

New Energy Outlook for China in 2016

CREIA

New Power Sources Application in 2015

129.74GW in total

Coal-fire
64,000MW

Low price of coal;
Local governments
drives investment

Water
16,080MW

Development momentum
continues;
Further explore southwest
and Tibetan area;
Fast rising cost

Wind
32,970MW

Stimulation from
lowering of
benchmarking price
leads to the record
year of application

Solar PV
15,130MW

Annual target
achieved;
Application heat will
continue to early 2016
with lowering of
benchmarking price

Slowing growth of primary energy consumption

Data in 2013, revised by Statistics Bureau

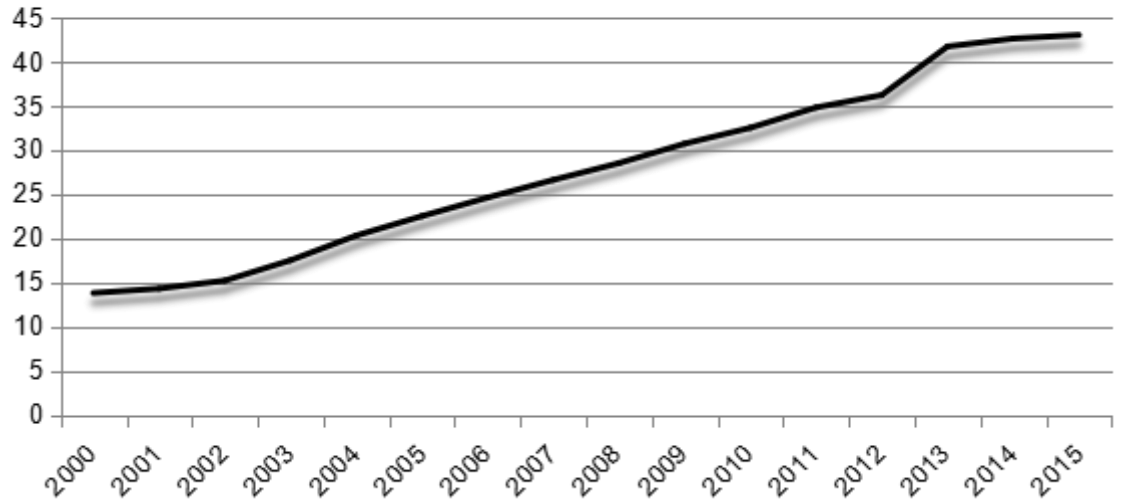
1. 40 million tec increase in 2015 than last year

Growth of primary energy consumption has shown a significant slowdown in 2013.

2. target for 2020: 4.8 billion tec

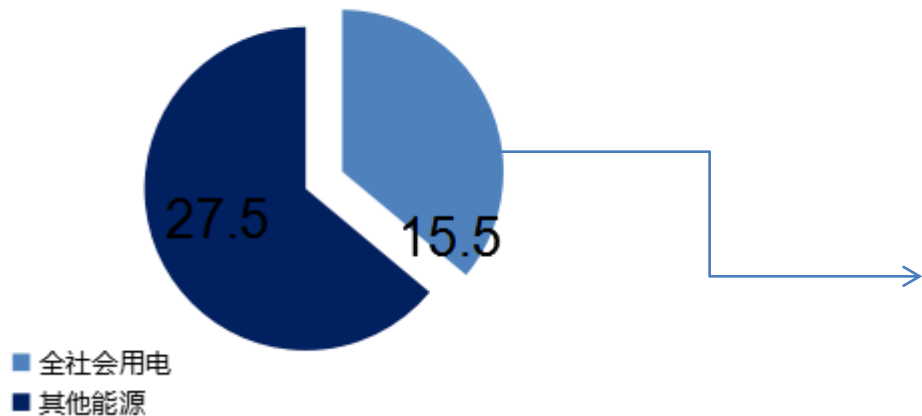
By 2020, restrict the total primary energy consumption within around 4.8 billion tec; the target of 15% non-fossil power means 720 million tec or 250 billion kWh of electricity

Total consumption of primary energy (0.1 billion tec)



