



Country Presentation by CSG

October. 2020



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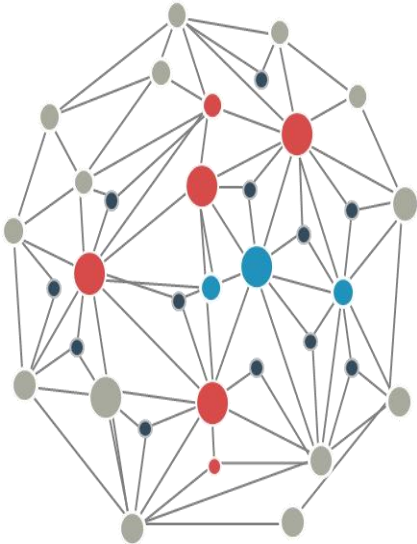
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A Brief introduction of CSG



Established on
December 29, 2002



Employees(2019):
About 280,000



Population (2019):
254 million.



Clientele (2019):
92.7 million end users



Sold electricity (2019):
1052 TWh



Revenue (2019):
81 billion USD



Fortune Global 500: **111th in 2019**

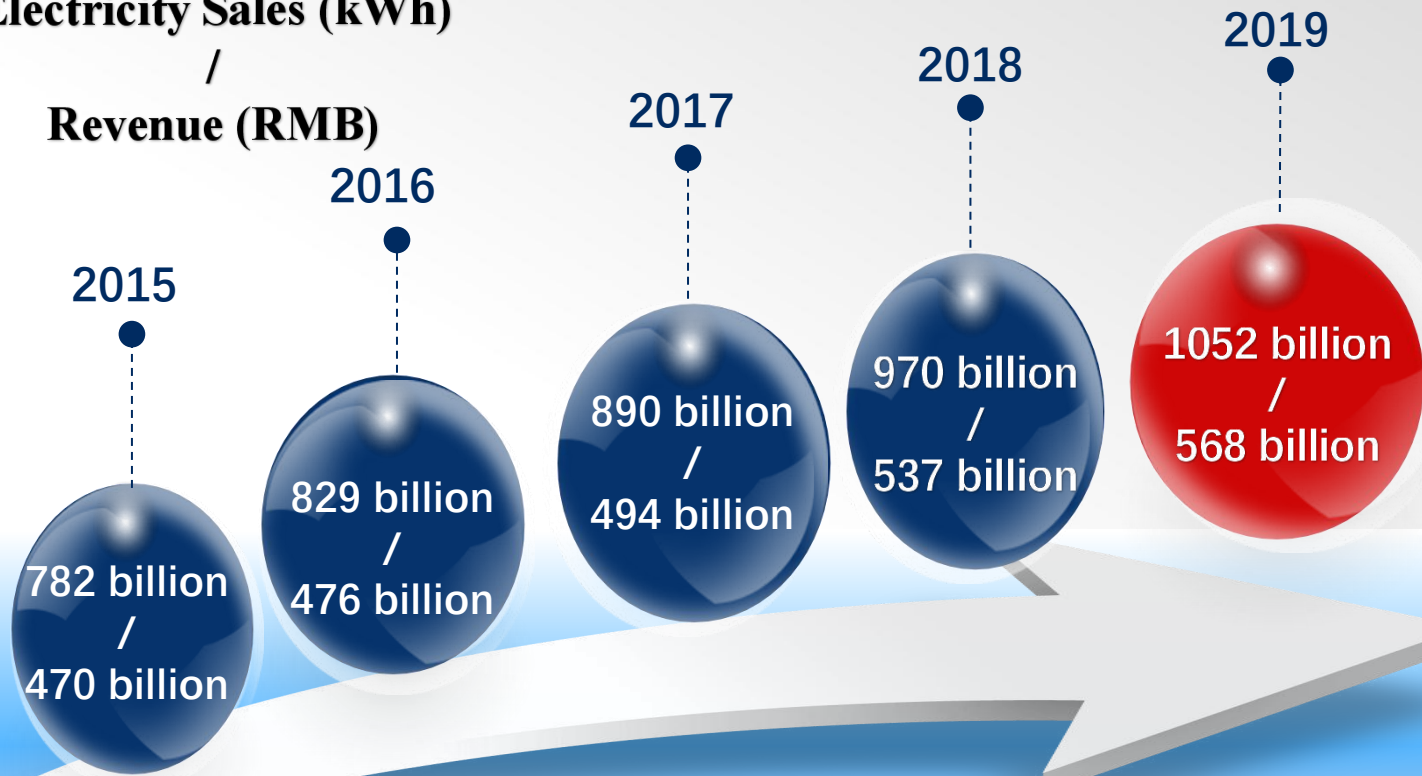
- From January to August 2020:
- The total electricity consumption of the five provinces in CSG reached 834.4 billion kWh, with a year-on-year increase of 3.0%, among which Guangdong province's 447 billion kWh increased of 1.3%, Guangxi 129 billion kWh increased of 5.6%, Yunnan 124 billion kWh increased of 9.0%, Guizhou 100 kWh increased of 1.4%, Hainan province has 24 billion kWh, up 0.7%.



