

# Preferential Tax Policies Refined to Boost Innovation

## Policy

By LI Linxu

In its latest moves to encourage enterprise innovation, China has extended

and refined a series of preferential tax and fee policies.

Of particular note is that the country pledges to further improve its policy on the pretax deduction of R&D expenses of enterprises, according to a notice recently released by the Ministry of Finance (MOF) and the State Tax-

ation Administration (STA).

Starting from January 1, 2023, if the actual R&D expenses of eligible enterprises haven't formed intangible assets and are included in the current profits and losses, an additional 100 percent of such R&D expenses will be granted for the pretax deduction.

If their actual R&D expenses have formed intangible assets, 200 percent of the cost of such intangible assets is entitled to be amortized before tax, according to the notice.

As an important inclusive policy in the systems of sci-tech innovation policies, pretax deduction of R&D expenses of enterprises has gained significant results, said Zhu Zhongming, vice minister of finance, adding that it has played a positive role in encouraging enterprises' spending on R&D.

The policy is a follow-up to this year's government work report, which vowed to improve preferential tax and fee policies, and extend and further refine policies on tax and fee cuts,

tax rebates, and tax deferrals as the situation requires.

The additional pretax deduction of R&D expenses will become a long-term institutional arrangement, according to an executive meeting of the State Council held last month.

Experts believe that China's extension and implementation of a package of preferential tax and fee policies will further benefit market entities, boost market confidence, and bolster enterprises' spending on R&D.

Statistics show that, under the preferential tax policies to support sci-tech innovation, the amount of tax and fee cuts increased by 28.8 percent on average annually during 2018-2022.

These policies have been effective in stimulating enterprises' innovation momentum, said Luo Tianshu, chief accountant of STA, noting that during 2018-2022, the R&D spending from enterprises registered an average annual growth rate of 25.1 percent.



A staff member is operating the automation equipment in a hi-tech company's new materials R&D lab, Hangzhou, Zhejiang province. (PHOTO: XINHUA)



A centralized photovoltaic power station in Tongwei county, Gansu province. (PHOTO: XINHUA)

# Energy Revolution Picks up Speed in Rural Areas

By LI Linxu

As an important initiative to advance rural revitalization, energy revolution in rural China is gaining momentum with a pilot scheme to promote the development of renewable energy.

The pilot scheme is tasked with establishing diversified energy supply systems, promoting clean and effective energy utilization, boosting the smart level of energy use, and improving services for clean energy projects, according to a notice jointly released by four government bodies including the National Energy Administration (NEA) and the National Rural Revitalization Administration (NRRRA).

By 2025, renewable energy is expected to account for more than 30 percent of the total consumption of primary energy in pilot counties, and more than 60 percent of the increase in their primary energy consumption, according to the policy.

Relevant departments from provincial-level governments are responsible for recommending pilot counties and submitting their development plans for evaluation and approval by the end of May this year.

In their development plans, the sub-

jects of energy supply revolution, energy consumption revolution, energy technology revolution, and energy system revolution in rural areas have to be covered in detail.

Pilot counties are urged to fully leverage local advantages of energy resources, innovate the development and utilization models of renewable energy, and promote green development in rural areas.

Under the pilot scheme, the investment modes, land use mechanisms, and income distribution patterns of renewable energy projects will be optimized in rural areas, so as to expand employment opportunities and boost the income of farmers.

The policy is a follow-up to the 20th CPC National Congress report, which vowed to promote clean, low-carbon, and high-efficiency energy use, and thoroughly advance the energy revolution.

In recent years, China has rolled out a series of policies and measures to promote the development of renewable energy.

China has said it aims for a 50 percent increase in renewable energy generation during 2021-2025, with much of this to be installed in rural areas.

# NEV Industry Races Ahead into New Era

By LIU Yin & CHEN Chunyou

In 2022, Chinese manufacturers delivered a total of 6.8 million electric cars and plug-in hybrids. These automobiles accounted for 25.6 percent of China's overall vehicle sales in 2022, surpassing the goal of 25 percent set for 2025 in the national plan. This was something frequently mentioned and applauded by participants at the China EV100 Forum held in Beijing from March 31 to April 2.

At this forum, participants from central departments, research institutes, and car manufacturing companies gave their insights on promoting the high-quality growth of the new energy vehicle (NEV) industry.

The NEV market is expanding,

but its development still faces some challenges, said Wan Gang, president of the China Association for Science and Technology. For example, the current product performance and quality cannot meet the consumers' demand for a full day's use in all applied scenarios.

Vice Minister of Industry and Information Technology Xin Guobin, said the global NEV industry is entering a new development period, and some technical challenges need to be solved together, such as improving vehicle safety and low-temperature adaptability, and ensuring the reliability of autonomous driving systems.

In addition, Xin stressed the importance of a stable supply of upstream resources, such as lithium, co-

balt and nickel, for the high-quality development of this sector, while calling for increasing the charging facilities in residential communities, expressways, and rural areas.

Xiangli Bin, vice minister of science and technology, said the Ministry of Science and Technology (MOST) will continue promoting integrated innovation between NEV sectors and related technology fields, such as hydrogen, energy storage and smart grid, and intelligent transportation, while encouraging automobile enterprises to cooperate with spare parts enterprises and academic organizations.

