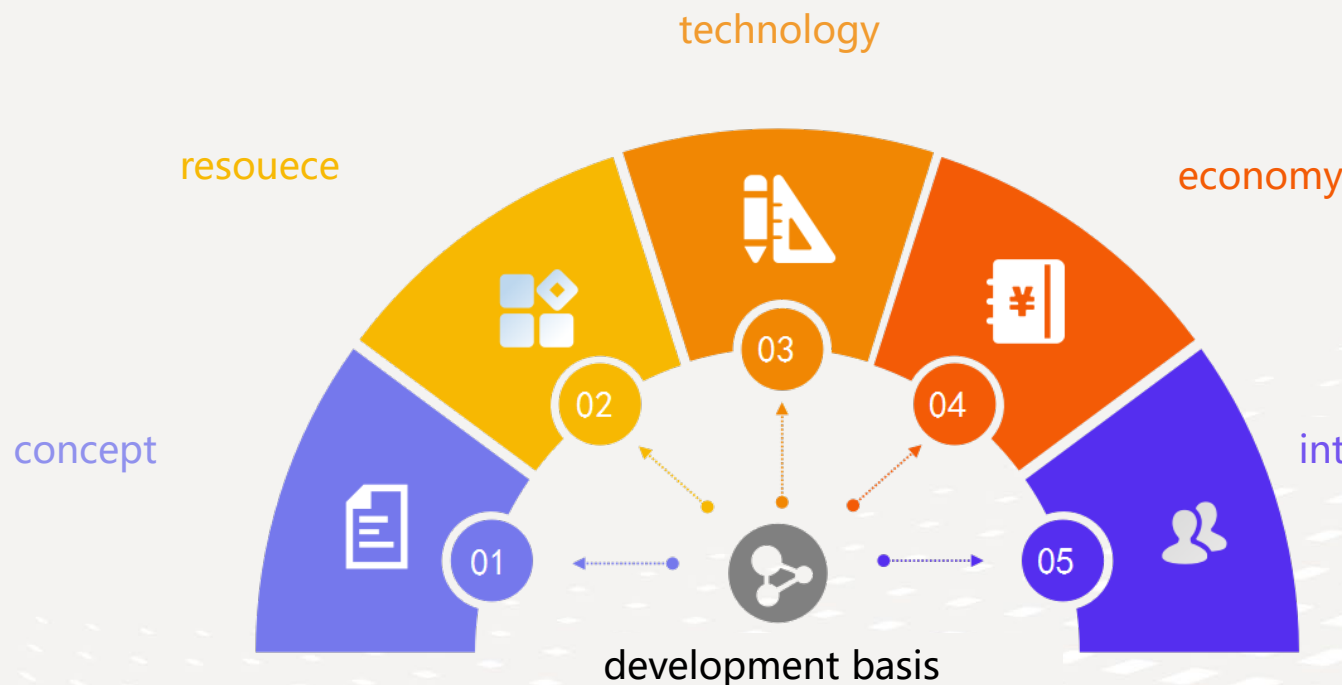


China's Practice

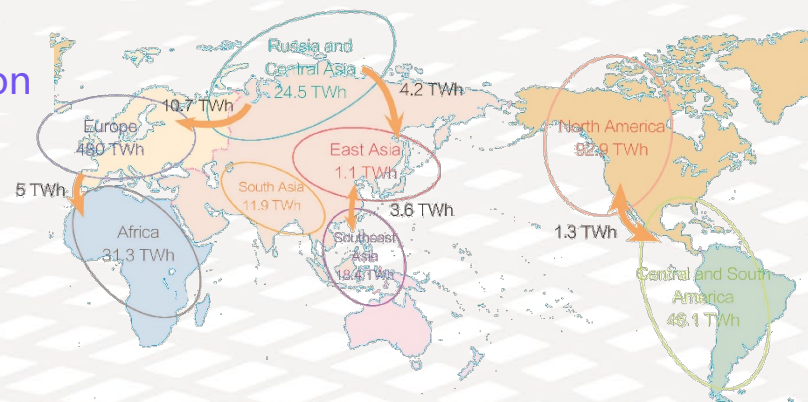


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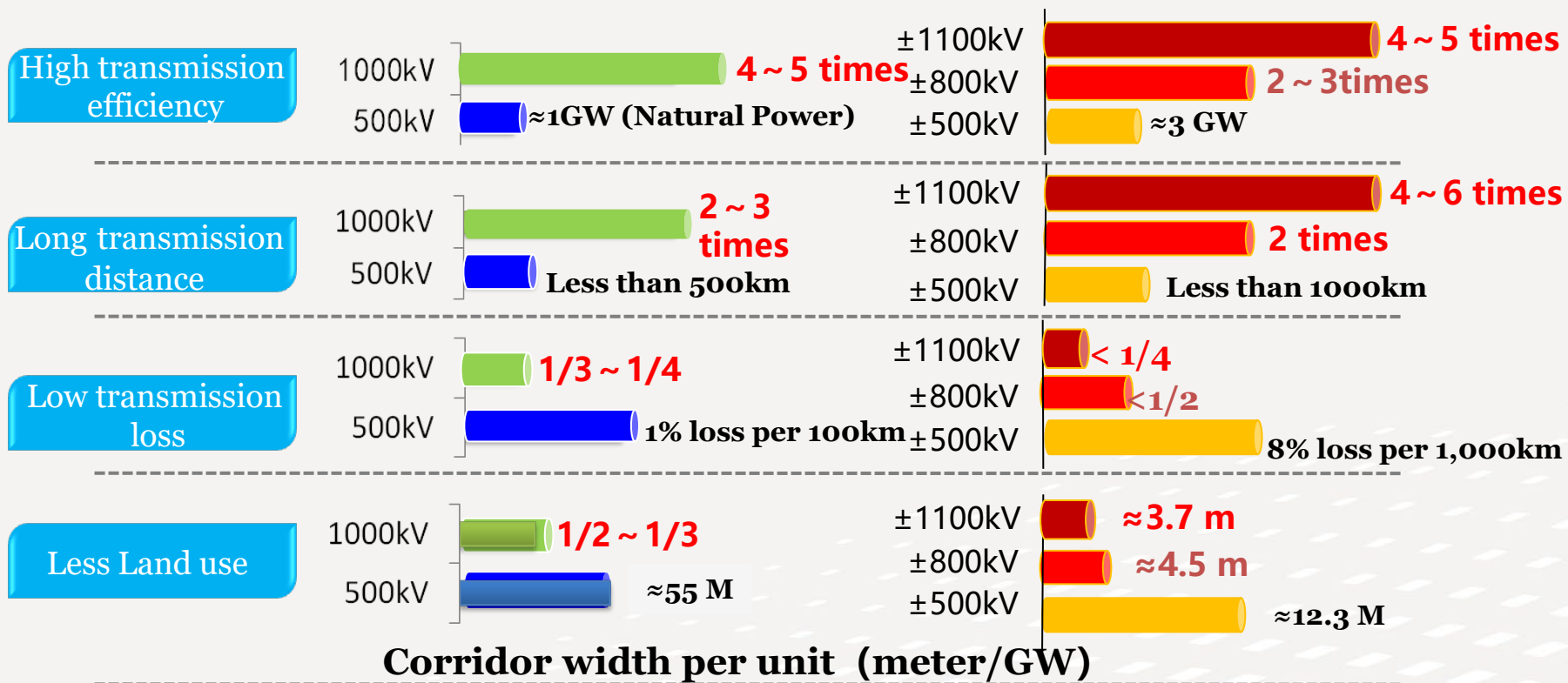
Building GEI conforms to the energy development law of cleaning, electrification and networking. With technological feasibility, economic efficiency, guaranteed resources, interconnection basis and political consensus, GEI stands ready to embark on the fast track for development.



