

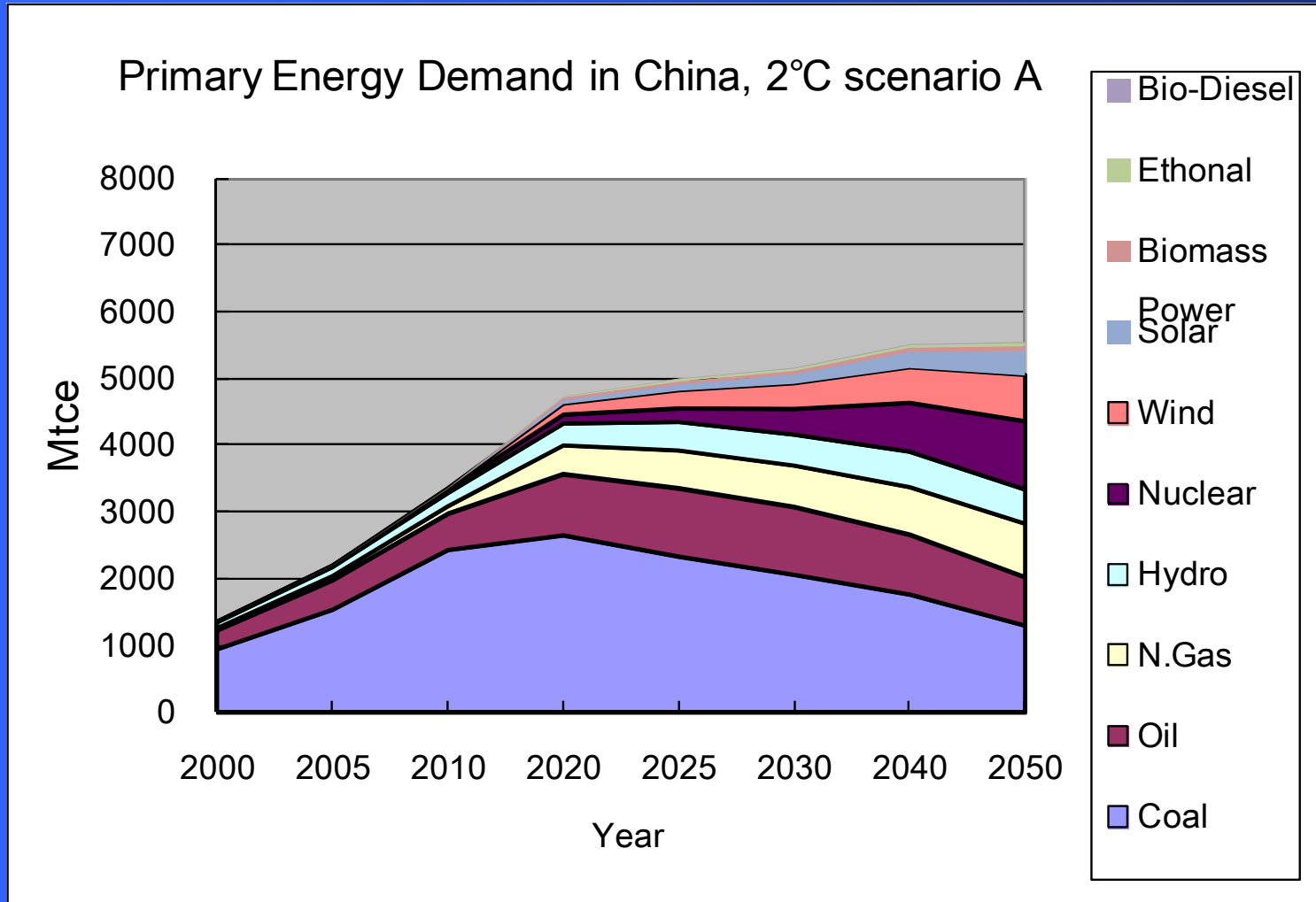
Roadmap of Coal Phasing Out in the 2°C/1.5°C Scenarios for China

