

# China's Eminent Role in Global Energy Market

## Voice of the World

By QI Liming

What are the key words that we think of when talking about the economy, development, or growth? For the experts and analysts from Center for Strategic and International Studies (CSIS), S&P Global Commodity Insights and *Scientific American* there was only one word that came up: energy.

Senior fellows of CSIS said in February that China holds the key to global energy demand. Global energy prices hinge on China's economic recovery. China's lifting of COVID-19 restrictions will boost oil and gas demand in 2023. Stronger industrial activity should increase China's natural gas imports, and a rebound in mobility will boost gasoline, diesel, and jet fuel demand. The strength of the recovery will dictate how China adjusts crude oil import quotas and refined product export quotas, and the latter could prove critical as the oil market adjusts to a price cap on Russian products.

Energy is not only a vital driving



An air view of Talatan photovoltaic power station, China's largest solar power plant, in Qinghai province. (PHOTO: XINHUA)

force for social development, but also an important factor to improve overall national strength. Clean energy is the new trend in catalyzing growth.

*Scientific American* reported that China spent 546 billion USD in clean energy in 2022. The investments included solar and wind energy, electric vehicles and batteries. Meanwhile, the European Union was second to China with 180 billion USD in clean energy investments,

while the amount of U.S. investments in clean energy was only 141 billion USD.

China once again topped the world in clean energy investments last year. Nearly half of the world's low-carbon spending took place in China, according to a recent analysis from market research firm BloombergNEF.

"China has managed to nurture these really integrated, efficient value chains for making things like solar pan-

els, and battery cells," said Antoine Vagneur-Jones, head of trade and supply chains research at BloombergNEF.

S&P Global Commodity Insights forecast in February that China would maintain renewables growth pace in 2023 despite uncertainty.

China is expected to continue adding more renewable power generation capacity in 2023 rather than coal-fired generation capacity, with a focus on deeper integration of solar and wind power to the grid, according to S&P Global Commodity Insights forecasts.

This means that China, for yet another calendar year, accounted for the world's most renewables growth, and will add approximately 45-50 GW of coal-fired generation capacity in 2023, and around 200 GW of renewable capacity, according to Caroline Zhu, senior analyst with S&P Global Commodity Insights.

In recent years, China accounted for roughly 44 percent of additional global renewable capacity and more than 73 percent of Asia's renewables capacity addition, and this trend is expected to continue in 2023.

# Hegemonic, Domineering and Bullying Practices Exert Grave Harm

## Comment

By TANG Zhexiao

On February 20, China released a report to shed light on *US Hegemony and Its Perils*, presenting relevant facts to expose its abuse of hegemony in political, military, economic, financial, technological and cultural fields.



As two major countries, China and the United States should carry out necessary cooperation. This is the due responsibility of major countries, as well as the common expectation of the international community. (PHOTO: VCG)

Since becoming one of the world's superpowers post Cold War, the U.S. has developed its own hegemonic playbook, bringing harm to the international community.

Besides interfering in the internal affairs of other countries and ramping up bloc politics, it deters many countries' scientific, technological and economic development by wielding monopoly power, suppression measures and technology restrictions in high-tech fields, causing worldwide outrage.

The U.S. has been politicizing technological issues and using them as ideological tools for a long time.

Its crackdown on Huawei has become one of the technology industry's most talked-about topics. Overstretching the concept of national security, the U.S. mobilized state power to suppress and sanction Chinese telecom's companies, particularly restricting the entry of Huawei products into U.S. market and cut off its supply of chips and operating systems, while also coercing other countries to ban Huawei from undertaking local 5G network construction.

Washington claims that the core issue with Huawei has been the fact that the company may have been working closely with the Chinese government, which led them to accuse the tech giant of cyber-espionage.

In reality, there is currently no evi-

dence to back this claim. According to *Politico's* reports, hardware supplied by Huawei was equipped within 300 meters near the 59th Munich Security Conference venue, which fully demonstrates that Huawei 5G equipment does not pose security threats.

Chinese social media Apps such as TikTok and WeChat are suppressed by Washington either.

To date, the U.S. has 113.3 million active TikTok users aged 18 and above, which is more than one third of the U.S. social media users, said DataReportal, an online platform specialized in data report.

