

## INSIGHTS

## Uniting for Successful Asia-Pacific Cooperation

## Voice of the World

By Staff Reporters

At the 30th Asia-Pacific Economic Cooperation (APEC) Economic Leaders' Meeting held in San Francisco recently, Chinese President Xi Jinping called on APEC members to stick to innovation, openness, green and inclusive development in promoting regional cooperation in order for the region to usher in another "golden 30 years."

Since the establishment of the economic leaders' regular meeting mechanism, China has been calling on APEC members to stay committed to innovation-driven development, and create new drivers of growth in the Asia-Pacific region.

## Creating environment for sustainable development

"We must harness technological and economic progress to continue to unleash the enormous potential and tremendous dynamism across our region, spur economic growth, as well as to address all environmental challenges, including climate change," says the *Golden Gate Declaration*, adopted during the APEC meeting.

China is in an important position in regional technological cooperation, especially in the fields of digitalization, telecommunications and renewable energy, and it will make positive contributions



The Fuxing bullet train runs on the Yuanjiang Bridge of the China-Laos railway in Honghe, southwest China's Yunnan province. (PHOTO: VCG)

to regional technological innovation progress and sustainable development, said Ronnie Lins, director of the China-Brazil Center.

In terms of digital transformation, China is a world leader with vast experience to share with APEC members, according to Sean Randolph, senior director of the Bay Area Council Economic Institute.

Last month, President Xi replied to a letter from Cuban scientist Pedro A. Valdes-Sosa, stressing that international cooperation in science and technology is

a major trend and all countries need to work jointly to promote peace and development for humanity through sci-tech innovation.

Echoing this view, Valdes-Sosa believes that only by allowing scientists to communicate with each other and the global community to engage each other can human progress be promoted.

## Addressing global challenges

Given the increasingly grave challenges such as climate change and natural disasters, working together to addressing global challenges was highlight-

ed at the meeting.

"It has never been more important to work on building greater resilience for our businesses, better living standards for our communities, and [creating] a sustainable future," said Dominic Ng of East-West Bank, the 2023 Chair of APEC Business Advisory Council.

U.S. Secretary of Treasury Janet Yellen said at the 2023 APEC Finance Ministers' Meeting, "The actions we take matter, not only for our economies and people but also to address the global challenges the world faces," according to *The Straits Times*.

Vitaly Mankevich, president of the Russian-Asian Union of Industrialists and Entrepreneurs, told the meeting that the concept of openness and cooperation advocated by China is in line with the trend of global technological innovation cooperation and can benefit all participants. It is crucial for countries to strengthen coordination and cooperation in the field of science and technology to jointly address the challenges facing mankind, he added.

China is a key participant in APEC's efforts to achieve fair, just, sustainable and inclusive development, said Constanza Jorquera Mery, scholar at University of Santiago who specializes in international political issues. She said that China is committed to promoting technological innovation, addressing climate change, as well as trade facilitation, which will help enhance the Asia-Pacific region's resilience to global challenges.

## BRI Plays Significant Role in Switching to Renewables

Edited by QI Liming

Since the launch of the Belt and Road Initiative (BRI) in 2013, the endeavor to build a community with a shared future for mankind has been strengthened. As climate change and energy issues continue to be among the prime concerns, it has been China's constant objective to help its BRI partners develop new energy industries.

## Adding impetus to the switch to renewables

According to a report from the Green Finance and Development Center (GFDC) at Fudan University in Shanghai, in the first half of 2023, "green engagement" construction and investment in solar, wind and hydropower, accounted

for the largest share of energy engagement seen during any period to date.

In H1 2023, 41 percent of energy engagement via the BRI went to solar and wind, while 14 percent went to hydropower. China's engagement in wind, solar and hydropower amounted to around 4.8 billion USD, compared with 3.8 billion USD in H1 2022. Strong green performance was in large part due to a fall in oil and gas-related projects.

"If we continue at this pace, 2023 would be the year with the largest green energy investment," GFDC Director Christoph Nedopil told Reuters.