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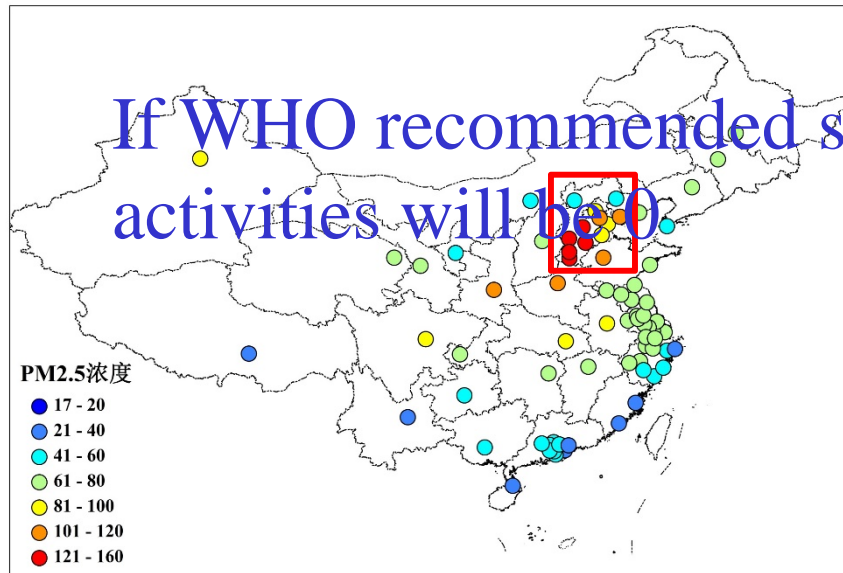
Open symposium: Aim for Decarbonized
Society from Low Carbon Society

We Need Rapid Transition : Put that into 13th Five Year Plan Primary Energy Demand