UHV Grid Interconnections in China



International Power Trading

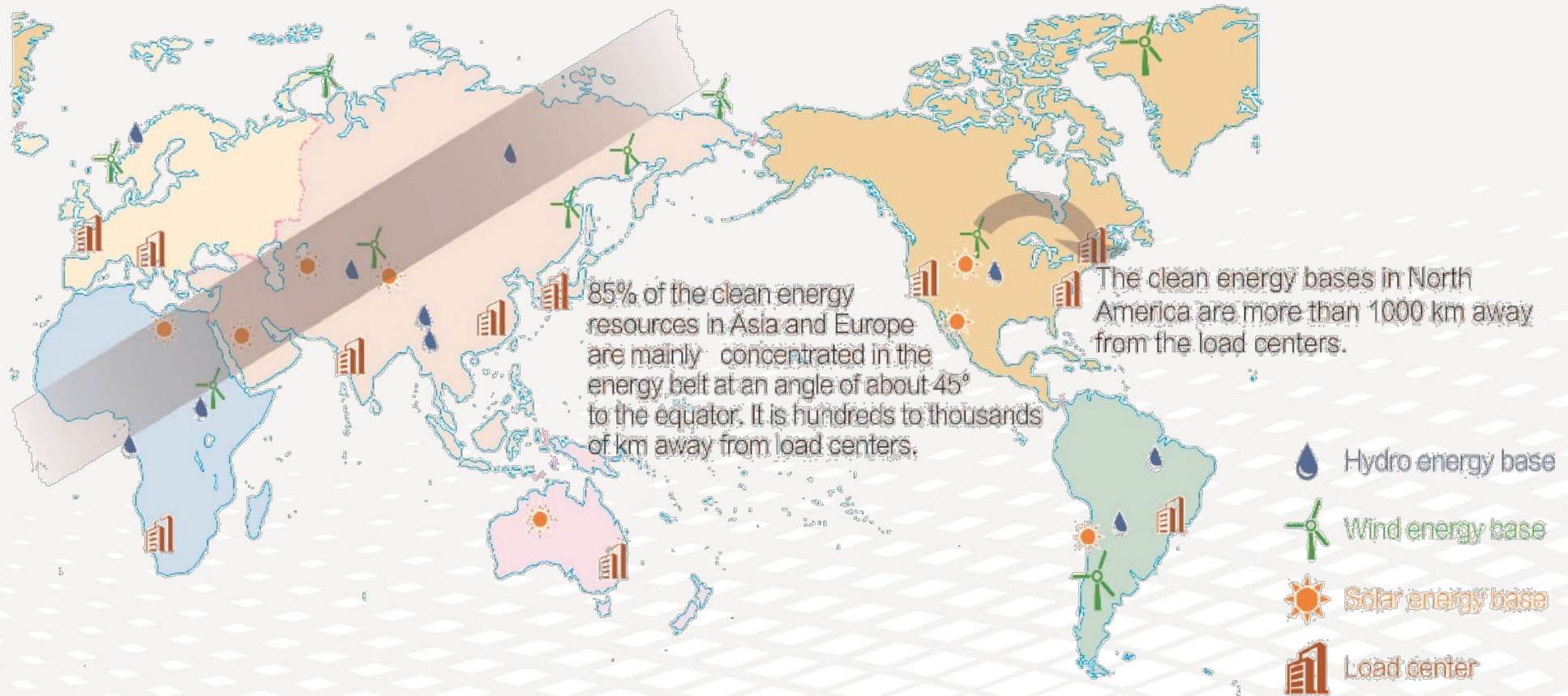


Energy Supply and Demand Worldwide



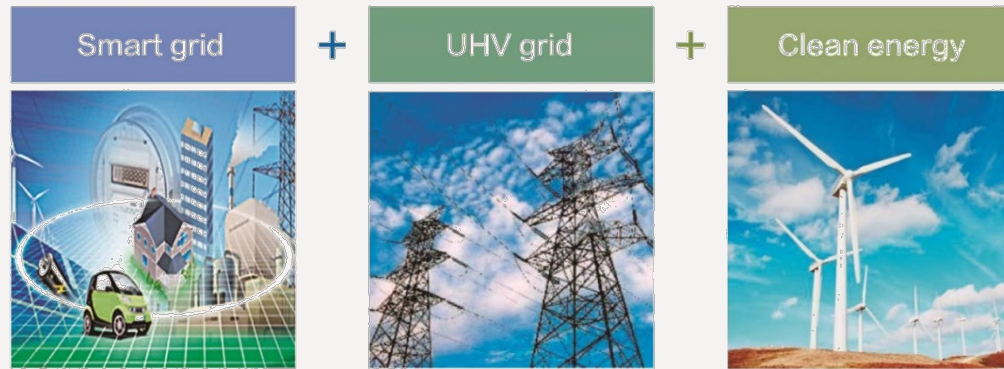
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- **Clean energy resources are abundant, but unevenly distributed.** Global clean energy resources such as hydro, wind and solar energy are equal to 38 times the remaining minable reserves of fossil fuels. There are time zone