As time moves to this November, the latest report released by Wood Mackenzie, a global energy and natural resources consultancy, said that Chinese

companies have made significant strides in the BRI's overseas power projects over the past decade. With an estimated investment value of around 200 billion USD, over 300 projects of 128 GW of power have been installed, equivalent to 1.3 times Australia's installed capacity in 2022.

The *South China Morning Post* analyzed the report and pointed out that, overseas renewable power projects are expected to become a growing focus of the BRI, as China pledges to put an end to developing new coal power projects abroad.

Renewable projects account for nearly 60 percent of 80 gigawatts (GW) of overseas power capacity expected to come online under the BRI. The share of renewables in newly built capacity under the BRI plan has increased to 47 percent in 2022 from 19 percent 10 years ago.

"China is changing its overall strategy, so we expect to see more focus on renewables of the BRI," said Alex Whitworth, vice president and head of Asia-Pacific power and renewables research at Wood Mackenzie in the report.

The Wood Mackenzie report seems to echo what was predicted by an article released on Brookings website in 2018.

## Moving BRI consumption beyond fossil fuels

As early as 2018, Daniel Araya, senior fellow with the Centre for International Governance Innovation (CIGI), issued an article on Brookings website. The article forecast that the BRI is poised to transform the clean energy

industry.

"What seems clear is that clean energy is a 21st century industry that China is well positioned to play a pivotal role, and the BRI will be critical to moving global energy consumption beyond fossil fuels," Araya predicted.

UK-based Carbon Brief covering energy and policy also focuses on the low-carbon energy development of the BRI. Since China has stated an intention to pivot the BRI towards low-carbon energy development, some leading experts have shared their thoughts on Carbon Brief website this October.

Kevin Gallagher, director of the Boston University Global Development Policy Center, said that as the BRI moves into its second decade, China can solidify its pivot toward low-carbon development in the Global South.

Yasiru Ranaraja, founding director of the BRI Sri Lanka, said that China's commitment to shift the BRI towards low-carbon energy development has significant implications for climate action in the coming decade.

"When we delve into the context of global climate efforts, we encounter a historical divide between developed and developing nations regarding climate justice and the debate over the common but differentiated responsibilities principle in climate action," he said.

China, through the BRI, has emerged as a crucial player in advocating a three-phase approach to low-carbon development: funding, construction and operation, Ranaraja said.

## Opinion

## Making Big Push Toward Global Decarbonization

By GONG Qian

The 28th Conference of the Parties (COP28) to the United Nations Framework Convention on Climate Change will be held in Dubai, United Arab Emirates, from November 30 to December 12. COP28 is to host a critical discussion on the first-ever global stocktake, evaluating collective progress towards the Paris Agreement's goals.

COP28 is also expected to draw up a plan for more emissions cuts, including reducing the production of fossil fuels such as oil, gas and coal, and increasing the power generation capacity of renewable energy sources.

As a responsible major country, China has stepped up efforts to reduce carbon emissions while helping developing countries increase the use of clean energy.

## Domestic decarbonization efforts

China has promoted the transformation and upgrading of its energy structure by making a big push to develop clean energy, so as to transform its energy structure, and thus reduce carbon dioxide emissions.

China has been the world's largest and fastest-growing producer of renewable energy for more than a decade, according to Reuters, which can be backed up by the numbers behind China's renewable energy boom.

In 2022, China's carbon emissions intensity decreased more than 51 percent from its 2005 level, and the share of non-fossil energy in the country's total energy consumption reached 17.5 percent, according to the 2023 report on China's policies and actions to address climate change, which was released by the Ministry of Ecological Environment in late October.

According to data from clean energy think tank Ember, in 2022, China generated 46 percent more wind power than all of Europe. The rapid roll out of wind capacity, along with a more than 27 percent surge in solar generation in 2022 from the year before, helped push China's electricity share from clean energy sources to a record 34.2 percent last year, Reuters reported.

