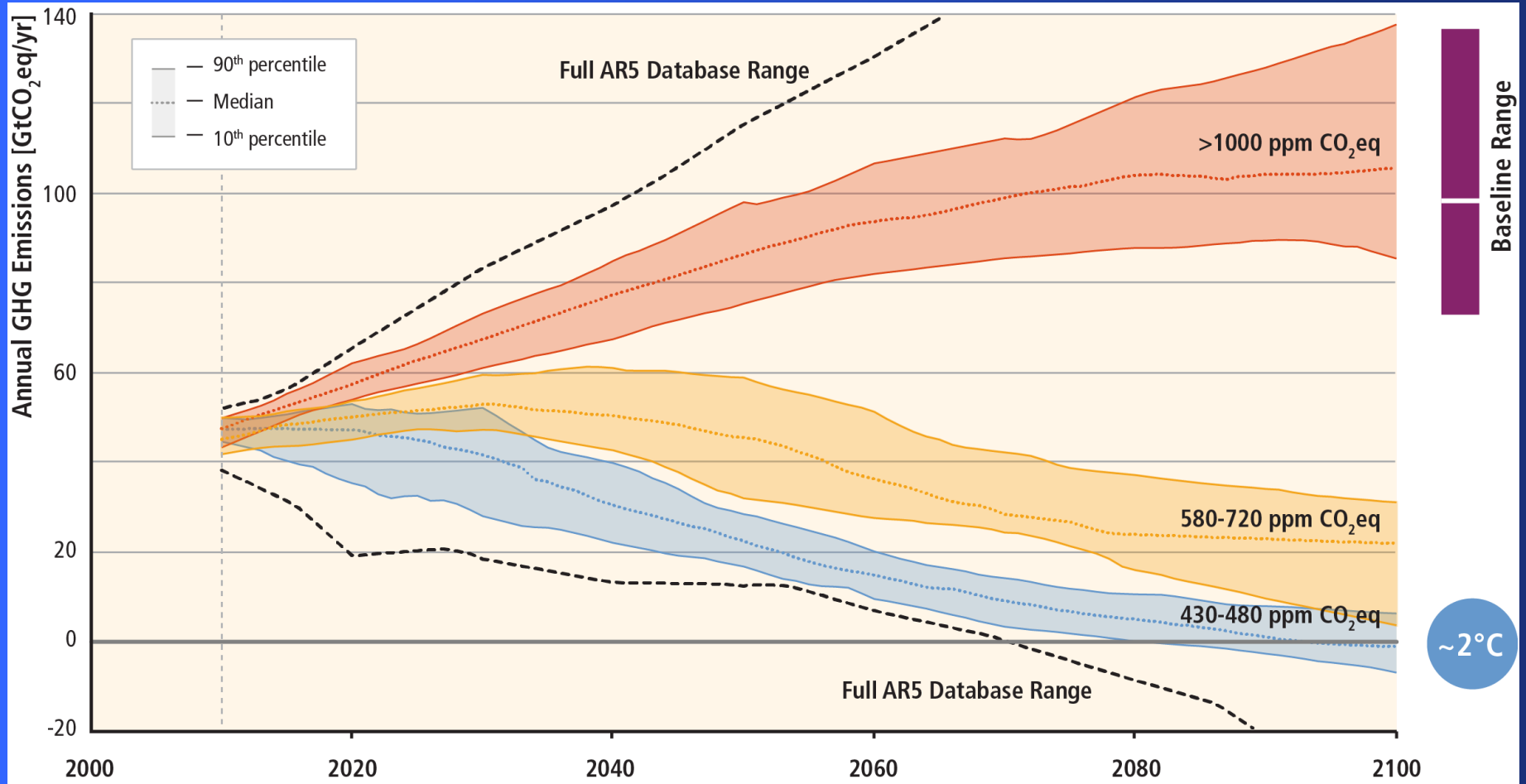


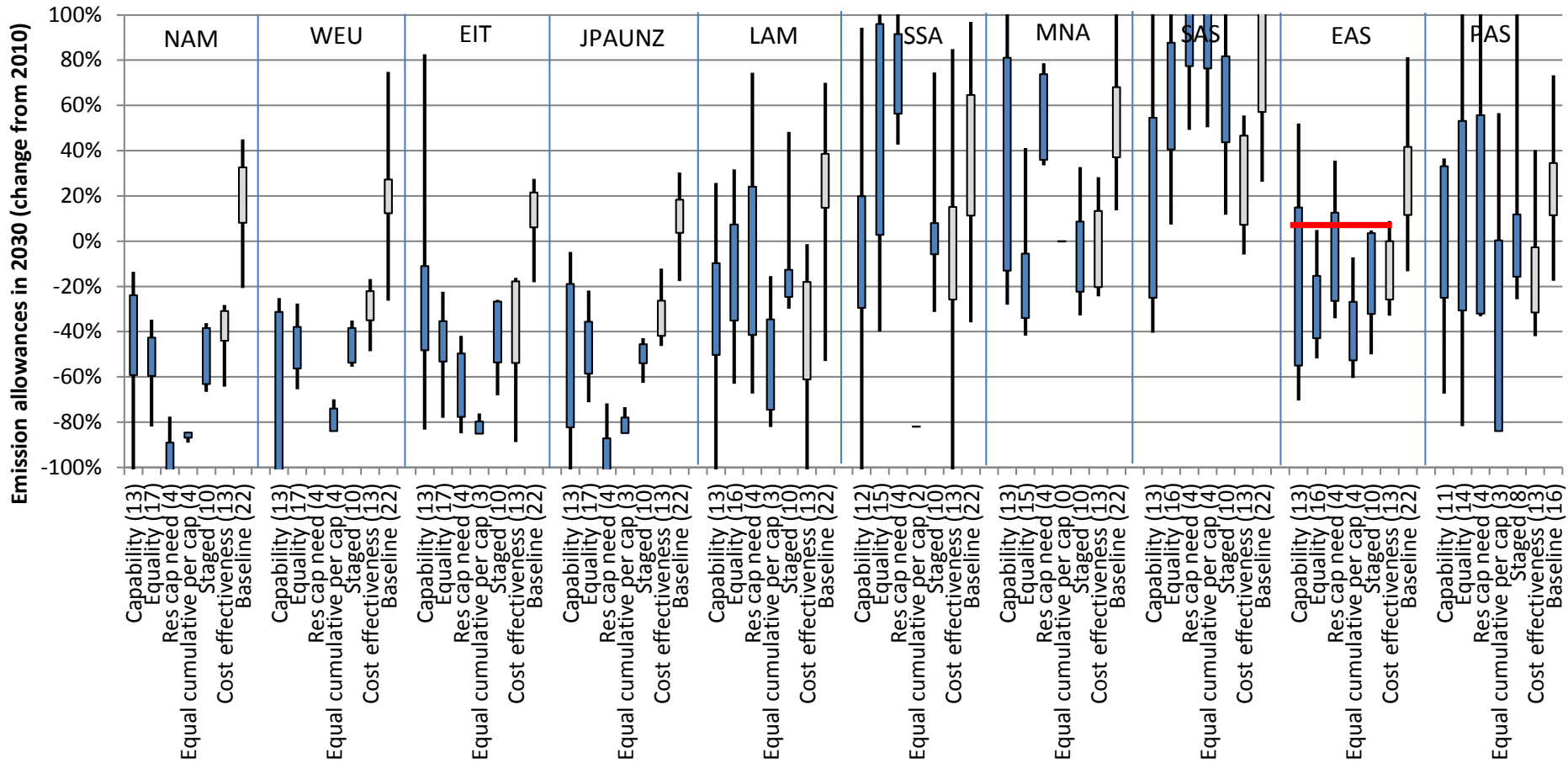
**Can We Do it?**  
**China's Low Carbon Future: 2 degree pathway**