and seasonal differences in the distribution of clean energy resources, and rich resource areas are generally far from the load centers.

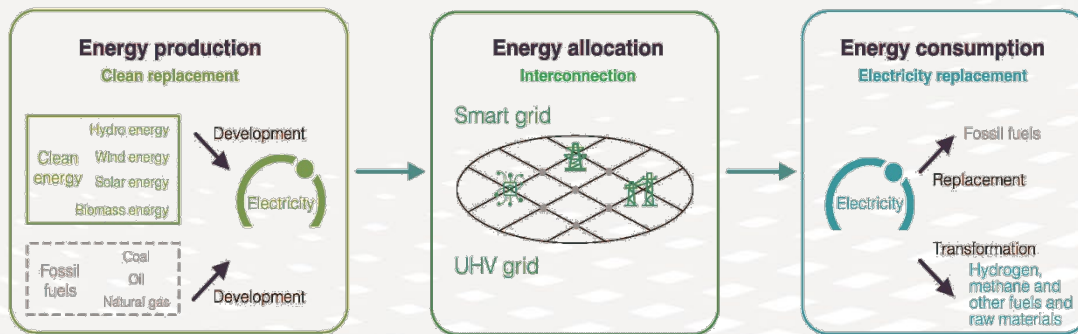




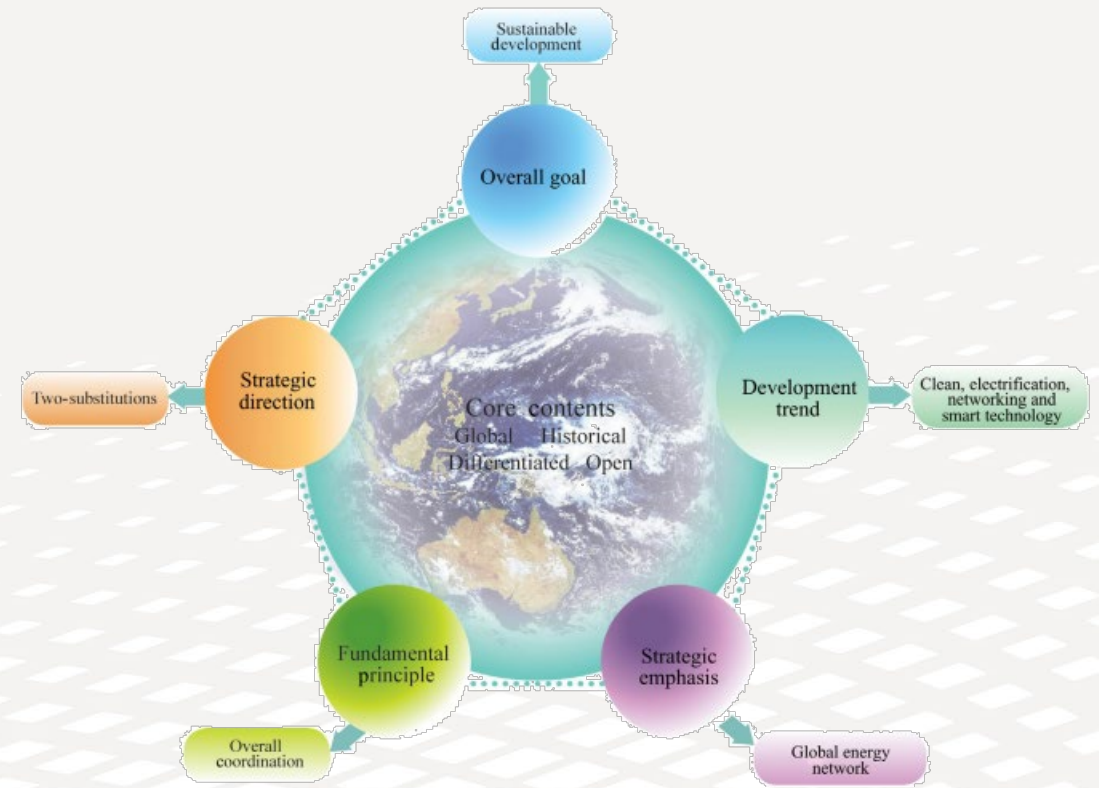
The GEI is a platform for the application of advanced technologies such as smart grid, UHV power transmission, clean energy and energy storage, and promoting the large-scale development, allocation and utilization of clean energy globally.



