

Energy revolution garners global attention



Thousands of people attend sustainable development forum in the city of Taiyuan

By YUAN SHENGGAO

Shanxi's energy revolution campaign and sustainable growth once again garnered great attention from the international community as nearly 5,800 representatives from 40 countries attended a forum in Taiyuan, the capital city of this North China province last week.

The event, the 2023 Taiyuan Energy Low Carbon Development Forum, ran from Sept 6 to 8. Centering around the theme of "smart energy for a green and win-win future", the event consisted of a summit forum, four international conferences, 11 parallel symposiums and two sub-events featuring Shanxi's development in the energy industry and presenting investment opportunities.

The landmark achievements of the forum included eight memorandums of understanding and agreements of intent for forging or deepening ties between cities in Shanxi and the rest of the world; the release of a white paper on digitalized energy development and 18 other documents; and the signing of agreements among enterprises.

According to the forum's organizers, Shanxi's enterprises, development zones and local governments at the city or county level had signed agreements with businesses from China and across the world on 52 investment projects with pledged investments totaling 62.06 billion yuan (\$8.52 billion).

The forum was the highest-profile and largest-scale international event held in Shanxi this year and was also an important international event in China's energy industry.



Representatives from 40 countries share their insights into the latest developments of the energy industry at the 2023 Taiyuan Energy Low Carbon Development Forum. LI ZHAOMIN / FOR CHINA DAILY

Lan Fo'an, secretary of the Shanxi Provincial Committee of the Communist Party of China, introduced the latest development of Shanxi's energy revolution campaign at the event's opening ceremony.

He said that Shanxi is a flagship province in China's energy revolution strategy. The local campaign is aimed at promoting an energy industry transformation toward the direction of cleaner and more efficient operations, ensuring national energy supply, safeguarding national energy safety and contributing solutions to global climate change.

China's solutions to global warming, of which Shanxi's practices in energy revolution are an important part, were praised by a number of foreign dignitaries attending the forum. They included Teuea Toatu, vice-president of Kiribati; Korn Dabbaransi, former deputy prime minister of Thailand and current president of the Thai-Chinese Friendship Association; and Horace Chang, deputy prime minister and minister of

national security of Jamaica. They also expressed their intentions to work with China on improving the global energy governance system.

Experts and industry insiders at the forum shared their insights into the latest developments of the energy industry and proposed suggestions to promote sustainable growth.

At one symposium, Zhang Guobin, an expert and official from the National Forestry and Grassland Administration, highlighted the importance of carbon sinks in helping China with its goals of reaching peak carbon and carbon neutrality.

Carbon sink is a technical term that refers to anything that absorbs more carbon from the atmosphere than it releases — for example, plants, the ocean and soil.

"Stabilizing the reserves of forests, grasslands and wetlands is the most crucial part of China's plans for peak carbon and neutrality," Zhang said. "This requires new zoning and utilizing new management models for our land resources."

He also talked about the role of China's carbon trade in helping to improve carbon sink capacity.

China launched a nationwide carbon trading system in December 2017, in an effort to establish a national carbon market that ranks among the world's biggest.

Under the scheme, the demand side — mostly in the energy and emission-intensive industries — is assigned emission quotas and those producing more than their share of emissions are allowed to buy unused quotas on the market from those engaged in developing carbon sink capacities, or even those that cause less pollution. On the other hand, the supply side reaps economic benefits through selling quotas.

This practice can motivate enterprises to reduce their emissions to lower their costs and suppliers to enhance their carbon sink capacity, according to Zhang.

Shanxi's officials and business representatives also shared their best-

practice cases in assisting low-carbon development.

One practice is the promotion of digital and intelligent technologies to upgrade coal mines toward the direction of cleaner and more efficient operations.

An official attending the forum said that Shanxi is now home to 46 intelligent coal mines and 1,161 intelligent mining shafts, which means that more than 80 percent of the province's coal output is from these advanced facilities.

Shanxi is also accelerating development in new and clean energy sectors such as solar and wind power, hydrogen and coal-bed methane.

Latest statistics show that the installed capacity of power generation facilities using new energy resources reached 54.62 million kilowatts, accounting for 43 percent of Shanxi's total.

At the forum, Zheng Peng, chairman and president of Pengfei Group, talked about the booming development of the hydrogen industry at his

company and in the Shanxi city of Lyuliang, where the company is based.

Zheng said his company used to be a major coal producer in Lyuliang, with its current coal output still standing at about 30 million metric tons a year.

The company has diversified its business over recent years, with operations now covering such sectors as coking; production of methanol, liquefied natural gas, synthetic ammonia and hydrogen; logistics and cultural tourism.

"We are currently one of the leading hydrogen producers in Lyuliang, with an annual capacity of 20,000 tons of high-purity hydrogen," Zheng said.

But that capacity is only the beginning of a planned superlarge industry cluster by Pengfei. "We are investing about 78 billion yuan in developing a hydrogen industry park, which is expected to generate an annual output worth 180 billion yuan when it is fully operational," said Zheng.

He noted that this gigantic facility features recycled resources and the utilization of clean energy.

"In the facility, the hydrogen will be generated from coking gas," Zheng said. "And the electricity supply will be from our own solar and wind farms."

Pengfei's hydrogen industry chain, which includes 100-plus hydrogen-filling stations and a plant that can assemble 300,000 hydrogen fuel cell heavy-duty trucks every year, is to create more than 35,000 jobs.

The city of Lyuliang is a hydrogen industry hub in Shanxi, ranking first in terms of output in recent years. It is also a pioneer in the development of hydrogen in China as a new source of energy.

During the United Nations climate change conference, known as COP27, held in Sharm el-Sheikh, Egypt, on Nov 14, 2022, the practices by Lyuliang in hydrogen energy development were shared as a case study among participants.