China is forecast to install almost half of all new global renewable power capacity over 2022-2027, as growth accelerates in the next five years, accord-

ing to analysis from International Energy Agency (IEA).

This August, the most recent monthly data available, 97.8 percent of the electricity generated by wind and 98.8 percent of solar power was used, indicating that China is deploying its renewable energy effectively, according to *The New York Times*.

Electric vehicles are the key technology to decarbonize road transport, a sector that accounts for around one-sixth of global emissions, said IEA. China has already chalked up a big win for decarbonization with its push toward electric vehicles, according to Project Syndicate (PS), an international media organization. The country's EV uptake is unmatched by any other large economy, said PS. As of August, EVs and hybrids accounted for nearly 40 percent of the Chinese car market.

## Promoting global cooperation on clean energy

In recent years, China has enabled more developing countries to access clean energy. More clean energy projects jointly carried out by China and host countries have led to fruitful results, with a number of photovoltaic power stations, wind power stations and hydro-power stations being put into operation.

For example, the Sosian Menengai Geothermal Power Station in Kenya was put into operation this June.

The project is financed and constructed by a Chinese enterprise that signed a contractual arrangement with Sosian Energy, a local private independent power producer. The project serves as a model for innovative blending of Chinese capital and technology to promote clean energy access in Kenya, said Venugopal Varanasi, the managing director of Sosian Energy, in an article published on multimedia resource China Global South Project.

Meanwhile in 2020, the Cauchari PV plant officially launched commercial operations in Argentina. Developed in phases using Chinese funding and technology, under the Belt and Road Initiative, the plant is the largest and highest of this kind in South America, as well as being the world's highest-altitude solar power project. Located in the country's Jujuy province, its 1.2 million solar panels are expected to supply the grid with a total of 300 megawatts of generating capacity in its service life of approximately 20 years.

## Hi! Tech

## XR Glasses Making TV Portable

By QI Liming

Can you "wear" your TV? The answer is, yes, thanks to extended reality (XR) glasses.

XR is an umbrella term covering VR (virtual reality), AR (augmented reality), and MR (mixed reality). It refers to the creation of a digital environment combining the real and virtual worlds through modern high-tech means with the computer as the core, as well as new human-computer interaction methods, to bring the experience of seamless conversion between the two worlds.

Based on technologies such as

cloud computing and 5G, VITURE One company's XR glasses combine the advantages of high computing power and portability, weighing only 78 grams, and are dubbed the "walking TV."

XR glasses look no different from regular glasses. However, they come with a neck strap, which is like the TV remote control. The strap has a customized operating system based on the Android system, and a variety of built-in apps that work with the glasses.

Wearing the XR glasses, users can get an immersive viewing experience. There is no need to use the TV set at home to catch up on variety shows, binge-watch movies, or play games.



XR glasses with a neck strap. (PHOTO: VITURE One)

## Chinese Cities Lead in Science Ranking

## Research Box

On November 24, the Nature Index 2023 Science Cities supplement was released, which is based on the Nature Index database, covering research articles in 82 natural-science journals published between 2015 and 2022. The

analysis uses article "Share" as the primary metric, with time series figures adjusted to 2022 levels.

The supplement includes the "Leading 200 Science Cities" list, with a total of 32 cities in Chinese mainland on it. According to the Nature Index, the ten leading science cities in China have made strong gains from 2021 to 2022. Beijing tops the world's leading

science cities, and contributes almost 20 percent of China's total Share in the Nature Index. The other four Chinese cities among the Top 10 are Shanghai, Nanjing, Guangzhou and Wuhan. Besides, the top four in terms of percentage growth in adjusted Share are Xi'an, Shenzhen, Guangzhou and Tianjin.

Earth and environmental sciences are areas of strategic focus for China,

which surpassed the United States as the leading nation in the subject in the Nature Index in 2022. The fastest-rising cities, Beijing and Nanjing, recorded an absolute increase in adjusted Share from 2021 to 2022 of 165 and 72, respectively.

—Nature Index 2023 Science Cities, an editorially independent supplement, 23-11-2023