Basic Elements of GEI



GEI System Structure



GEI Backbone Grid



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By 2050, the world will have built the “Nine Horizontal and Nine Vertical” GEI backbone grid, achieving the new pattern of global clean energy development, allocation and utilization.

Asia-Europe-Africa “Four Horizontal Six Vertical” Interconnection Channel

America “Four Horizontal Three Vertical” Interconnection Channel

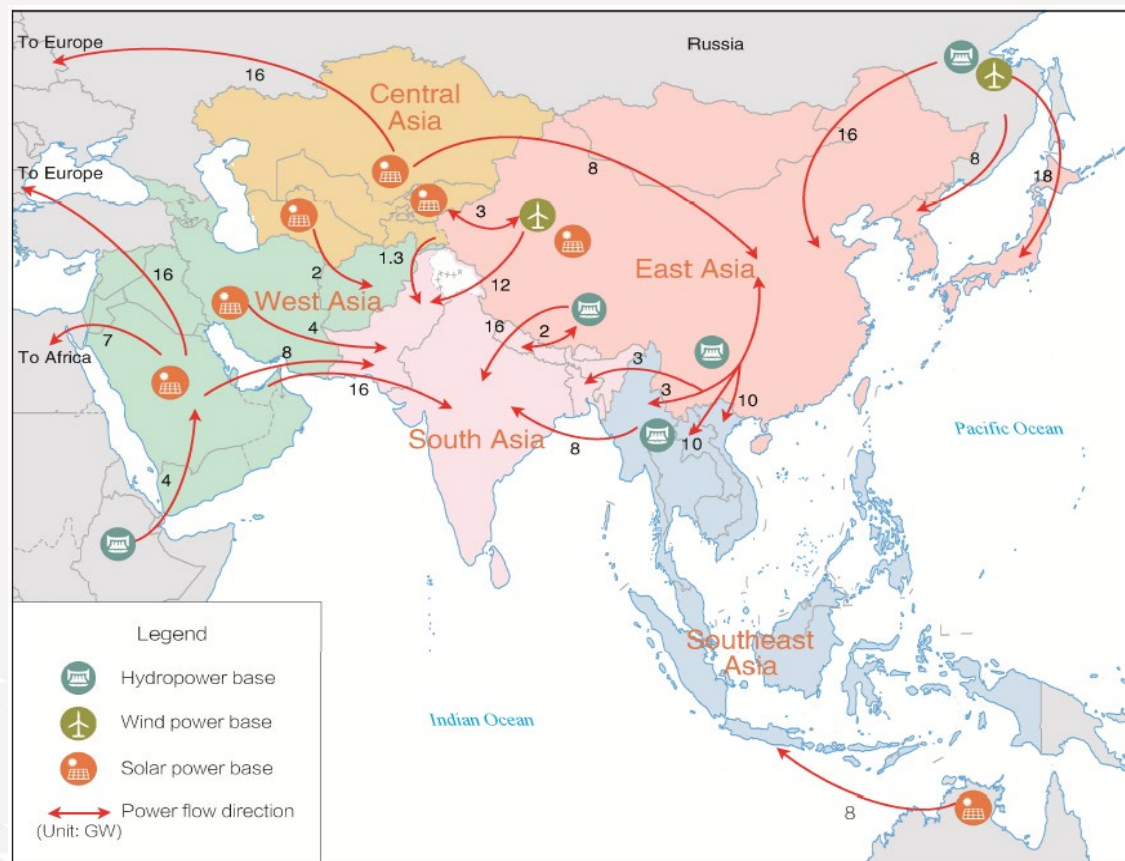
Arctic Interconnection Channel



GEI Backbone Grid in 2050



Asia has a large population and economy causing huge demand for energy and power. Most countries in Asia are developing countries and have become the most vibrant and promising areas in the world. Priorities for power grids development in Asia should focus on both energy transition and clean development, aiming to achieve to a green and low-carbon transition during the development process.



Clear energy bases

61 large-scale solar power bases
62 large-scale wind power bases

Power flow

The power flow will reach 200 GW with 51 GW inter-continental power flow.

Clean Energy Bases and Power Flow in Asia

Asian Energy Interconnection



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Asia will form an interconnection pattern consisting of five regions, namely, East Asia, Southeast Asia, Central Asia, South Asia and West Asia, so as to realize efficient inter-regional power allocation, and multi-energy complement.