Kian Vesteinsson, senior research analyst for technology and democracy at Freedom House, says a nationwide ban on TikTok would be a "mistake," and the real problem is the country's lack of laws protecting data privacy at the federal level on all applications.

TikTok is not the only App that stores information of its users. Instead of a ban, the U.S. government should strengthen privacy protections and bolster transparency requirements for all social media platforms.

Meanwhile, by building small blocs on technology such as the "chips alliance" and "clean network," the U.S. fabricated excuses for its technological blockade.

In May 2019, the U.S. enlisted 32 countries to the Prague 5G Security Conference in the Czech Republic and issued

the *Prague Proposal* in an attempt to exclude China's 5G products.

In April 2020, then U.S. Secretary of State Mike Pompeo announced the "5G clean path," designed to build a technological alliance in the 5G field with partners bonded by their shared ideology on democracy and the need to protect "cyber security."

In 2022, more than 1,000 Chinese companies were added to various lists of export controls and sanctions by the U.S. and *The CHIPS and Science Act* was signed into law with the primary aim of countering China.

In January 2023, U.S. Commerce Department said it would no longer issue licenses for US companies that have been selling essential components to Huawei, according to the *Financial Times*.

The measures, in essence, are the U.S. attempts to maintain its technological hegemony through tech alliances. They are harming China without anyone gaining any benefit, which undermines the stability of the global industrial chain.

As the report noted, the U.S. must conduct serious soul-searching. It must critically examine what it has done, let go of its arrogance and prejudice, and quit its hegemonic, domineering and bullying practices.

If Washington continues to block the road for others, it will only end up blocking its own way.

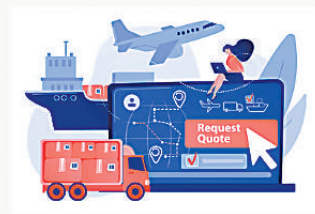
## Research Box

The 2022 edition of the International Postal Corporation (IPC) Cross-Border E-Commerce Shopper Survey has been released in late January.

It provides a comprehensive analysis of the global trends and drivers shaping cross-border e-commerce from the perspective of online consumers. According to the survey, as in previous years, the top exporting countries for cross-border e-commerce are China, Germany, the U.S. and UK.

## IPC Cross-Border E-Commerce Shopper Survey 2022

### KEY FIGURES



64%

respondents bought from China, Germany, the U.S. and the UK.



53%

respondents bought from Amazon (27%), Aliexpress (17%) and eBay (9%).

(Chinese fashion e-retailer Shein has also increased significantly from 0% in 2019 to 6% in 2022.)

## Top three sources per country

The below charts are based on the answers to the question: Please specify the country from which you bought this most recent online cross-border purchase.

USA	CANADA	JAPAN	AUSTRALIA
<ul style="list-style-type: none"><li>CHINA, 41%</li><li>UK, 15%</li><li>CANADA, 9%</li></ul>	<ul style="list-style-type: none"><li>US, 46%</li><li>CHINA, 32%</li><li>UK, 6%</li></ul>	<ul style="list-style-type: none"><li>CHINA, 34%</li><li>US, 26%</li><li>S. KOREA, 22%</li></ul>	<ul style="list-style-type: none"><li>CHINA, 34%</li><li>US, 26%</li><li>UK, 12%</li></ul>
BRAZIL	CHILE	UK	GERMANY
<ul style="list-style-type: none"><li>CHINA, 68%</li><li>US, 18%</li><li>JAPAN, 2%</li></ul>	<ul style="list-style-type: none"><li>CHINA, 68%</li><li>US, 22%</li><li>ARGENTINA, 2%</li></ul>	<ul style="list-style-type: none"><li>CHINA, 38%</li><li>US, 23%</li><li>GERMANY, 8%</li></ul>	<ul style="list-style-type: none"><li>CHINA, 37%</li><li>UK, 12%</li><li>AUSTRIA, 8%</li></ul>

Note: The figures showed above are part of findings revealed by the survey.

PHOTO: VCG; DATA SOURCE: IPC; DESIGNED BY GONG QIAN

## Discharging Nuclear Contaminated-water at Will

# US-Japan Gangs up to Pollute Global Ecosystem

## Opinion

By TANG Zhexiao

At an open debate on the direct threat of climate change-induced sea-level rise held on February 14 by the United Nations Security Council, representatives criticized Tokyo over its plans to discharge nuclear contaminated-water from the Fukushima power plant.