Development Overview

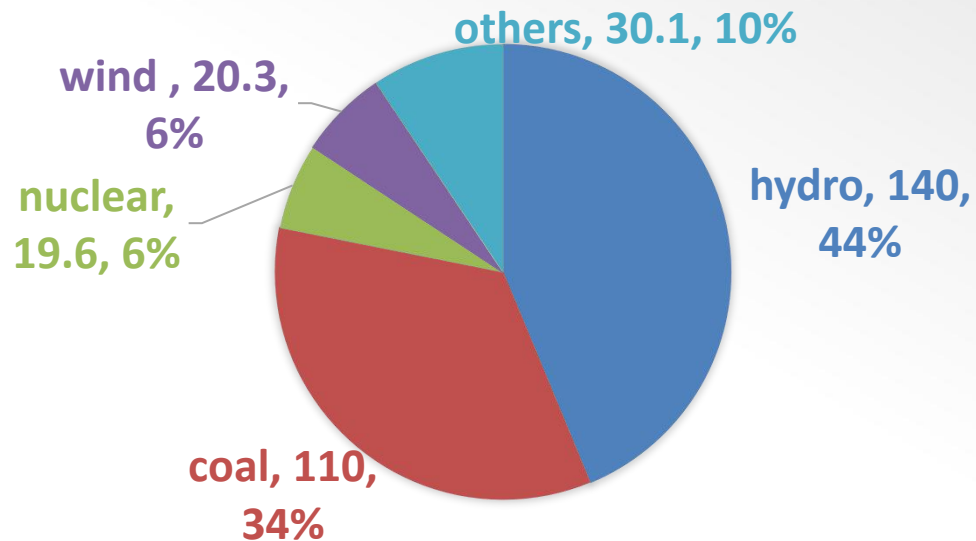
Electricity Sales (kWh)

/
Revenue (RMB)



By the end of 2019, the total installed capacity is expected to be about 320 GW. Energy resources include hydro, coal, nuclear, pumped hydro, oil, natural gas, wind and etc. The proportion of clean energy in the total installed capacity is up to 52.9 %.

Divided by Types





Long Distance

2000 km



Bulk Capacity

52.5 GW



Ultra-high Voltage

800kV



AC/DC Hybrid Operation

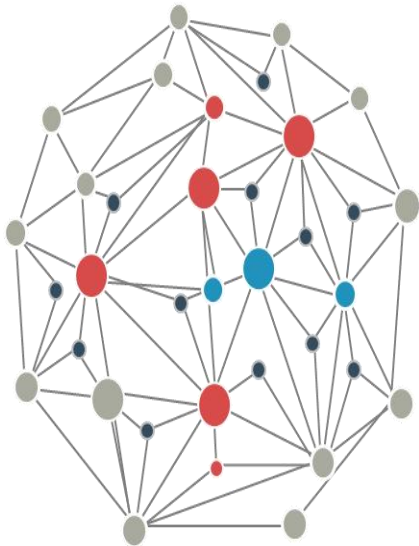
8 AC + 11 DC

West-to-East Power
Transmission

Projects of CSG:

19 channels, 8 AC
and 11 DC.