East Asia power grid

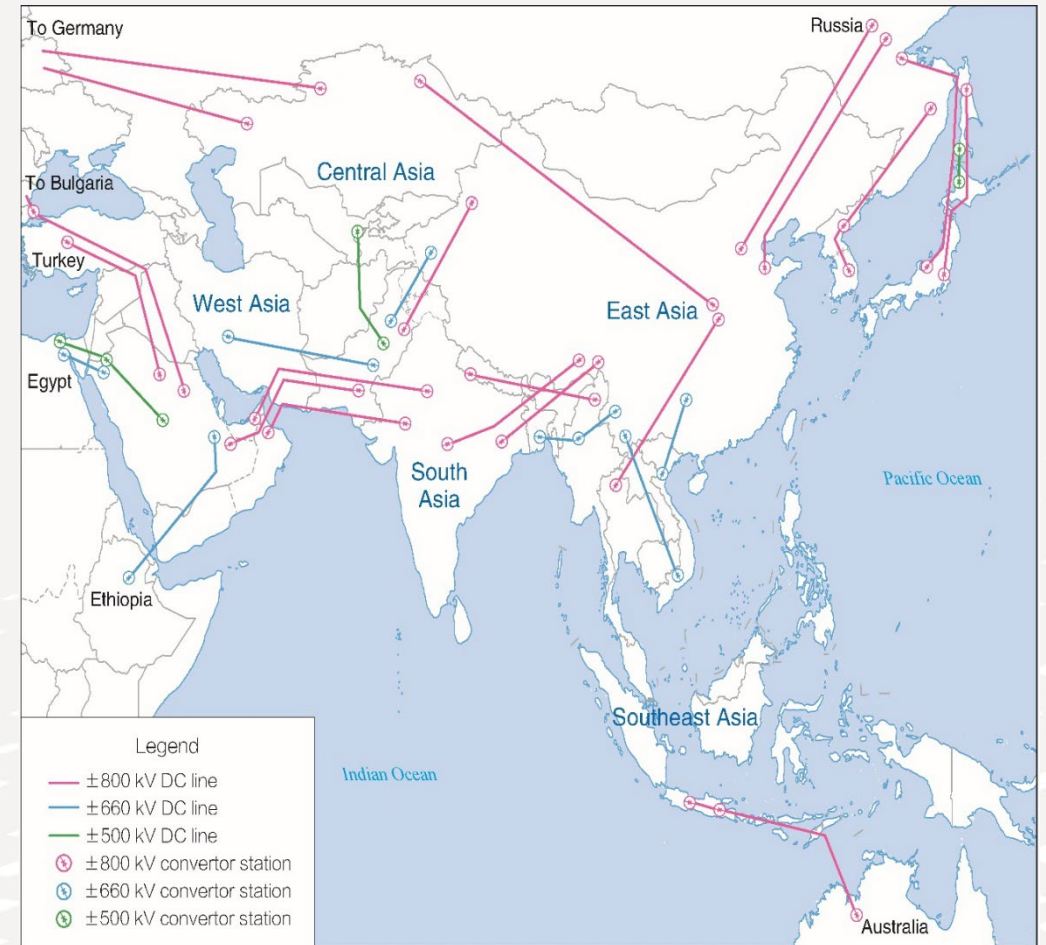
Southeast Asia power grid

South Asia power grid

Central Asia power grid

West Asia power grid

Inter-continental interconnection



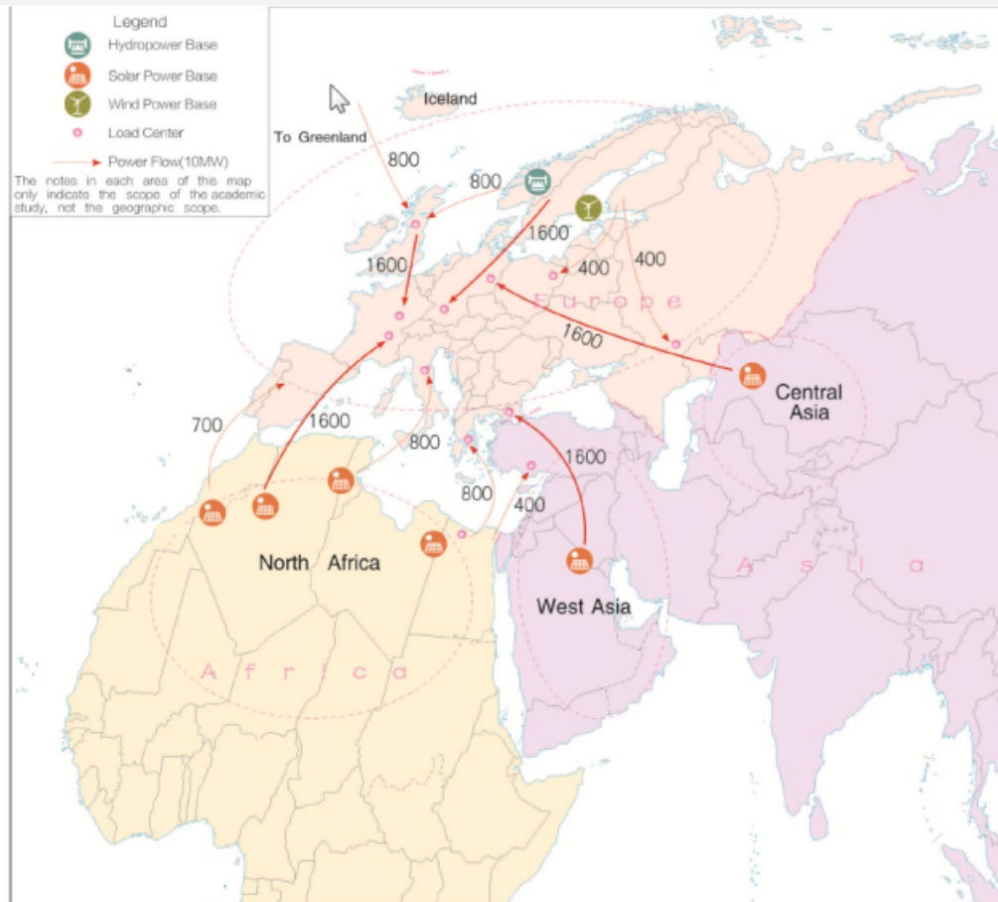
Power Grid Interconnection Pattern in Asia

European Energy Interconnection



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Europe is at the forefront of the global drive to promote clean energy development, address climate change and drive regional integration. The development priorities of European Energy Interconnection should focus on further improving the Clean Replacement, Electricity Replacement and power grid interconnection on a larger scale.



