

Belt and Road Cooperation and European Power Highway Construction

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Ambassador of the People's Republic of China to the Hellenic Republic



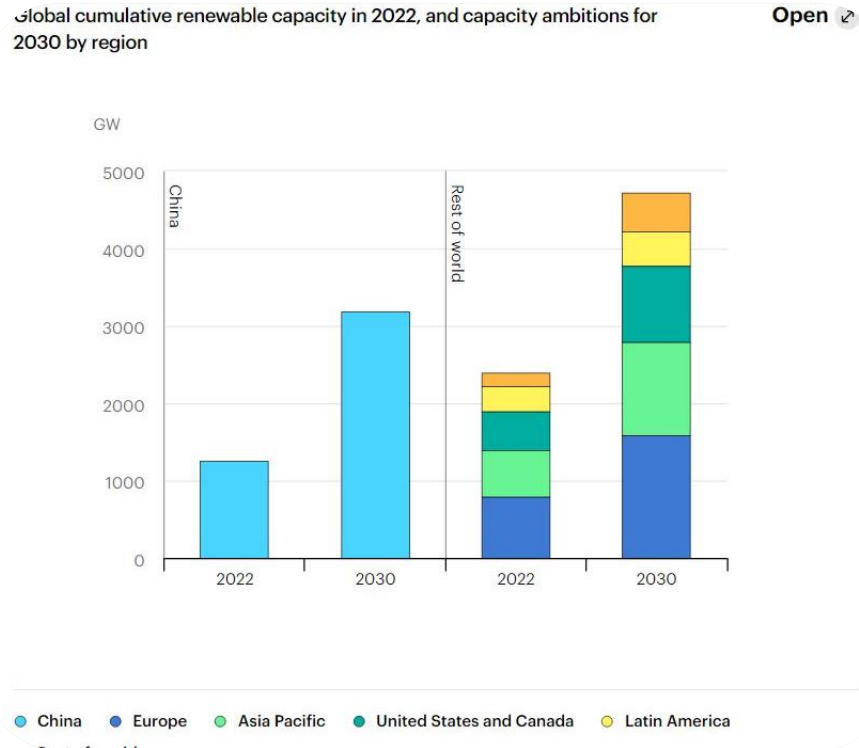
The Third Belt and Road Forum for International Cooperation



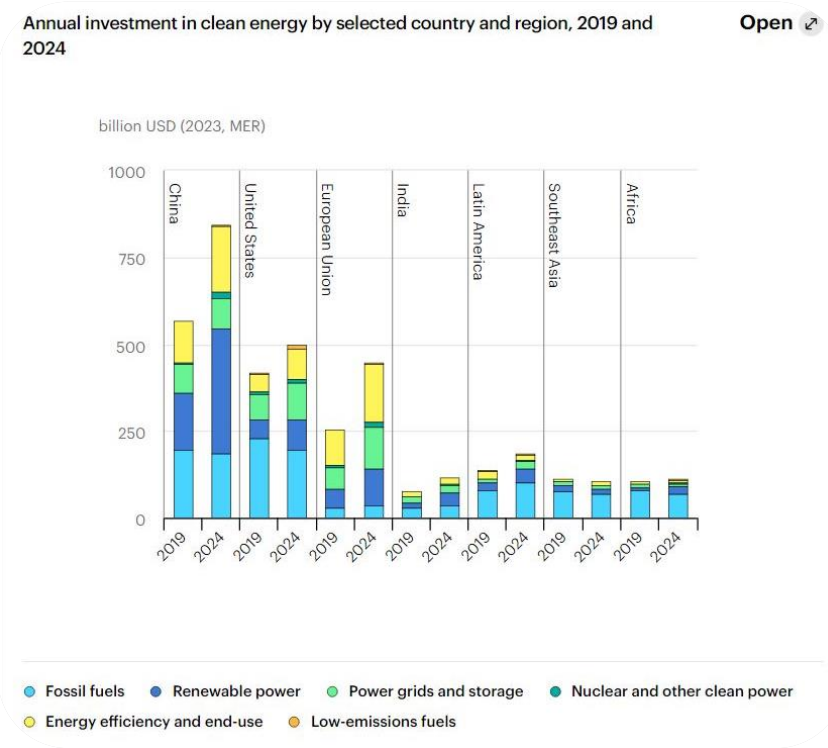
● Promoting green development

China will continue to deepen cooperation in green energy with partner countries of the BRI.

Global cumulative renewable capacity in 2022, and capacity ambitions for 2030 by region



Annual investment in clean energy by selected country and region, 2019 and 2024



Power highway is a key link in reshaping the energy mix in Europe

01

Europe remains heavily dependent on imported fuels, but climate crisis and geopolitical landscape changes exacerbated the urgency of energy transition

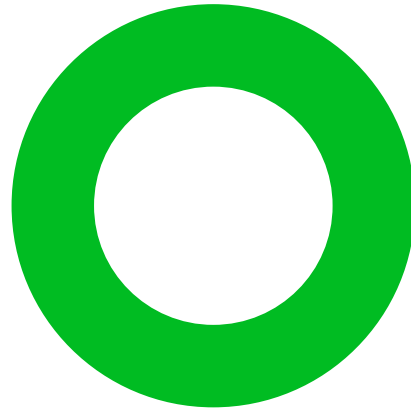
02

Southeastern European countries are rich in renewable energy sources, but with relatively low energy consumption.

03

If Europe is to achieve energy autonomy, it must be able to ensure long-distance, large-scale energy transmission across the continent.





