BUSINESS

China key hydrogen market, says GE Vernova

By **ZHENG XIN**
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GE Vernova views China as a crucial market for commercializing hydrogen power, with the company's top executives pointing to the nation's unique capacity to scale up new energy technologies and its ambitious carbon neutrality goals as the primary drivers.

The US-based energy company is positioning its advanced gas turbine fleet to integrate seamlessly with China's massive buildout of intermittent wind and solar resources, proposing hydrogen as the key solution for long-term storage and grid stability.

"If there is a place in the world where hydrogen will become a reality, it is China," said Ramesh Singaram, GE Vernova president and CEO for Gas Power Asia.

Singaram said that China has already proven its ability to rapidly scale up the energy transition, a necessary prerequisite for transforming hydrogen — historically treated as a chemical commodity — into an affordable, sustainable and secure energy source for the power sector.

GE Vernova's strategy centers on pairing hydrogen-fueled turbines with renewable energy bases across the country. The goal is to maximize the efficient and sustainable use of hydrogen fuel across various application scenarios.

The company's turbine portfolio offers significant hydrogen-blending flexibility.

GE Vernova's HA-class gas turbines currently offer up to 50 percent hydrogen blending capability, while its smaller, aeroderivative LM6000 VELOX units are capable of firing on 100 percent hydrogen, providing immediate options for power producers looking to rapidly decarbonize.

China cemented its global dominance in hydrogen development last year, with total hydrogen production and consumption exceeding 36.5 million metric tons, securing its position as the world leader in the sector, according to the National Energy Administration.

China boasts over 560 hydrogen fueling stations and the world's largest fleet of fuel cell commercial vehicles, exceeding 25,000 units, said Liu Deshun, director-general of the NEA's science and technology department.

Capacity for renewable energy-based hydrogen production now accounts for over 50 percent of the global total, underscoring its significant role in the clean hydrogen transition, he said.

Xu Xin, chairman of GE Energy Investment (China) Co Ltd, emphasized the pivotal role of green hydrogen in maintaining grid stability amid the surging volume of renewables.

Xu expressed confidence that China is on the verge of a "curve-overtaking" moment, solving the critical challenges of green hydrogen's affordability and availability that have plagued its adoption elsewhere.

"The high volatility of renewable energy often leads to surplus power when supply exceeds real-time demand," he said.

"By utilizing power that would otherwise be curtailed or wasted to produce hydrogen, which can be stored long-term, we have an identical solution to an energy storage system when the grid needs power."

"I dare not say this about other countries, but I believe it is possible in China," he said.

Data released by the NEA reveal that by the end of 2024, the nation's annual hydrogen production capacity had surpassed 50 million tons, with total output exceeding 36.5 million tons, cementing its status as both the largest producer and consumer of hydrogen globally.

The deployment of large-scale renewable energy-based hydrogen production projects is also gaining momentum, particularly in resource-rich regions such as the northwestern, northern and northeastern parts of the country.

According to Xu, in China's expansive northwestern regions, where low-cost onshore wind and solar power generation is abundant, that energy could be leveraged to produce green hydrogen, which in turn functions as a mechanism for long-duration energy storage.

The stored green hydrogen would then fuel gas turbines, creating a reliable "wind-solar-hydrogen-gas" generation system to stabilize power output and ensure base-load power, he said.

In contrast, densely populated coastal economic hubs would utilize green hydrogen produced from offshore wind, powering gas turbines in load centers, strategically replacing older coal-fired capacity for decarbonization while providing essential frequency and voltage support to the grid, he added.

Evidence of this commercial strategy is already visible in Guangdong province.

Guangdong Huizhou Combined Heat and Power (CHP) plant began commercial operation last year, and successfully completed hydrogen blending commissioning in May. It is the first hydrogen-blended natural gas facility equipped with GE Vernova's 9HA gas turbines in China, said Xu.

GE Vernova's booth at the eighth China International Import Expo in Shanghai on Nov 6. PROVIDED TO CHINA DAILY

Workers assemble cars on the production line of FAW-Volkswagen in Qingdao, Shandong province, on March 25. LIANG XIAOPENG / FOR CHINA DAILY

Sino-German auto biz cooperation revved up

Expert: Both countries should enhance collaboration in technology, standards

By **LI JING**
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China and Germany are entering a new stage of collaboration in the automotive sector, moving beyond market complementarity to jointly develop technologies and standards that will help shape the global industry's transformation toward electrification and intelligence, experts and executives said.