He Kai and Zhang Yi contributed to this story.

Shanxi's low-carbon innovations impress tour group

By YUAN SHENGGAO

On the sidelines of the 2023 Taiyuan Energy Low Carbon Development Forum, 16 foreign youth representative from 11 countries took a tour of Shanxi, to learn about the province's latest in low-carbon transformation.

The event, organized by the Global Young Leaders Dialogue program, is a part of the 2023 GYLD China Tour. The program was jointly initiated by the Center for China and Globalization and the Academy of Contemporary China and World Studies.

The members of the GYLD Shanxi tour were young people from various countries who are based in China.

They arrived in Taiyuan, capital city of Shanxi province, on Sept 5. After attending the Taiyuan Energy Low Carbon Development Forum's opening ceremony and summit forum on the morning of Sept 6, they embarked on a journey that covered cities like Taiyuan, Jinzhong and Yangquan.

The energy industry was the focus of this four-day tour.

At the forum, they got an initial glimpse into the latest developments of the industry in Shanxi and of the wider world.

"At the forum, we were offered an opportunity to learn about the latest dynamics and technologies in this industry in Shanxi and the world," said Mohammad Asrafal Alam from Bangladesh. He is currently an associate professor at the School of Chemical Engineering at Zhengzhou University in Henan province and co-founder of the Bangladesh Junior Academy of Sciences.

During the afternoon tour they



Clockwise from top: Members of the GYLD tour pose for a photo on Sept 7 after attending a symposium. Tour members visit Taiyuan Heavy Machinery Group on Sept 6. Tour members visit a laboratory at Xinyuan Coal Mine on Sept 7. PHOTOS BY SU HANG / FOR CHINA DAILY

were able to look in detail at some of the technologies on offer.

They visited a photovoltaic panel plant at Jinneng Clean Energy Technologies, a company in Jinzhong city.

Jennifer Courtney Holstein from the United States said the level of automation and intelligent operations at this plant were beyond her expectations. And she noted that Shanxi has played an important role in promoting China's low-carbon development.

Holstein is the head of human resources at Pingo Space, an innovative educational institute based in Beijing.

In the county of Shouyang, they visited Xinyuan Coal Mine, a subsidiary of coal-mining giant Lu'an Group, to see how coal mines in Shanxi are going smart.

With the use of such digital technologies as cloud computing, 5G and the internet of things, mining in Xinyuan has basically become automated, with such operations as coal-cutting and conveying remotely controlled at the company's coordination center.

At the center, workers showed them how to use a push button to start and control a heavy-duty coal-cutting machine.

"It was definitely a shock to me when I saw the heavy machine could be operated remotely and automatically," said Atchike Desire Wade from Benin. He is now a lecturer at the School of Civil Engineering and Architecture at Taizhou University in Zhejiang province.

"Such technologies and machines mean greater safety and efficiency for coal mines," he said.

"I hope the equipment can be exported to my home country."

When sharing his impression of Shanxi's energy industry with other members, Yasir Masood from Pakistan said: "In Shanxi, and in China, the energy industry is now totally different from what we thought.

"The transformation is still going on, and China will continue to bring us surprises."

Masood is a doctoral candidate at Beijing's University of International Business and Economics.

In addition to visiting energy-related enterprises, the group also visited famed Shanxi tourist destinations like the ancient city of Pingyao, to better understand the culture and history of Shanxi province.

Zhang Qi contributed to this story.

Industrial zones, parks spur economic growth

By YUAN SHENGGAO

Shanxi's development zones and industrial parks are showing their increasingly important role in attracting investment and promoting economic transformation and growth, as they recently welcomed a great number of projects.

These zones and parks simultaneously held their project signing, construction and production ceremonies on Aug 31.

Lan Fo'an, secretary of the Shanxi Provincial Committee of the Communist Party of China, was present at the Jinzhong National Agricultural High-Tech Zone, the main venue of the ceremonies.

When addressing the Jinzhong ceremony, Lan said investment in fixed assets is one of the major drivers to push Shanxi's economy onto a fast track of development and promote local economic transformation. He added that the boom in investment is also a show of confidence from the business community.

This was the third time this year for Shanxi's development zones and industrial parks to hold such ceremonies.

The Aug 31 event saw the signing of agreements on 263 investment projects, the groundbreaking for 231 projects and the operation of another 199 throughout the province.

The zones and parks in Shanxi held this year's first events for projects on Feb 22, with the signing of 303 projects, the launch of

310 and operation of 300.

The second events were held on May 29. The zones and parks in the central city of Jinzhong were the shining performers on that occasion, securing a total of 22 projects with pledged investment totaling 14.9 billion yuan (\$2.05 billion). They also saw the launch of 23 projects with a total investment of 5.14 billion yuan and the operation of 21 projects with a combined investment of 7.67 billion yuan.

Many of the projects launched recently in Shanxi are crucial facilities to improve the basic infrastructure system in the province, especially those related to transport, environmental and livelihood improvements.

A highway linking the city of Datong and Hunyuan, a county under Datong's administration, is one such project. It is designed as a major transport facility in the Datong Economic and Technological Development Zone.

A key part of the project, a bridge with a main span of 120 meters, was successfully installed on Sept 8. Extending over a railway line, the bridge's installation was a challenging task because the operation of the railway could not be interrupted, according to Zhu Rijie, deputy chief of the development zone.

He noted that the completion of this bridge can ensure that the Datong-Hunyuan highway will become operational as scheduled.

Chen Junqi contributed to this story.



The bridge built by China Railway 15th Bureau Group is part of a highway linking Datong and Hunyuan. RUAN YANG / FOR CHINA DAILY