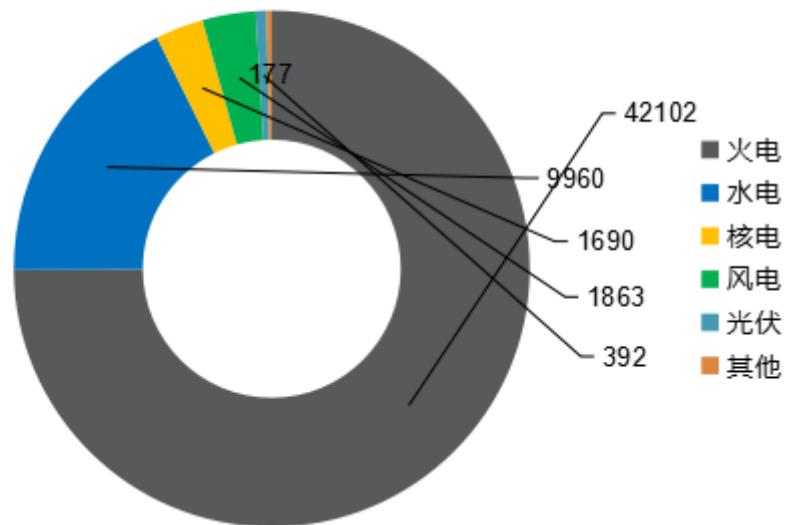
Current status of power market

power from coal-fire account for three quarters



Unit: 0.1 billion tec

2015 power generation / 5618.4 billion kWh



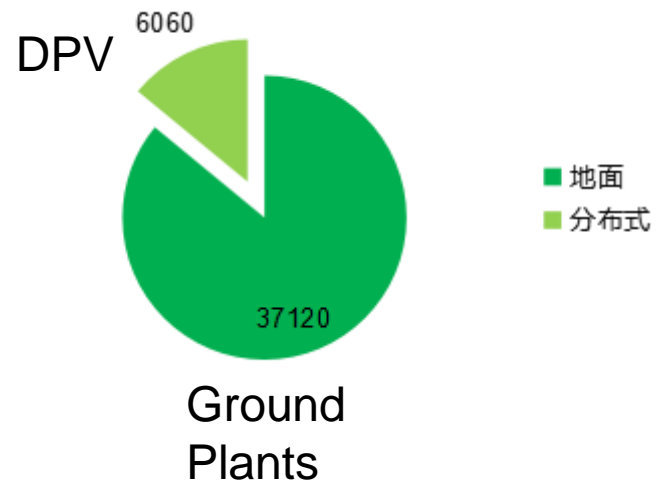
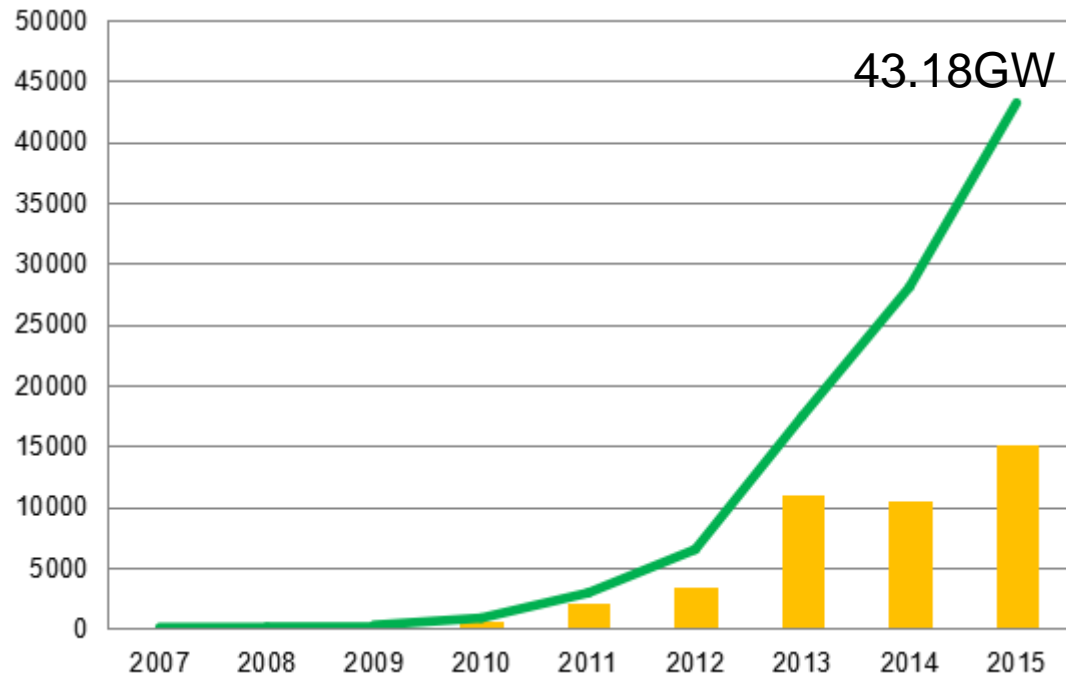
Unit: 0.1 billion kWh

2020 power market plan

15% target is challenging; more coal-fired power means more alternative renewable energy power are needed .