They underscored the deepening ties between the two major automotive powers and called for joint efforts to build "a new ecosystem of global auto cooperation", at the just-concluded ninth Sino-German Automotive Conference in Changchun, Jilin province.

"Over the past decades, China-Germany cooperation in the auto sector has demonstrated strong resilience and mutual benefit," said Chen Jian, former vice-minister of the Ministry of Commerce. "As the industry enters a new stage defined by electrification and digitalization, both sides should further enhance collaboration in technology, standards and industrial chains to build a more open and symbiotic ecosystem."

Industry experts said the foundation for cooperation is shifting from traditional trade and investment to innovation-driven partnerships. Ron Zheng, a senior partner and Asia head of automotive practice at Roland Berger, said that the logic of cooperation between China and Germany is evolving as China takes a more proactive role in global industrial restructuring.

"Chinese players are becoming increasingly active in developing electric and intelligent vehicles. This is reshaping the pattern of international cooperation and providing new opportunities for both sides. China's supply chain in this field is now complete and deep, allowing it to support and empower its partners in return," Zheng said, citing Volkswagen's cooperation with Xpeng as an example.

Jochem Heizmann, former member of the Volkswagen Group board of management and former CEO of Volkswagen Group China, said the country's rapid innovation has injected new vitality into global competition.

"China's speed of innovation is impressive. Both sides can learn from each other — Germany can learn from China's speed and digital innovation, while China can still draw from Germany's experience in engineering and industrial precision."

13.01 million units
China's new energy vehicle output in the first 10 months

He also identified plug-in hybrids built on dedicated EV platforms as a promising technology, adding that combining German quality with Chinese speed will provide a strong competitive edge globally.

China's auto sector has maintained solid growth. According to the China Association of Automobile Manufacturers, the country produced 27.69 million vehicles from January to October, up more than 10 percent year-on-year, while new energy vehicle output hit 13.01 million in the first 10 months, up 33.1 percent. In October, NEV sales accounted for 51.6 percent of total new car sales, the first time that their monthly share exceeded 50 percent. China's NEV exports also surged, reaching 2.01 million units in the first 10 months, up 90.4 percent year-on-year.

Executives from major Chinese automakers said cooperation with German partners will continue to expand into new energy, smart connectivity and supply-chain resilience. The partnership has already yielded tangible results. In Changchun, Audi FAW New Energy Vehicle Co Ltd — a joint venture between Audi and China FAW group — has built Audi's first all-electric vehicle plant in China and delivered the Audi Q6L e-tron electric SUV in July.

"We aim to jointly promote the sustainable development of the global automotive industry," said Liu Yigong, president of China FAW group, one of China's leading automakers.

Analysts said the push for deeper cooperation comes as both countries accelerate their green and digital transitions. For Germany, collaboration with China offers access to a vast and fast-growing NEV market as well as local innovation in batteries and smart technologies. For China, German expertise in engineering and brand-building continues to provide valuable experience for global expansion.

"The next phase of cooperation will be characterized by joint research and development, shared platforms and co-created standards," said Zheng from Roland Berger. "This will not only help both countries maintain competitiveness, but also drive the sustainable transformation of the global auto industry."

Addressing emerging challenges such as rising tariffs, Zheng urged deeper engagement between companies and their respective governments. "Automotive development today can't rely on a single country's supply chain," he said. "Stronger integration and communication will help both sides improve efficiency and reduce risks."

Zheng added that the decades of Sino-German cooperation offer lessons for others. "When both sides share long-term goals and contribute equally, collaboration can bring benefits in technology, industry and market development."

Authorities tighten offshore tax compliance

By **CHENG YU**
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China's tax authorities have disclosed six recent cases involving individuals who failed to declare overseas income, as part of a wider effort to strengthen compliance among residents with cross-border earnings.

Tax bureaus from cities like Beijing and provinces including Fujian, Guangdong and Sichuan recently made public a series of guidance and rectification cases, urging residents to fulfill their legal tax obligations.

Zhang Wei, dean of the School of Taxation at Jilin University of Finance and Economics, said: "Reporting overseas income is not a new tax obligation. It has been a fundamental principle of China's tax system since the law was first implemented in 1980."

