co., Ltd. Central Academe developed fly ash water-washing technology, efficiently separating heavy metals and dioxins. The fly ash now holds a dual identity: a high-value core material for cement and warm, durable bricks for garden paths.

Landfills breathe easier, and the city gains a small singing pathway—each step of a pedestrian resonates like a gentle chord, a subtle yet clear harmony of environmental protection.



High temperature and strong acidity once defined the phosphating production line.

Shanghai United Bearing turned the page with a medium-high temperature, low-acid phosphating process, reducing gas acidity and achieving zero wastewater discharge.

In gas treatment, a two-tier defense is in place: onsite air suction and extraction systems maintain clean production air; collected exhaust is purified with alkaline spray and filtered through high towers to ensure compliant emissions.

In wastewater treatment, a three-loop closed system is implemented: Physical oil removal → Biological degradation → Distillation and filtration. Treated wastewater meets soft water standards, fully recycled to the phosphating line, achieving zero discharge. □



# A QUIET REVOLUTION IN GRID STANDARDS WITH ZERO CARBON IMPACT

he word "cable" may sound ordinary, but it is the artery of a city. Imagine if this artery had an "environmental enhancement".
Wouldn't that be instantly impressive?
Shanghai Huapu Cable Co., Ltd., a subsidiary of Shanghai Electric, has developed such a green marvel—modified polypropylene insulated power cables, or PP cables—which effectively reduce carbon emissions and contribute to a greener urban life.

## Traditional XLPE: Many advantages, but a few drawbacks too

Most cables installed in urban areas, whether above or below ground, utilize cross-linked polyethylene (XLPE) for insulation. XLPE offers excellent high-voltage resistance and insulation performance. However, the energy consumption during its production is concerningly high. Furthermore, when the insulation ages, recycling becomes a significant challenge. Retired XLPE cables can only be buried or incinerated. On top of that, XLPE cables require thicker copper cores to carry large currents. From an environmental standpoint, these cables leave much to be desired.

## PP cables: Turning "plastic" into high-tech magic

If XLPE isn't environmentally friendly, could a different material work better? Engineers at Huapu Cable turned to polypropylene (PP)—yes, the same plastic used in takeout containers. Through dual modifications with elastomers + polar groups, PP transforms into an all-rounder in the cable world.

## No cross-linking, 40% lower carbon emissions

Unlike XLPE, which requires high-temperature cross-linking and degassing, PP is a thermoplastic.

It can be extruded directly, instantly putting the production line into low-carbon mode. In practical terms, producing 1 kilometer of PP cable reduces  $\rm CO_2$  emissions equivalent to a car driving halfway around the Earth.

#### Higher current capacity, leaner copper

PP cables have a higher temperature rating than XLPE, allowing the same conductor cross-section to carry more current. In other words, the same power can be transmitted using a smaller copper core, saving both material and cost.Recyclable upon retirement, 30% cost recovery

While retired XLPE cables are essentially discarded, PP cables can be fully recycled and put back into service. Nationwide, future recycling revenue is estimated to exceed 2.4 billion yuan.

#### A dual-use production line breathes new life into old equipment

Even more impressively, Huapu Cable did not simply scrap its old production line. Instead, it cleverly transformed it into a dual-use XLPE/PP production line, much like upgrading a phone to dual SIM functionality, instantly maximizing the factory's return on investment.

## From pilot trials to mass production, filling an industry gap

Currently, Huapu Cable's PP cables, developed for 1 kV, 10 kV, and 35 kV voltage levels, have all passed certification. With comprehensive performance reaching internationally advanced standards, China's cable technology has earned yet another "green" recognition on the global stage.



interview: "The desire to be alone yet obsessed with information is the existential anxiety of young people." These words strike precisely at the core of contemporary unease. In the information age, data surges like an unstoppable tide, sweeping the workplace into a storm from which no one can remain

bytes. To visualize this, it is equivalent to 15.64 million of China, whose resources stood at merely 2,189

In a time of highly advanced information technology and unprecedented social media activity, the scale is beyond imagination. If we pause to person, we realize how swiftly our time vanishes.

Marshall McLuhan once predicted: "Where tools extend human capacity, there human sensibility inevitably diminishes." This is an awkward yet

and regain moments of calm. Build an "information and guard your precious time and energy. More information cocoon. Let our gaze pierce the walls around us, and find our own shining coordinates in the starry sky of knowledge to preserve the pure land of independent thought.



## GREEN MOMENTUM

Create Our Future Together

A FORCE FOR ACTION

