



An employee demonstrates a data center model in Guiyang, Guizhou province. OU DONGQU / XINHUA

Green data centers in focus

NDRC action plan stresses orderly development of infrastructure

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China is beefing up its guidance on the construction of data centers to prevent their haphazard development, the country's top economic regulator said on Wednesday.

The National Development and Reform Commission also said the larger goal is to foster the green and high-quality development of "new infrastructure", a term that refers to digital-age assets like data centers and 5G networks.

Experts said the action plan, released by the NDRC and three other central government departments is in accordance with the country's efforts to peak carbon dioxide emissions by 2030, achieve carbon neutrality by 2060 and promote low-carbon and sustainable growth.

Under the plan, 5G networks should figure in the plans for construction of transportation, energy, industry and municipal infrastructure, and efforts should be made to optimize the layout of data centers.

China will form an integrated infrastructure pattern with well-distributed green data centers and 5G networks by 2025. The utilization efficiency of electricity and renewable energy in data centers will be significantly improved, while newly built large and super large data centers nationwide will cut the power usage effectiveness — PUE — value down to 1.3, according to the plan.

The plan stated data centers in eastern and western regions will achieve a balance in computing power, and the overall utilization rate of the national data centers will obviously increase. Moreover, the utilization rate of the data centers in western parts will rise from 30 percent to more than 50 percent.

China has taken the lead over global peers in data center construction, with more enterprises looking to scale up their data centers to ensure reliability and stability of data services.

"With the rapid development of

5G, the internet of things, artificial intelligence, industrial internet and the commercial application of these new cutting-edge technologies, the demand for data processing is increasing, which has sped up the construction of data centers across the nation," said Xiang Ligang, director-general of the Information Consumption Alliance, a telecom industry association.

However, the investment in establishing data centers is enormous and these centers consume a large amount of electricity, which provides carbon emissions and environmental pollution, Xiang said, adding Chinese technology companies should utilize innovative technologies to improve data centers' operational efficiency and cut power consumption.

According to a report from China's State Grid Energy Research Institute, the electricity consumption by data centers alone in 2020 is estimated to exceed 200 billion kilowatt-hours, accounting for 2.7 percent of the country's electricity consumption.

By 2030, data center electricity consumption in China will exceed 400 billion kWh, accounting for 3.7

percent of the country's total electricity consumption, the report stated.

Data centers should increase computing efficiency, save computing energy consumption, and truly meet the needs of future smart computing, said Wang Endong, an academician with the Chinese Academy of Engineering and the principal scientist at Inspur Group, a Chinese provider of big data services.

Chinese technology firms have started to work on green solutions to reduce electricity and energy consumption of data centers. For instance, online search giant Baidu, which has morphed into a technology pioneer with a focus on artificial intelligence, said it is stepping up efforts to decrease the carbon emissions of its data centers by switching to clean energy and improving energy efficiency.

Baidu also said it will continue to reduce the energy consumption per unit of computing power based on the 2020 average PUE of 1.14 per year through technological innovation, enhanced software and hardware integration and integrated AI applications.

WTO: TWO DECADES ON

Ex-intern of WTO, now professor, takes stock of China's evolving role

By ZHANG YUE
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Henry Gao, the first Chinese lawyer in the World Trade Organization that China joined in 2001, said the world's second-largest economy has not only implemented its accession commitment well but made a notable contribution to helping improve the multilateral trading system.

Gao, now a law professor at Singapore Management University, said China has metamorphosed from a "rule-taker" to a responsible contributor to the multilateral trade system.

In 2002, Gao became the first Chinese lawyer ever to work at the WTO's headquarters in Geneva, when he joined the organization as an intern. Over the past two decades, Gao went on to switch careers, holding a variety of roles from lawyer to law professor.

En route, he sustained his abiding interest in, and research into, China's interactions with the WTO — something that has produced fascinating insights.

Since 2009, Gao has been serving as a member of the Advisory Board of the WTO Chairs Program at the organization's Secretariat.