Greece

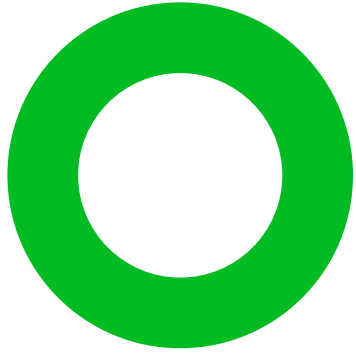
Important power hub

Unique geographical position, located at the crossroads of Europe, Asia, and Africa.

Rich renewable resources, Greece has abundant solar and wind energy sources.

Government's ambitions, Greece has established its role as the energy hub for Southeastern Europe.

The execution capability of the enterprise, the Egypt-Greece DC interconnection has been included in IPTO's Ten-Year Development Plan, IPTO is also working to promote the Attica-Crete HVDC interconnection project



China

Most advanced electrical technology

China and Greece have broad prospects for complementary cooperation in power resources and technologies.

With VSC-HVDC technology, the intermittent and unstable wind and solar energy can be converted into flexible, efficient and clean energy, which can then be transmitted to other European countries via HVDC and UHVDC cables.

Our product line includes equipment for AC substation, HVDC, UHVDC, VSC-HVDC, and wind and solar power systems. They are able to meet the needs of power projects of all kinds.

State Grid Corporation of China



Ranking **third** among the Fortune Global 500

Total assets exceeding **710** billion US dollars

Annual operating income exceeding **520** billion US dollars



Xiangjiaba-Shanghai $\pm 800\text{kV}$ UHVDC transmission project



Capacity

Transmission capacity 6.4 million
kilowatts



Distance

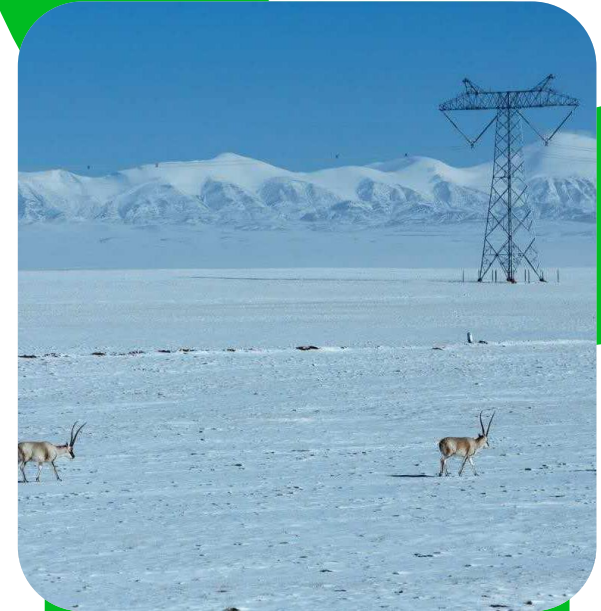
The power transmission distance exceeds 1900 kilometers

Chaidamu-Lasa

$\pm 400\text{kV}$ DC

The highest altitude DC project in the world.

Altitude 5,300 meters



Jiuquan-Hunan ± 800 kV UHVDC transmission project

China's first large-scale wind-solar-thermal power bundled UHVDC transmission project.



Line length:
2447km



Capacity: 8 million kilowatts



Zhundong-Wannan $\pm 1100\text{kV}$ UHVDC transmission project

1100KV

12000MW

3324KM

UHV transmission project with the highest voltage level, the largest transmission capacity, the furthest transmission distance and the most advanced technology in the world



— Zhangbei $\pm 500\text{kV}$ VSC-HVDC —



World's first four-terminal ring power network based on VSC-HVDC technology. The project includes the construction of four $\pm 500\text{kV}$ converter stations, with a total converting capacity of 9 million kVA and a length of 666 kilometers.

- **Sends 14 billion kilowatt-hours of clean power to Beijing every year.**
- **Helps to reduce the burning of 4.9 million tons of standard coal and the emission of 12.8 million tons of carbon dioxide.**
- **Helps the 2022 Beijing Winter Olympics achieve 100% green power supply.**

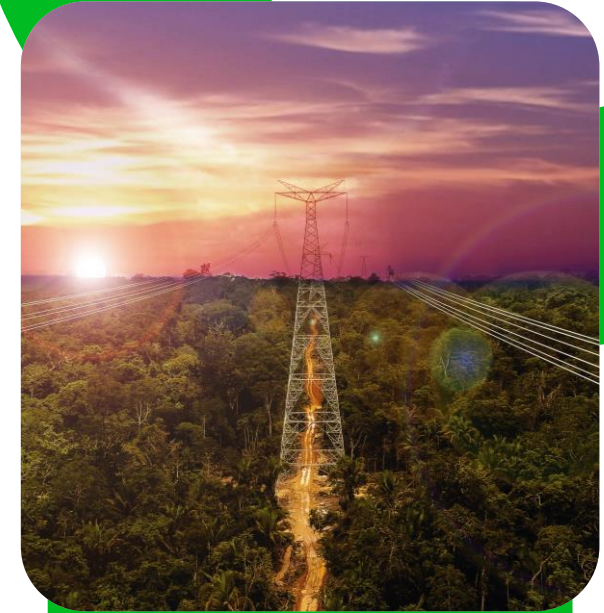
Brazil



±800 kV UHV DC transmission project I

Belo Monte $\pm 800\text{kV}$ UHVDC transmission project II

In 2019, the 2,539-kilometer-long Belo Monte $\pm 800\text{kV}$ UHVDC transmission project was put into operation, making it the $\pm 800\text{ kV}$ UHVDC transmission project with the longest transmission distance, known as the “Brazilian Power Highway”.



Brazilian Power Highway



Thank You

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