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(Tony)

Global Energy Interconnection Development and Cooperation Organization (GEIDCO)

November 2019





- 1. Our experience of Global Energy Interconnection
- 2. Our organization, GEIDCO
- 3. Our actions to promote GEI



1. Our experience of Global Energy Interconnection (GEI)





Origin of Global Energy Interconnection



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Economic Growth



GDP Increase Rate

Origin of Global Energy Interconnection



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Air pollution and carbon emissions









Global Develoy 全球能

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Development process of the highest voltage levels of AC network in China







DC network





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DC network





- ➤ AC: 14 in operation, 5 under construction, 5 planed by 2030
- > DC: 14 in operation, 4 under construction, 10 planed by 2030





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Distribution system





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Electric Vehicle



0.19 billion cars 1.1 million EVs

Considering 100 kWh (Tesla) of storage capacity for each EV, the total storage capacity will be 8 TWh.

16 TWh of electricity consumption per day in 2016.
24 TWh of electricity consumption per day in 2030.



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Electric Vehicle

Number of China public and dedicated fleet EV charging posts, in thousands



Source: China EV Charging Alliance, January 2019







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Power Consumption in China (GWh)





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MW









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Carbon Improvement





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Losses Improvement

Annual T&D Losses Rate (%)





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Bluer Skies in Beijing

Pollution levels in China's capital fell as the government clamped down on coal burning





Note: Chart illustrates 30-day moving average of air pollution levels Source: China Air Quality Index

Bloomberg





2. Our organization GEIDCO



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Global Energy Interconnection (GEI)

GEI is a globally interconnected strong and smart grid with long-distance transmission technology grids as the backbone, an infrastructure platform on which clean energy can be developed, transmitted, and used massively worldwide.

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Global Energy Interconnection



Smart Grid



UHV Grid



Clean Energy

Introducing GEIDCO



- **GEIDCO** is a NGO
- **Date of foundation**: March 29, 2016
- Purpose: Building Global Energy Interconnection (GEI) to meet global power demand with clean and green alternatives
- Members: 635 members, 93 countries,
- Chairman: Mr. LIU Zhenya





Introducing GEIDCO







3. Our actions to promote GEI



a. Enhancing trust and mutual understandings

Synergize with major UN initiatives



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MoU with UNDESA

MoU with UNFCCC





Communication with governments



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On Mar 3rd 2019, Egypt's President Mr. Sisi welcomed GEIDCO Chairman LIU Zhenya



In Dec 2018, Mr. Philémon Yang, Prime Minister of Cameroon exchanged insights with GEIDCO Chairman LIU Zhenya



b. Promote research in GEI to create awareness of benefits related



- Global Energy Interconnection Backbone Grid Research
- Global Energy Interconnection Standard System Research
- Global Energy Interconnection Technology & Equipment Innovation Outline.





- The overall plan and goal:
- Clean replacement in energy production
- Electricity replacement in energy consumption;
- Based on cutting-edge technologies like UHV and smart grid;
- GEI backbone network with 9 horizontal and 9 vertical grids, will serve as the energy artery connecting the five continents.







With ENTSO-E Brussels, May 2019



With UNESCO Paris, May 2019



With African Union Beijing, September 2018



With the Republic of Guinea Nigeria, December 2018



One more thing...





Source: AfDB statistics.

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Could Litery Inservances Devicement and Compension Organization 全社能形互联网发展合件和统计	S/N	Project	Transmissio n Capacity	Length	Investme nt	Planned Completion Time
Developing Africa Energy Interconnection to Promote Hydropower Resource Development and Achieve the Co-development of Electricity, Mining, Metallurgy, Manufacturing and Trade	1	Cameroon-Nigeria ±660 kV DC Project	400	1100	15	2030
	2	D.R. Congo-Guinea ±800 kV Three Terminals DC Project Phase I	800	4500	74	2030
	3	D.R. Congo-Zambia ±800 kV Three Terminals DC Project	800	2200	44	2030
	4	R. Congo-Nigeria ±660 kV DC Project	400	2000	23	2030
Global Energy Interconnection Development and Cooperation Organization May 2019	5	Ethiopia-South Africa ±800 kV DC Project	800	2800	45	2030
D Grean Form Organization Organion	6	D.R. Congo-Nigeria ±800 kV DC Project	800	2000	38	2040
	7	R. Congo-Ghana ±800 kV DC Project	800	2800	45	2040
	8	D.R. Congo-Guinea \pm 800 kV DC Project Phase II	800	4500	70	2050
	9	D.R. Congo-South Africa ±800 kV DC Project	800	3800	54	2050
	10	D.R. Congo-Ethiopia ±800 kV DC Project	800	4000	56	2050
	11	D.R. Congo-Morocco ±1100 kV DC Project	1000	6500	94	2050
	12	Ethiopia-Egypt ±800 kV DC Project	800	1900	37	2050



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African Energy Interconnection Sustainable Development Alliance (AEISDA)



A Cooperation Agreement between Republic of Guinea and GEIDCO was signed, during the 2018 Beijing Summit of the Forum on China-Africa Cooperation.



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African Energy Interconnection Sustainable Development Alliance (AEISDA)

Work Plan:

- ≻ Later 2019, Council meeting and Inaugural meeting of AEISDA.
- ➢ November 2019, China-Africa Energy and Power Conference
- By 2020, complete the planning of Central and West Africa Energy Interconnection and the overall planning of Co-development Model, and work out a project list.
- From 2021 to 2025, undertake the research and promote the construction of key projects

Consultations with other partners and initiatives are ongoing.



Thank You !

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