Dmitry Chumakov, Deputy Permanent Representative of the Russian Federation to the UN, called on Tokyo to demonstrate transparency, inform others of its actions, allow for monitoring and to minimize negative environmental impacts.

According to a previous study by Germany's Geomar Helmholtz Centre, discharged Fukushima nuclear contaminated-water will pollute half of the Pacific Ocean in 57 days. And it will pollute

the entire ocean in the next decade.

Japan's neighbouring countries condemned its decision. Choi Kyoung-sook, the coordinator from Korea Radiation Watch, a Seoul-based civic environmental activist group, said there isn't any reliable scientific proof whatsoever to what the Japanese government has released to argue the discharge is safe, according to *The Korea Times*.

With the influence of ocean currents, the nuclear contaminated-water will no doubt reach the west coastline of the U.S., endangering of health and food security of many Americans.

However, Washington does not worry about discharge. Ned Price, the spokesperson for U.S. Department of State, said at the press briefing on February 15 that Japan's discharge plan, "Has been transparent" and "it has adopted an approach in accordance with globally accepted nuclear safety and security standards."

In 2022, the U.S. Ambassador to Ja-

pan Rahm Emanuel said at a lecture in Tokyo that the Japan-U.S. alliance has entered an era of "projection" into the Indo-Pacific from "protection."

But it seems the two are in a form of "alliance pollution" more than "projection alliance," ganging up to endanger the Pacific and even the global ecosystem.

The "alliance pollution" is vividly demonstrated by U.S. military base's being suspected of polluting lands and groundwater in Japan for years.

In January 2016, the government of Okinawa Prefecture detected high concentrations of organic fluorides PFOS (a man-made surfactant which is regarded as a global pollutant and potentially cancer-causing chemical compounds) in a water source near the Kadena Air base of the U.S. military.

Also Okinawa Prefecture, a high concentration of PFOS was detected in the area near Kadena Air Base and U.S. Marine Corps Air Station Futenma, in

2021.

In September 2022, PFOS were detected in wastewater from a wastewater treatment plant at U.S. Yokosuka Naval Base in Kanagawa Prefecture. The volume of the chemical compounds detected equals 172 times the Japanese government-set provisional target value, according to Japan's *The Mainichi*.

The ocean is the bedrock for survival and development of all countries in the world. No matter who discharges toxic wastewater will gravely undermine the marine environment, eco-system, and lives and health of people in many countries.

The U.S. and Japan should earnestly fulfill their international obligations, find a proper way to dispose of the nuclear contaminated-water and wastewater in a science-based, open, transparent and safe manner, and protect the marine environment as well as people's lives and health.

# Liquid Robot Can Shape Shift on Command

## Hi! Tech

Edited by QI Liming

Researchers from China and the U.S. have created a liquid metal robot that can mimic the shape-shifting abilities of actor Robert Patrick's silvery, morphing killer robot in Terminator 2: Judgment Day.

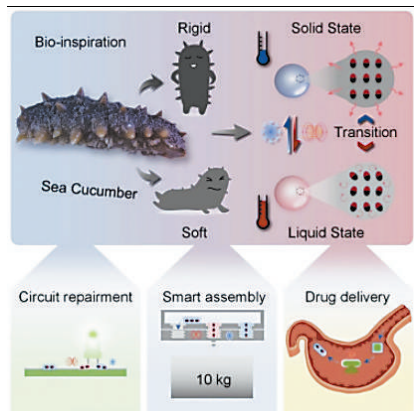
Magnetically actuated miniature machines can perform multi-modal locomotion and programmable deformations.

However, they are either solid magnetic elastomers with limited morphological adaptability, or liquid material systems with low mechanical strength.

Inspired by the sea cucumber, the magneto-active phase transitional matter (MPTM) is composed of magnetic neodymium-iron-boron micro-particles embedded in liquid metal.

MPTMs can reversibly switch between solid and liquid phase by heating with alternating magnetic field or through ambient cooling.

Similar shape-shifting robots are expected to be used in the future to deliver drugs to specific organs, grab and cart away foreign objects inside the body, or assemble tiny mechanical parts in hard-to-reach spaces.



Graphical abstract of the liquid robot. (PHOTO: SCREENSHOT)