Jiang Kejun

Energy Research Institute, China  
ISAP 2015, July 28-29  
Yokohama

# IPCC AR5 Scenarios

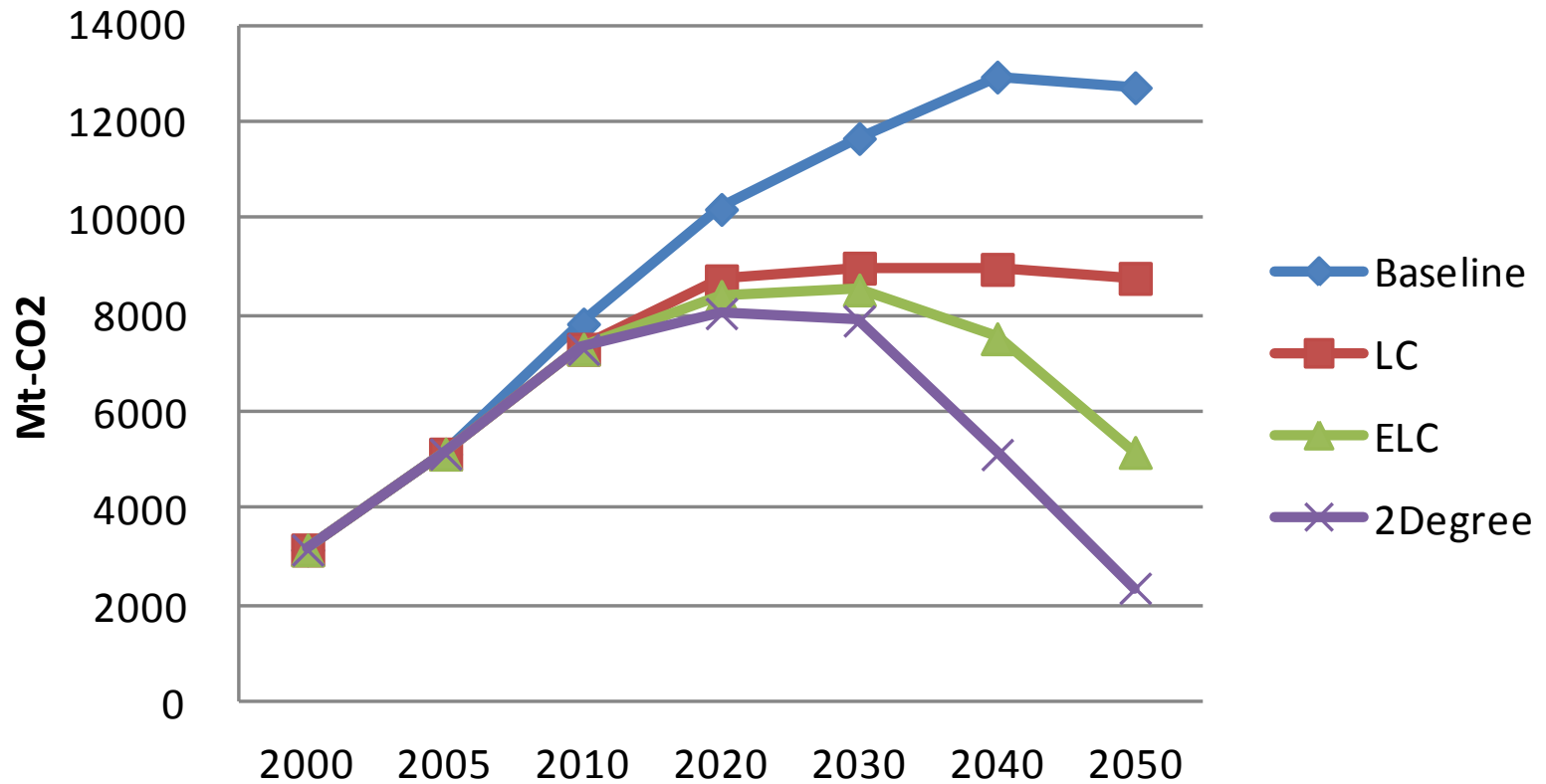




**Figure 2. Emission allowances by allocation category for Cat 1, i.e. 425-475 ppmCO<sub>2</sub>e, in 2030 relative to 2010 emissions (min, 20th percentile, 80th percentile, max). Number of studies in brackets. GHG emissions (all gases and sectors) in GtCO<sub>2</sub>e in 1990 and 2010 were OECD90 13.4, 14.2, EIT 8.4, 5.6, ASIA 10.7, 19.9, MAF 3.0, 6.2, LAM 3.3, 3.8 .**