	Coal-fire	Water	Nuclear	Wind	Solar PV
target application by 2020(0.1 billion kWh)		3.5	0.58	2.5	1.5
Operation hours		3500	7000	1800	1300
Power generation		12250	4060	4500	1950

Solar PV market



Benchmarking price changes of Solar PV

**0.9-1yuan/kWh for large-scale;
0.42yuan/kWh for distributed**
Over 10GW of new application; Golden
Sun Policy is replaced by Feed-in tariff

**Bid on power price,
0.8-0.98yuan/kWh**
new power price policy released;
stimulate development in middle and east
areas; new model of bid start at Hohhot,
capital of Inner Mongolia

2012

1yuan/kWh, excl. Tibet

New application is 3.5GW, opened the
big screen of solar PV application

2013

**tariff remains the same;
curtailment appear**

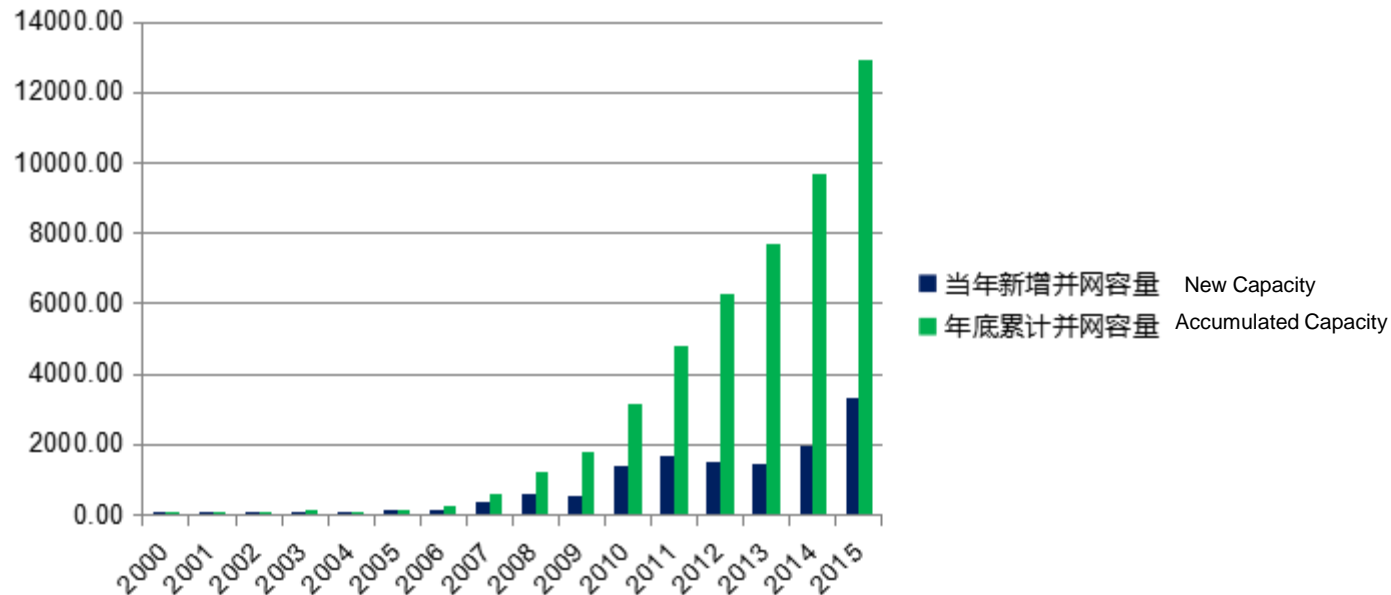
The government strives for the
stabilization of tariff, but curtailment
begins to harness benefits; trading of
permission is prohibited

2014

2015

Grid-connected capacity of Wind power in China

Unit: 10MW



Benchmarking price changes on wind power market

Benchmarking price for four areas

0.61, 0.58, 0.54, 0.51 (yuan/kWh)

Lowering again

0.58, 0.51元, 0.47, 0.44 (yuan/kWh)

2006

Bidding, one project one price

2009

Lowering of price; achieve grid parity by

0.6, 0.54, 0.50, 0.47(yuan/kWh)

2016

2018