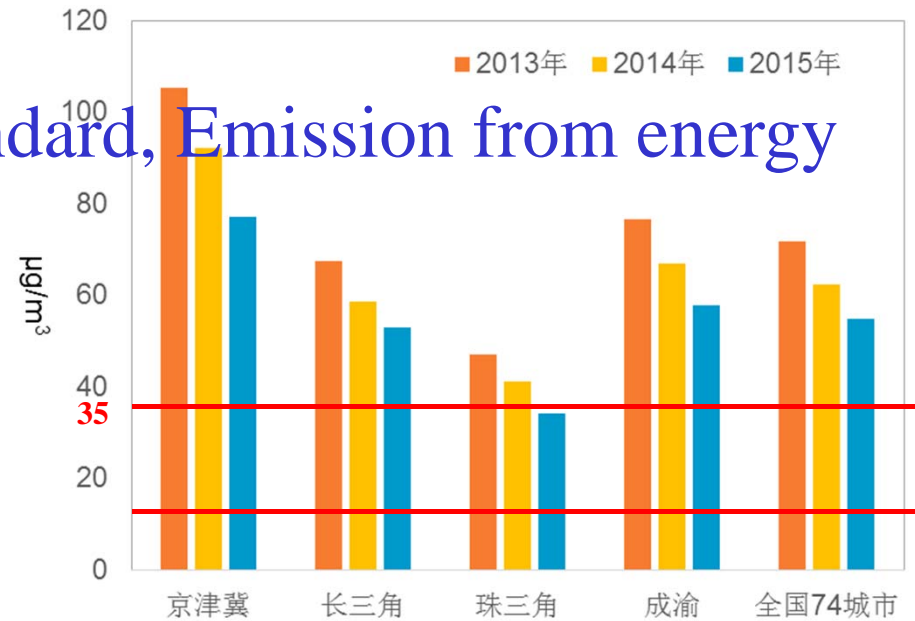


PM_{2.5} Concentration is much higher than standard

PM_{2.5} concentration of 74 cities in 2013



PM_{2.5} annual concentration from 2013-2015

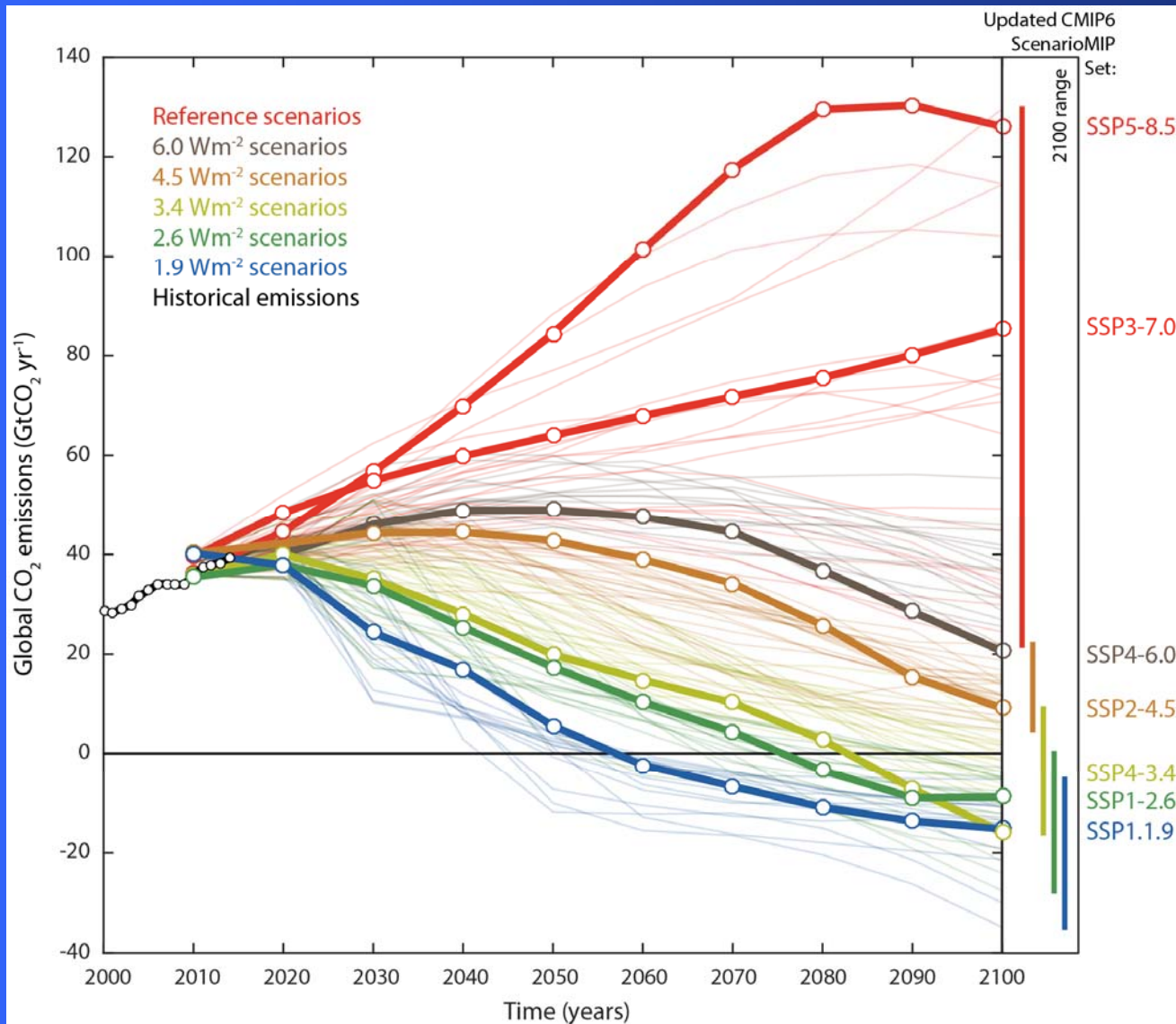


- 2013年京津冀地区所有城市PM_{2.5}年均浓度均超标，区域内PM_{2.5}年平均浓度达106µg/m³，虽2014、2015年空气质量有所改善，但仍大幅超过国家空气质量二级标准。