## Transformation: CO2 emission, a rapid change

### CO2 Emission in China



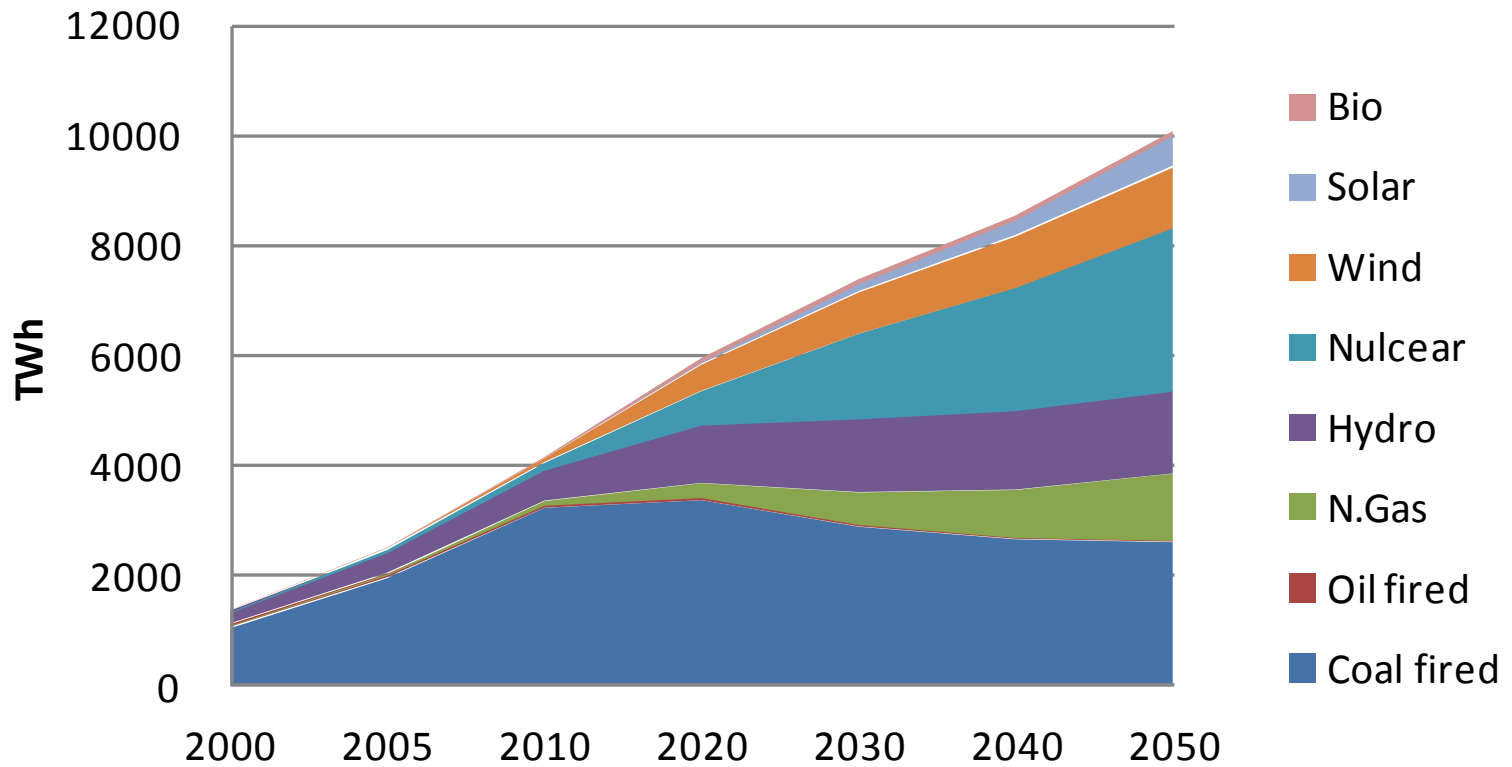
# What's the future of China's low carbon policy: a big picture