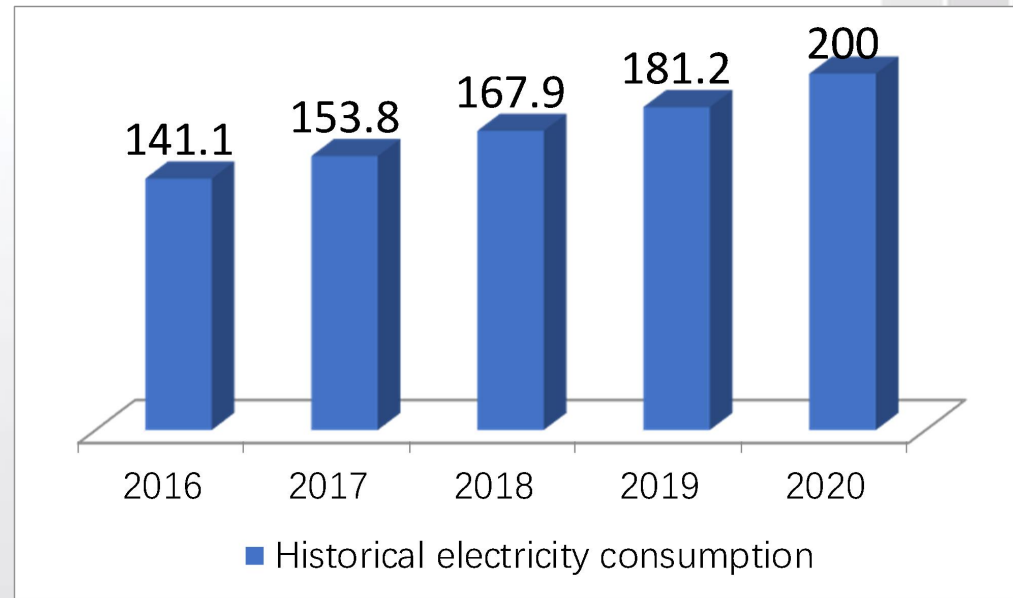


Electric Energy Forecasting

(take Yunnan for example)

■ The total electricity consumption of Yunnan in 2019 is **181.2TWh**, the peak load in 2019 reached **29.30GW**, the growth rate of electricity consumption was **5.9%** from 2016 to 2020. The total electricity consumption in 2020 is forecast to reach **200TWh**.