Clean Energy Bases and Power Flow in Europe

Clean Energy Bases

- 5 large-scale wind power bases
- 3 large-scale hydropower bases

Power Flow

In 2050, inter-continental and inter-regional power flow will reach 133 GW, including an inter-continental power flow of 75 GW.

European Energy Interconnection



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The power grid pattern will emerge in Europe which will take the DC grid of the continent as the core, while connecting with wind power bases in the North Sea, Baltic Sea, Norwegian Sea and Barents Sea, hydropower bases in Northern Europe, and clean energy bases in North Africa, West Asia and Central Asia.

British Isles Power Grid

Northern Europe Power Grid

Western Europe Power Grid

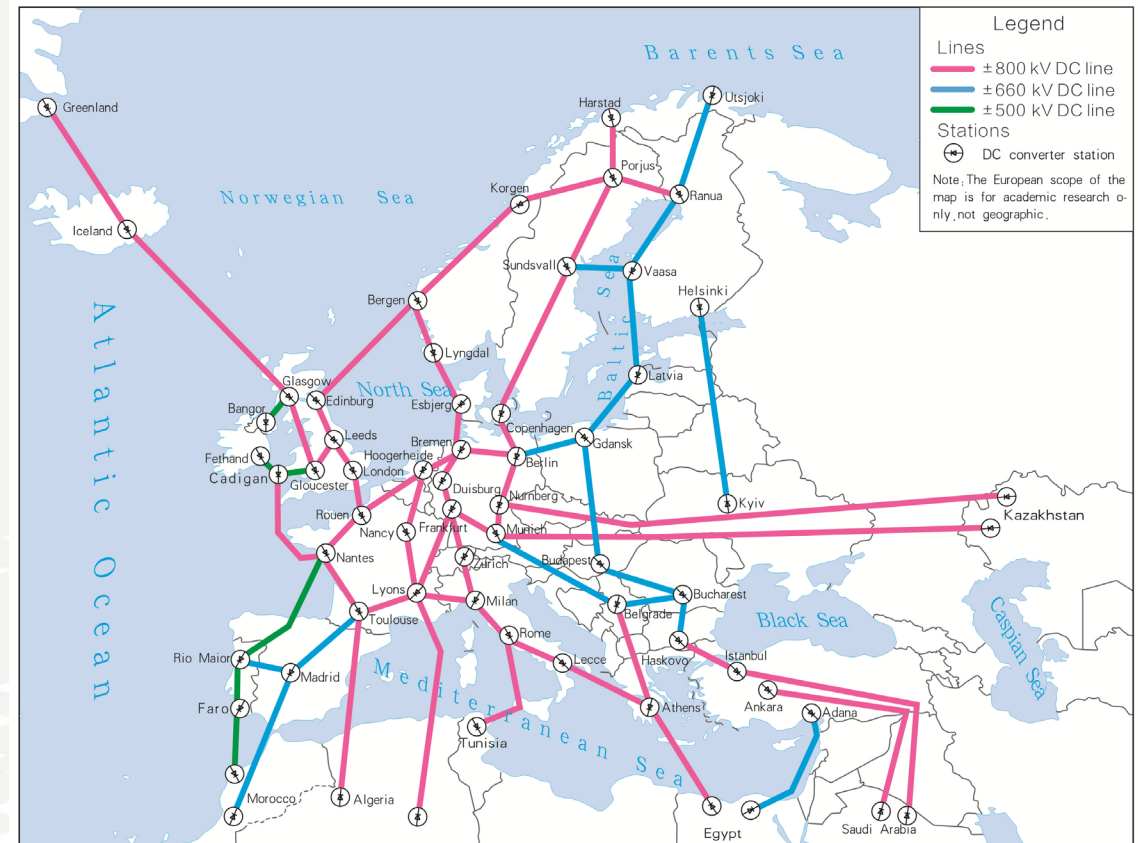
Southern Europe Power Grid

Eastern Europe Power Grid

Baltic States Power Grid

RBUM Power Grid

Inter-continental Interconnection



Power Grid Interconnection Pattern in Europe