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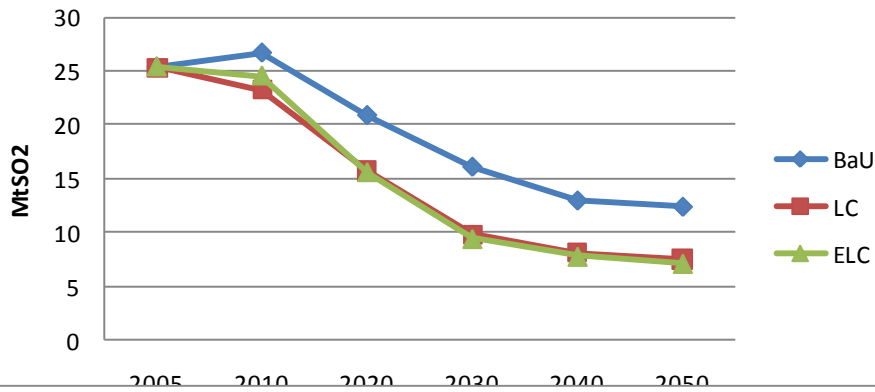
- Economic structure optimization policies
- Energy efficiency policies
- Renewable energy/nuclear power generation oriented policies
- CCS
- Low carbon consumption/ lifestyle
- Land use emission reduction policies: so far relatively poor