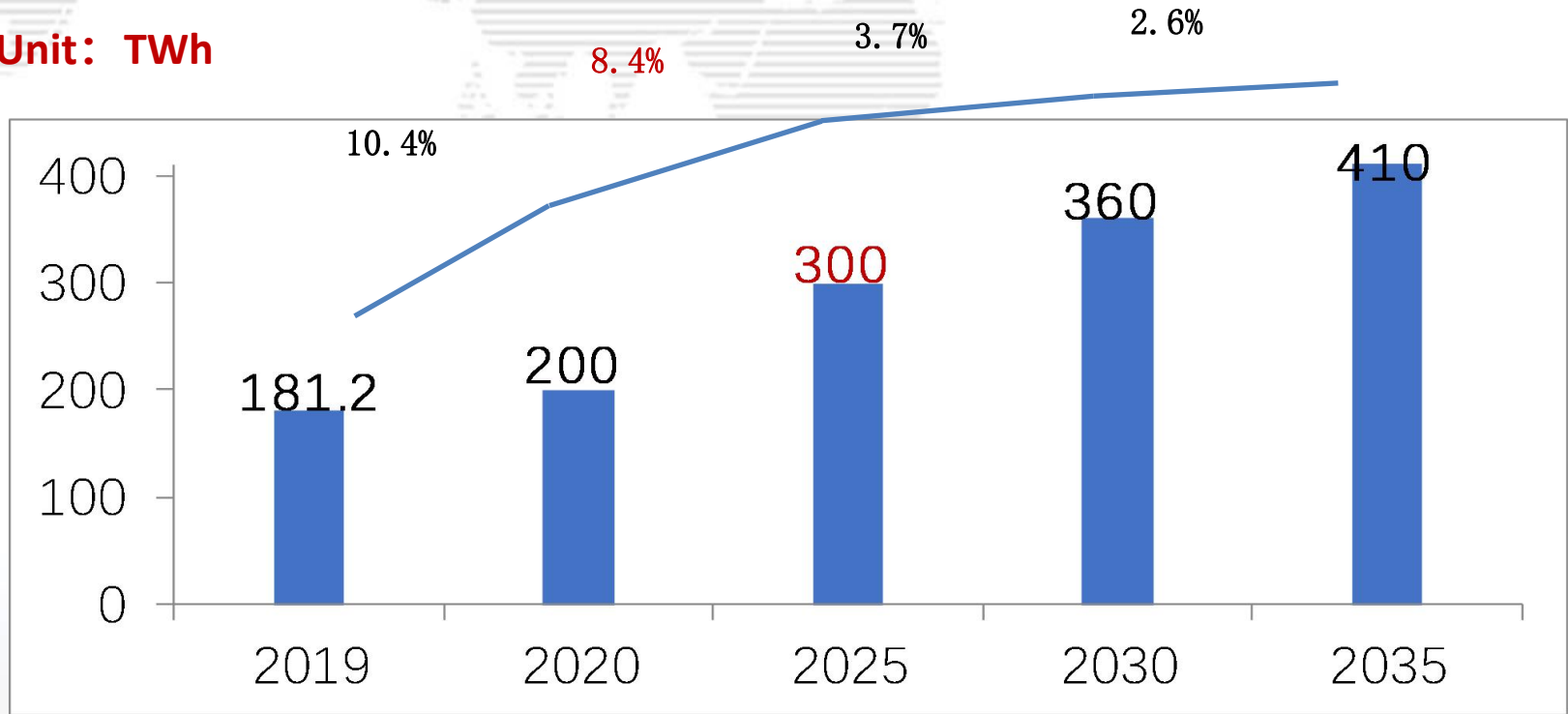
■ The installed generation capacity in 2020 will reach about **100GW**, of which hydro power take a part of **72%**.



Electricity consumption in Yunnan (2016-2020)

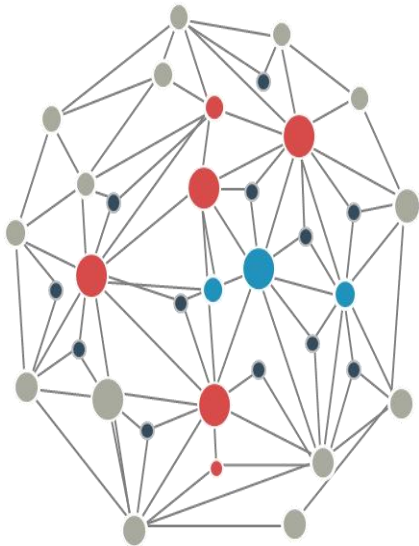
Electricity Consumption Forecast

Unit: TWh



Power Generation Forecast

- The installed generation capacity in 2025 will reach about **130GW**, of which hydro power take a part of nearly **70%**.



On-going Efforts in Power Grid Interconnection

Outlook on Power Interconnection in GMS

CSG is committed to promoting regional connectivity and common development with neighboring countries through power interconnection projects.

Ongoing key projects include:

- China-Laos-Thailand power interconnection
- China-Vietnam power interconnection
- Myanmar-China power interconnection





Thank you!