An Conghui, chairman of Geely Auto Group said the innovation ability of Chinese NEV enterprises has been greatly enhanced by strengthen-

ing original innovation.

An said vehicle electrification and intelligence have created more demands and produced more application scenarios. To enhance their market competitiveness, NEV enterprises have increased product attributes in environmental protection, and energy efficiency, which in turn expands the NEV industrial pattern.

In order to sharpen industrial strengths, MOST will continue strengthening investment in basic research and applied research in the NEV sector, increase support for technological frontiers, such as all-solid-state batteries, and mobile resources to overcome technological challenges in operating systems and basic tool chains, added Xiangli.

# Building a Shared Future for Maritime Community

By Staff Reporters

As the world's oceans boast abundant resources, they continue to grow as an important engine for economic development.

At the 2023 International Forum on Building a Maritime Community with a Shared Future on April 1 in Beijing, heads of universities specializing in marine science and technology engaged in a discussion on promoting shared maritime development, marine equipment & technology, as well as sustainable development of the ocean economy through sci-tech advancements.

Yao Yu, president of Harbin Engineering University (HEU), expressed

the significance of promoting talent cultivation, technological innovation, open cooperation and intercultural communication to support the global ocean industry. He mentioned HEU has been contributing to low-carbon and AI research in support of a shared future for oceans.

Zhou Dawang, vice president of Xiamen University, highlighted that sci-tech innovation is the driving force for the development of the ocean economy. As such, China should advance the integration of sci-tech into industries and perfect the sci-tech innovation chain to lead, empower and serve ocean industries.

Currently, the application of AI, quantum information, mobile commu-

nication and other new-generation information technology is accelerating, while new manufacturing technologies including digitalization and new materials, are transforming the shipping and maritime industry, said Xi Lifeng, vice president of Shanghai Jiao Tong University.

He proposed that universities should establish a broad interdisciplinary system to enhance the original innovation capability for the ocean industry and facilitate the commercialization of relevant sci-tech achievements.

In addition, Chinese universities should further promote international cooperation, said Liu Yong, vice president of the Ocean University of China,

adding that universities can take an active part in the global marine sci-tech innovation network.

Rational exploration and utilization of the ocean is the key to solving global challenges such as climate change and environmental pollution. Wu Chaozhong, vice president of Wuhan University of Technology, said that building a sound marine ecology is the core task of building a marine community with a shared future.

Wu added that universities should focus on deep-sea fields, and give full play to the unique advantages of ship and sea engineering in maintaining ecological balance and mitigating the side effects of climate change.

# Hainan FTP Gathers Momentum

By CHEN Chunyou

Five years have gone by since the central government announced its support for building Hainan province into a free trade port (FTP) in 2018. In that time, the central ministries and enterprises have actively introduced policies and mobilized resources to support Hainan's development.

The latest supportive move was made by the Ministry of Science and Technology (MOST), to approve establishment of the National Tech Transfer Center in Hainan (the center) in 2022.

On March 28, 2023, the unveiling ceremony of the center was held in Haikou, the capital city of Hainan, mak-

ing it the 12th state-level tech transfer center in China. It will be operated by the China General Technology (Group) Holding Co., Ltd., a centrally administered state-owned enterprise.

Relying on Hainan's innovation advantages and its high-tech industrial resources in medicine, green technology, and intelligent manufacturing, the center aims to build an international technology transfer service platform, while accelerating the construction of Hainan FTP in this process.

The center is expected to become a model of the pilot system for cross-border free flow of technology and a hub for technology trade service industry clusters by 2025.

# AI-enabled Construction, a Smart Trend

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There are many other cases that have upgraded construction using AI in China.

The intelligent rebar-tying robots that replaced manual work in the construction site of Jindijuyuan Community in Shanghai, recorded three times higher efficiency than before.

In its pilot, an intelligent construction project dubbed "84-mu test field", property developer Country Garden introduced robotic construction and BIM. On the project's site, there have been various types of robots to help produce

concrete, decorate rooms, and transport building materials.

China is also advanced in the application of AI vision, according to Yu Xiaohui, president of the China Academy of Information and Communication Technology.

The technology, which continuously, automatically processes and analyzes image or video data through deep learning methods, can be used in construction to perform real-time inspection and monitoring, especially in such tasks as structural component recognition, and unsafe behavior and status recognition, said Yu.

## Policy implementations

In recent years, there have been an introduction of policy portfolios that facilitate intelligent construction within China.

In July 2020, a series of government agencies including the Ministry of Housing and Urban-Rural Development, jointly released guidelines to promote the synergistic development of intelligent construction and new building industrialization.

In March 2021, "Development of intelligent construction" was added to the national "14th Five-Year Plan" outline. Later in January 2022, the national

housing and urban-rural construction work conference took promotion of the collaborative development of intelligent construction and new building industrialization as one of the key tasks for the transformation and upgrading of the construction industry. The 14th Five-Year Plan for the Development of the Construction Industry also proposed to accelerate the synergistic development of intelligent construction and new building industrialization.

In November 2022, 24 cities including Beijing, Tianjin, Chongqing, Guangzhou, Shenzhen, Shenyang, Nanjing, and Hefei were selected as the pilot cities for intelligent construction, with a pilot period of three years. It is worth mentioning that this is also the first group of intelligent construction pilot cities in China.



The container terminal of Xiuying Port in Haikou, Hainan province. (PHOTO: VCG)