He said: "China has been doing notably well in fulfilling its WTO commitment, particularly regarding tariff reductions and lowering non-tariff barriers.

"To illustrate, upon joining the WTO, China promised to lower import tariffs on automobiles to 25 percent, but now the automobile tariff level is about 15 percent.

"The non-tariff barriers are more about improvement in its business environment. For example, China has been reducing the negative list for foreign investment, particularly in free trade zones, and increasing the transparency for good governance."

Back in 2001, Gao was a law student at Vanderbilt University in the United States. It was at that time that he applied for a WTO internship as China officially joined the organization.

WTO jobs were only open to nationals from member economies. So, until 2001, there were no Chinese nationals among WTO staff members.

Gao's job application was successful, earning him a place on the Appellate Body, known as "the Supreme Court" of the WTO.

"I was the first Chinese intern in the organization, and people were very friendly and wanted to find out more about China from me."

For the first three months, Gao was responsible for establishing links between the Beijing WTO Center and the WTO's headquarters. He recalled that during a conversation with Supachai Panitchpakdi, the then WTO director general, the latter evinced deep interest in China's experiences and views on joining the WTO.



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Henry Gao, the first Chinese lawyer in the WTO

Gao's stint at the WTO headquarters lasted one year. But his participation in WTO-related affairs continued. From the perspective of a lawyer, Gao said he thinks China's understanding and interpretations of WTO regulations have improved tremendously since 2001. "China has learned how to use the legal terms in practical negotiations and communications."

Asked if increasing regional trade agreements might weaken the WTO's negotiating power, Gao said any regional trade agreement, even a very broad one, cannot replace the WTO as "the latter is currently the only trade agreement that covers all the big players — China, the United States, the European Union, and Japan".

On global efforts in advancing WTO reform, Gao said he believes China's active participation will help stabilize global expectations. "Any new reform steps will be much more feasible with active participation from China", given that it is the world's second-largest economy, he said.

Briefly

Plastics sector posts higher revenue, profits

China's manufacturers of plastic products posted higher revenue and profits in the first 10 months of the year, official data showed. The combined operating revenue of the country's plastics sector totaled 1.77 trillion yuan (\$278 billion), jumping some 15 percent year-on-year, according to the Ministry of Industry and Information Technology. Manufacturers of plastic products raked in 98.39 billion yuan in profits in the first 10 months, up a tad year-on-year. Their output rose nearly 9 percent year-on-year to 65.22 million tons in the January-October period, the ministry said.

Non-cash payments grow steadily in Q3

Non-cash payments handled by Chinese banks maintained steady growth in the third quarter of this year, with mobile payments sustaining growth momentum, according to a central bank report. Non-cash payments, involving bank cards, online payment vehicles, commercial papers, credit transfer and other settlements, stood at around 1.1 quadrillion yuan (\$174 trillion) in the third quarter, up more than 6 percent year-on-year, the People's Bank of China, the central bank, said in the report. Of the total, mobile payments sustained an upward trend to 126.81 trillion yuan, up nearly 9 percent year-on-year.

XINHUA

Hainan Airlines core biz transferred to investor

By ZHU WENQIAN
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China's fourth-largest carrier Hainan Airlines announced on Wednesday that it has transferred its core aviation business to Liaoning Fangda Group Industrial Co Ltd, its strategic investor, as the carrier's parent company HNA Group is in the process of going through bankruptcy and restructuring proceedings.

The airline said since a court's final ruling on Oct 31, its reorganization process has been going on smoothly, and substantial progress has been made in risk mitigation, according to its statement released on Wednesday.

Gu Gang, an official appointed by the local government to resolve the debt risk of HNA, will no longer serve as the Party secretary of the group. Next, a joint working group will perform the duties of guidance, coordination and supervision, and continue to implement the group's bankruptcy and restructuring plans and other related risk management work, the statement said.