> "Through CRS and domestic tax systems, authorities can now match offshore financial information ..."
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> **Zhang Wei,** dean of the School of Taxation at Jilin University of Finance and Economics

Under China's individual income tax law, residents, defined as those who have a domicile in China or stay in the country for 183 days or more within a tax year, are required to declare and pay taxes on income earned both domestically and abroad. This includes income from foreign employment, interest, dividends or gains from selling overseas assets such as shares.

Zhang noted that China has expanded the scope and depth of its international tax cooperation in recent years, particularly through participation in the Common Reporting Standard, an automatic exchange of financial account information between countries. This has significantly enhanced the authorities' ability to monitor offshore income.

According to the State Taxation Administration, the CRS system now enables Chinese tax authorities to access offshore financial data from more than 100 countries and regions, with coverage expected to grow to over 150 jurisdictions by the end of 2025.

"Through CRS and domestic tax systems, authorities can now match offshore financial information with self-reported tax filings. That makes it easier to identify underreported income," he said.

Li Na, associate professor at East China University of Political Science and Law, said: "Declaring overseas income is not just a Chinese requirement. It is standard practice in most countries and regions."

Technological innovation drawing foreign investors

By **SHI JING** in Shanghai
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Foreign institutions are showing increasing interest in China, where economic growth is driven by technological innovation and the capital market is more accessible to international investors, said industry mavens and officials.

They made such comments during the Shanghai Stock Exchange Global Investors Conference on Wednesday, which was being held for the seventh consecutive year.

Paul Bateman, chairman of JPMorgan Asset Management, said that China is "a key strategic priority" for the company, where it now manages 260 billion yuan ($36.6 billion) of assets.

China has the means and will to address the current challenges in the global market and it has a solid foundation to meet growth targets in the upcoming five years. This will be translated into public companies' increasing profitability, higher stock market investment returns, and stock market stability with a longer cycle and less volatility, he said.

With China's focus on technology, services and high-end manufacturing, Bateman believes that it is now a "good time" to further tap into the Chinese market.

While overseas investors are important participants in the A-share market, holding over 3.5 trillion yuan of shares, the improving quality of A-share companies has provided quality assets for international investors, said Li Ming, vice-chairman of the China Securities Regulatory Commission.

Over one-fourth of A-share market value is now contributed by technology companies, overtaking the combined value of banks, non-bank financial institutions and property developers. More than 90 percent of the newly listed companies are from the tech sector, he said.

Colin Purdie, global chief investment officer for public markets at Manulife Investment Management, said that China's steadfast and resilient economic growth despite geopolitical tensions, its priority on technological self-reliance which is reflected in the development of semiconductors and renewable energy, as well as the country's continued efforts in market liberalization, including simplifying the investment process and removing barriers, all point to more room for growth for foreign investors.

Opportunities can be found from bonds to equities, with the former generating attractive yields with easier access provided by the bond connect program. For long-term growth-oriented investors, they can find opportunities in Chinese equities in the pharmaceutical, healthcare, artificial intelligence, renewable energy, fintech and insurance sectors. The country's demographic changes will create opportunities in retirement planning and care services, he said.

Various "DeepSeek" moments in China have woken international investors up to the fact that the country's transitional measures taken 10 years ago have resulted in many early success stories. Combined with the incremental global wealth directed to non-US assets, global investors have changed their mindset and more global capital flow into China can be expected, said Patrick Liu, head of Neuberger Berman APAC.

Tariq Ahmad, CEO of Franklin Templeton APAC, has made his fourth trip to China this year, reflecting foreign investors' rising interest in the Chinese market. International investors do not want to under-allocate or disconnect from China, which is the world's second-largest economy and moving up the value chain to the niche and high-end sectors, he said.

Ben Zhou, co-head of Warburg Pincus China, said that they are always impressed by the innovation going on in early-stage Chinese companies. They command a lot of the engineering and manufacturing capability that cannot be replaced by other economies, he said.

Industrial concentration is advancing in China as the country enters high-quality economic growth. Some multinational companies are looking for better Chinese business partners given their global strategy changes, said Wu Yibing, CEO for Temasek China.

These have brought high-quality merger opportunities for investors all over the world, enabling them to deeply participate in the structural optimization of Chinese companies. Higher activity in mergers and acquisitions can better connect the primary and secondary markets, optimizing the market exit and value discovery channels, he said.

By further optimizing the IPO, refinancing and M&A mechanisms, more capital will be directed to frontier technologies, advanced manufacturing and future-oriented industries, said Qiu Yong, chairman of the Shanghai Stock Exchange.