

COUNTRY PRESENTATION

(People's Republic of China)

RPTCC-25

21-22 Mar 2019

Bankok, Thailand

MACRO INDICATORS (CSG range)

INDEX	2017	2018
Total GDP (US\$)	12243 Billion	will be officially published by the end of May
GDP per capita (US\$)	8582.9	
GDP growth rate (%)	6.9	
Per capita electricity consumption (KWh/person)	4583	

COUNTRY'S POWER SYSTEM

ENERGY PRODUCTION

AVERAGE GROWTH RATE (%)	2014-2018
Peak Load	5.5
Energy Production	6.2

GENERATING CAPACITY, in MW

Sources	2017	2018
Hydro	102600	105997
Thermal	133879	137379
Gas-fired thermal	16846	20485
Coal-fired thermal	117033	116894
Oil-fired thermal	-	-
Combined-Cycle	-	-
Import/export	-	-
Nuclear	13936	16772
Renewables Others (Wind +Solar)	32299	30142
Total	282712	302302

TRANSMISSION CAPACITY, as of 31 Dec 2018

Voltage Level	Substation		Transmission (Circuit-km)
	Number	MVA	
EHV (800 kV)	3/6(HVDC) 0(AC)	3/15000 0(AC)	3/4707 0(AC)
EHV (400 kV or 500 kV)	7/13(HVDC) 125	7/2040(HVDC) 294/252274	7/7163(HVDC) 584/45805
HV (220 – 230 kV)	976	2104/359536	2968/79906
Medium Voltage (132 – 66 kV)	3254	6069/353375	7620/100163

POWER LOSSES (LAST TWO YEARS)

INDEX	2017	2018
TOTAL LOSS (%)	6.52	6.31

COUNTRY'S INTERCONNECTION PROJECTS

INDICATE CURRENT INTERCONNECTION

Adjacent to GMS countries, CSG has **12 AC cross-border lines** with Laos, Myanmar and Vietnam.

4 circuits with Myanmar
 2X220kV Shweli I-Hannong AC links since 2009
 1X500kV Dapein I-Dayingjiang AC links since 2009
 1X110kV Menglong-Jingyang AC links since 2015

7 circuits with Vietnam
 1X110kV Hekou-Lao Cai AC links since 2004
 1X110kV Shengou-Mong Cai AC links since 2005
 2X110kV Maomaotiao-Ha Giang AC links since 2005
 2X220kV Guman-Lao Cai AC links since 2006
 1X220kV Malutang- Ha Giang AC links since 2007



1 circuit with Lao PDR
 1X115kV Mengla-Namo AC links since 2009

STATUS OF POWER TRADE

No.	Name of Interconnection (from – to)	Voltage, kV	2017		2018		Import/Export
			GWh	MW	GWh	MW	
1	China-Vietnam	220kV 110kV	1321	578	1722	532	Export
2	China- Lao	110kV	48	33	0	0	Export

Renewable Energy Production updates

Renewable Energy Production (MWh)	2017	2018
Hydro	35349	37689
Wind	3386	3926
Solar	513	805
Total (Ratio)	39248 (40.9%)	42420 (40.7%)

Policy and regulatory updates

■ No policy with regard to tariff was updated in 2018;

■ Update in CSG power market progress:

- contract path method for inter-province transmission; postage stamp method for provincial transmission;
- Power Exchange centres have been set up in each province in CSG; There are altogether 35 Power Exchange Centers (2 inter-provincial PX and 33 provincial PX) in China;
- Generation trade in market greatly increased last year, over 30% year-on-year growth;
- Spot Market has been put into trial operation in 3 provinces (Guangdong, Gansu and Shanxi).

MOUs that CSG signed with foreign cooperators since 2018

- NO UPDATE