Liaoning Fangda Group has been a Chinese conglomerate involved in business sectors such as carbon,



Hainan Airlines planes seen at the international airport in Haikou, Hainan province. YANG GUANYU / XINHUA

steel and pharmaceuticals. Earlier, Liaoning Fangda won the bid to become a strategic investor of Hainan Airlines over Shanghai Juneyao Group Co Ltd, parent of Juneyao Airlines, and Fosun International, a major Chinese industry player in the tourism sector.

In March, Hainan Airlines announced an annual loss of 64 billion yuan (\$10 billion) for 2020, the highest loss ever by a listed Chinese company. In January, HNA said it had received notice from the Hainan High People's Court that creditors had repaid bankruptcy as it failed to repay debts.

Since 2010, HNA had been making aggressive inroads into expanding its assets overseas and the total acquisitions at one point exceeded \$50 billion. It acquired stakes in around 40 major companies, including Deutsche Bank AG and Hilton Worldwide Holdings Inc.

Later, HNA's acquisition spree drew scrutiny from Chinese and foreign regulators. It started to face mounting debts due to stricter controls and liquidity concerns, and

began seeking buyers for its assets.

"Hainan Airlines has been a major carrier in China and it has a fleet of about 600 aircraft. The quality of the airline business itself is good, and there is no significant problem in the airline's operations and its safety management," said Lin Zhijie, an aviation industry analyst and a columnist at Carnoc, a major civil aviation website in China.

"HNA's troubles are mainly caused by the huge debts in the group's other sectors. After restructuring and squeezing out bubbles, it should still be a healthy asset. Yet, the company still faces several challenges, including huge debts and the COVID-19 unprecedented negative impact on the aviation sector," Lin said.

"In addition, HNA's internal governance problems, such as a lack of internal controls and aggressive investment, still need to get further corrected. The group also needs to consider reducing losses as it owns a large number of widebody aircraft," he said.

Typhoon-resistant offshore wind farm goes online

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The world's first typhoon-resistant floating offshore wind turbine was connected to the grid on Tuesday in Yangjiang, South China's Guangdong province, amid the country's ramped-up efforts to transition to green energy.

The project, Sanxia Yinling Hao, consists of the typhoon-resistant floating offshore wind turbine and China's first floating wind turbine platform, with an installed capacity of 5.5 megawatts per unit, according to its operator, China Three Gorges Corp.

It signals that China has taken the global lead in research, manufacturing, installation and operation of large-scale typhoon-resistant floating offshore wind turbines, said the company, which is also the developer of the world's largest hydropower project, the Three Gorges Dam, which broke ground in 1994 in Hubei province.

The unit is designed to resist strong waves seen on average once every 50 years and is therefore able to resist the strongest of typhoons, it said.

Analysts said that as China's push to reach carbon neutrality by 2060 draws increasing attention to wind power, moving wind farms to deeper waters helps eliminate some of the challenges facing offshore wind power facilities and helps expand turbine fleets.

The platform will make a contribution to China's exploration of typhoon-resistant technology for offshore wind turbines, said Wang Ziyue, an analyst at

research firm BloombergNEF.

"While the development of floating offshore wind turbines in China is more than 10 years behind developed countries, China is likely to overtake other countries in the sector with rich offshore wind resources," he said.

"Despite the fact that the cost of floating offshore wind power projects is still relatively high, which limits their large-scale development, many domestic offshore wind equipment suppliers and developers are actively exploring the sector and accumulating experience. Floating offshore wind turbine costs are likely to drastically decrease once we achieve scale production," Wang said.

Wang added that many supportive preferential policies from national and local governments will also further facilitate floating offshore wind power projects in China.

China Three Gorges Corp said it has been pushing forward its new energy projects to ensure sufficient energy supply in the country, which will also facilitate the government's ambition to peak carbon emissions by 2030 and achieve carbon neutrality by 2060.

The company saw its monthly generating capacity achieve a record high of 49.5 billion kilowatt-hours in September, contributing to 6.7 percent of the country's total power production. The country's total installed capacity of offshore wind power was 9 gigawatts by the end of 2020, ranking second globally. China's new offshore wind capacity reached 3.06 GW in 2020, approximately half the global total.