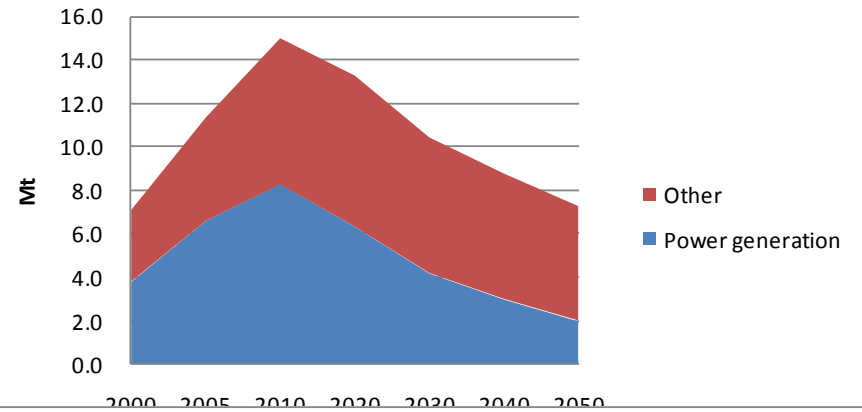
# Power Generation



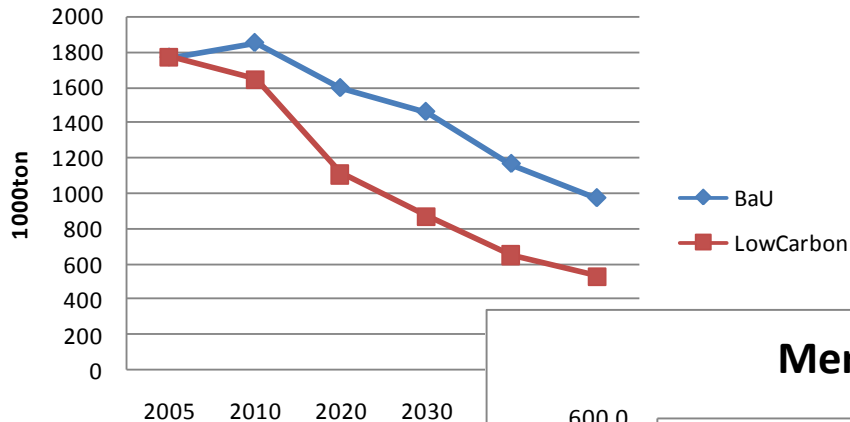
### SO2 Emission



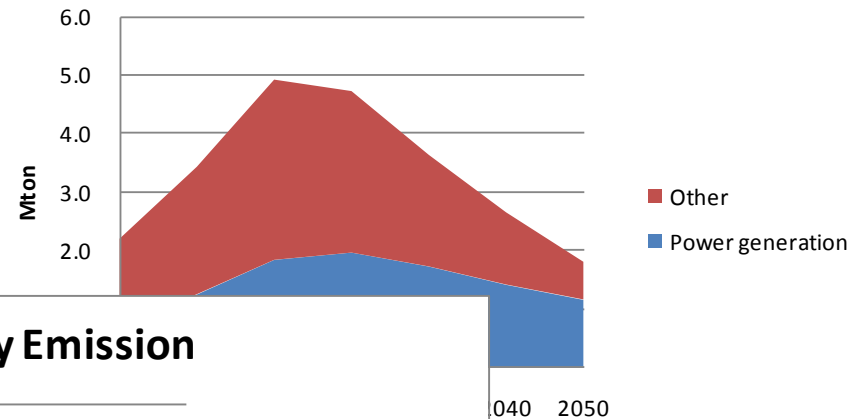
### NOx Emission in China, ELC scenario



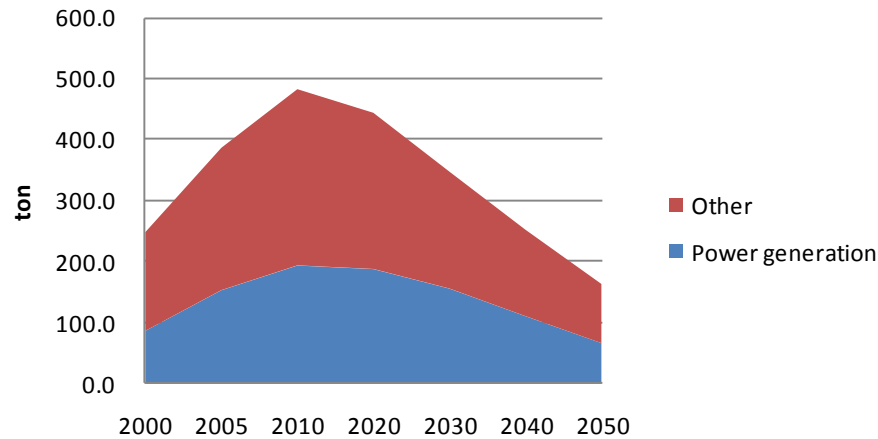
### Black Carbon Emission in China



### PM2.5 Emission

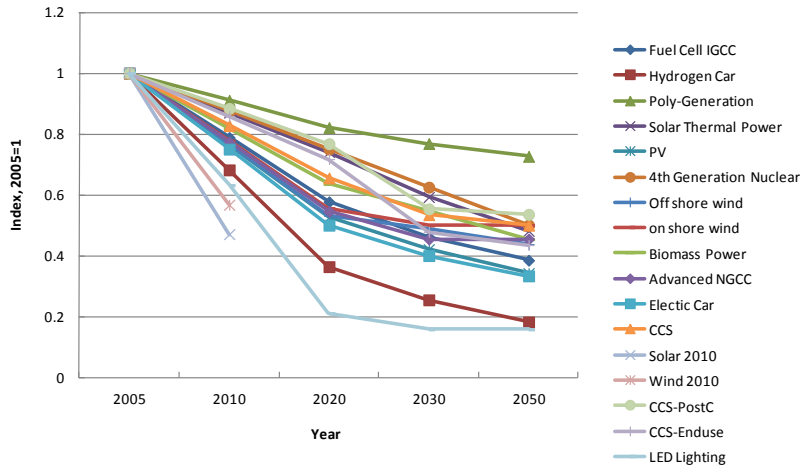


### Mercury Emission





### Technology learning curve



Price: US\$38000

Subsidy: US\$15000(Shanghai), no need to apply number plate(cost US\$10000)

US\$18000(Beijing), no need to apply number plate(By Oct. 2012, 1.1 million people apply for 20000 number plates per month),

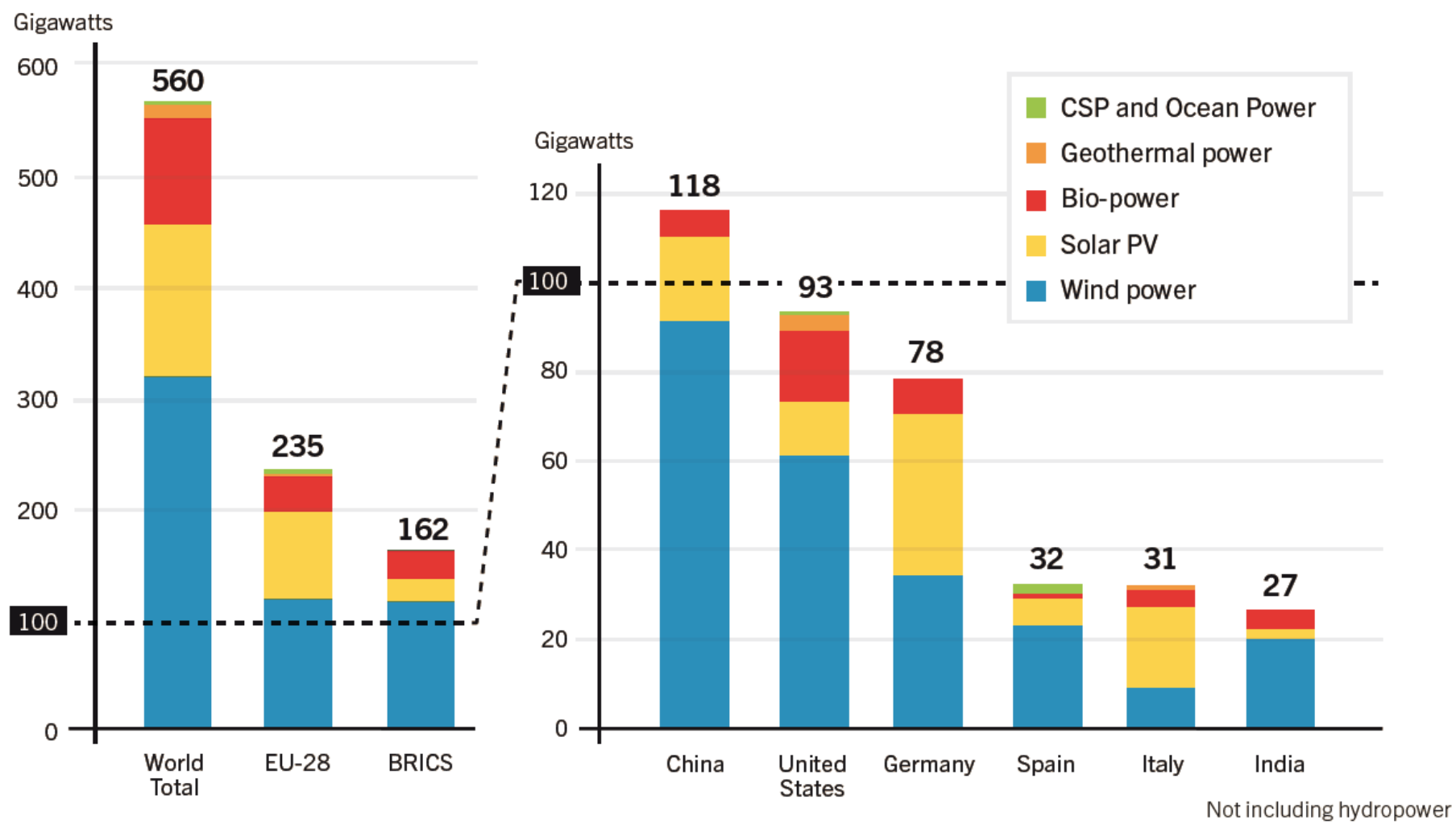
By 2020, Wind 200GW to 250GW, Solar 50WG

## The New China-US Announcement: keywords

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- Considering global 2 degree target
- China: peak by 2030, make effort to peak earlier
- US: 26-28% emission reduction by 2025 compared with that in 2005
- Both Will make more strict target in future

**Figure 4.** Renewable Power Capacities in World, EU-28, BRICS, and Top Six Countries, 2013



## China's INDC: released in June 30

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- Wind power by 2020: 200GW
- Solar Power by 2020: 100GW
- Non-fossil fuel in TPE: 20% by 2030
- *New target in July 20: solar PV 150GW*

# The New Five Year Plan on Air Pollution Control: can drive CO2 peak before 2025

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- From 2013 to 2017
- Target: 10% to 25% improvement of air pollution
- A package of policies
- In which: reducing coal use in key areas including Beijing-Tianjin-Hebei region, Yangtze Delta Regions, Pearl River Delta Region
- Clean oil supply for vehicle, upgrade emission standard and oil quality
- Regulation on diffusion on high efficiency cars