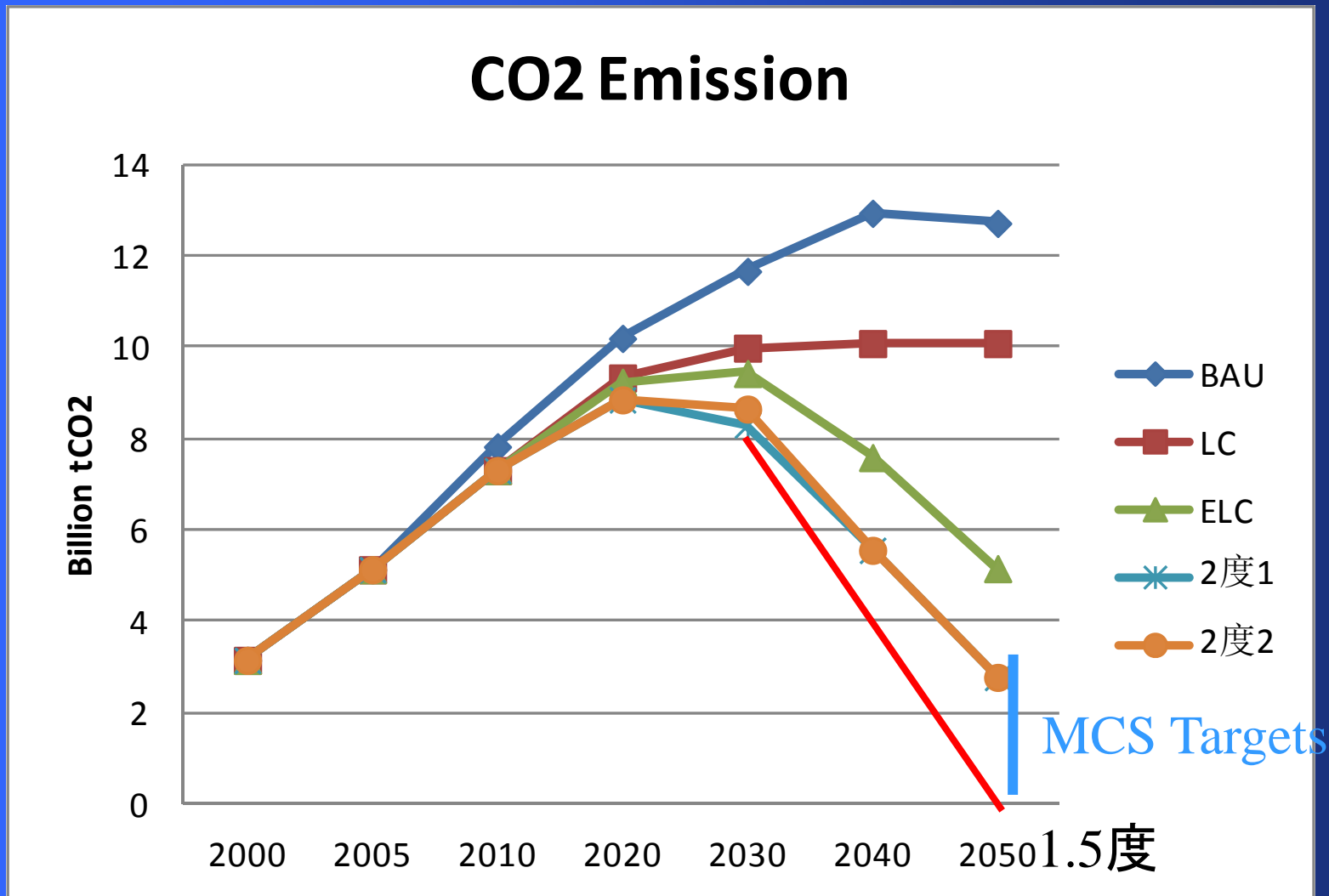


SUSTAINABLE DEVELOPMENT GOALS





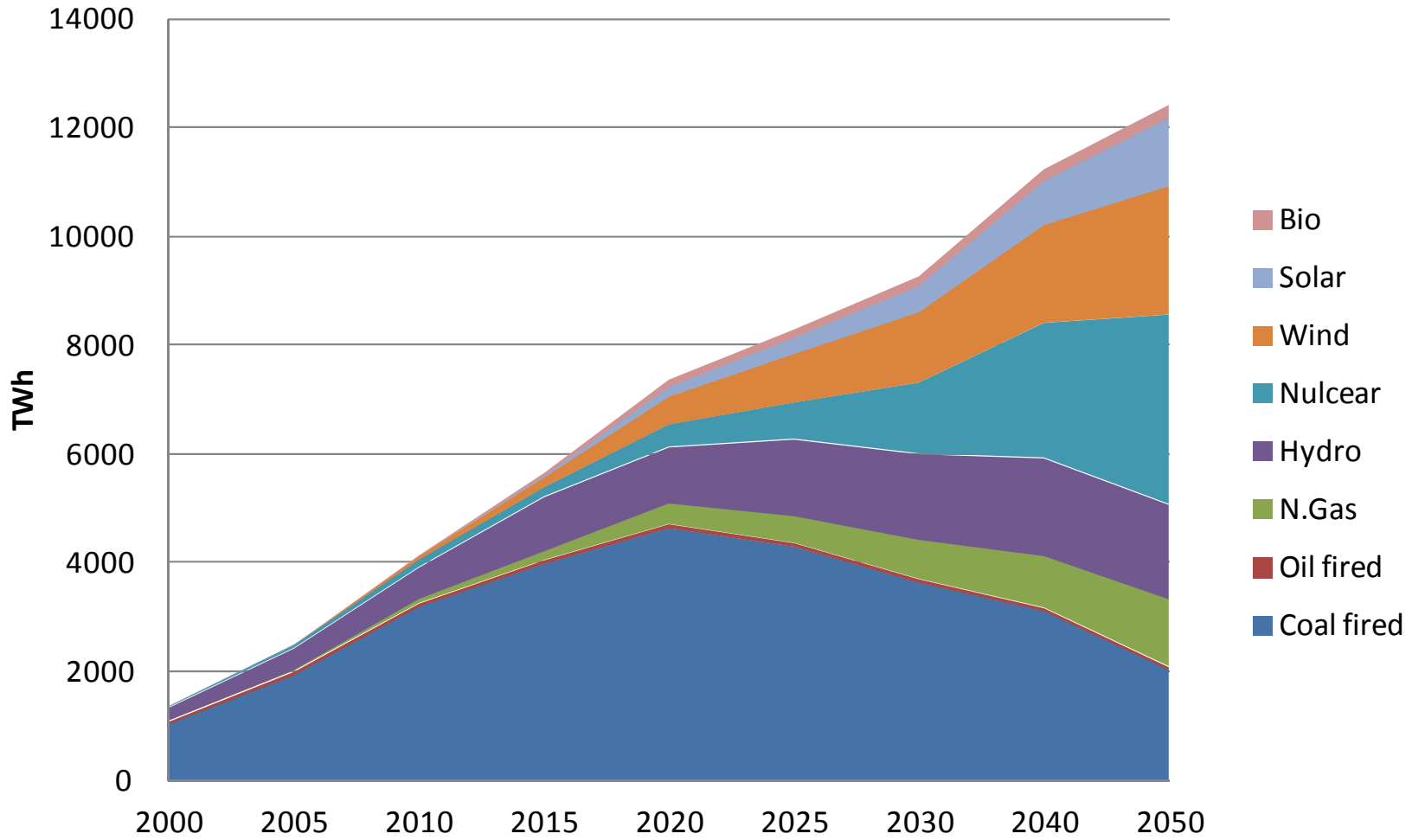
China's MCS: a proposal



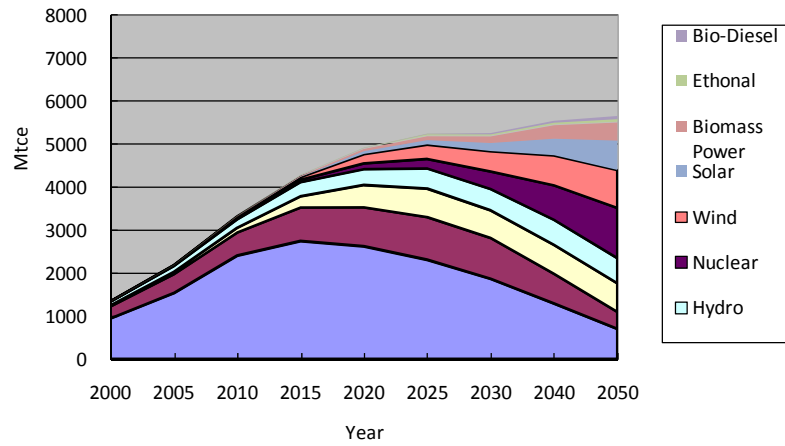
No Loser Policies

- Purpose: help sectors which are negative impacted to quit without damages
- Increase subsidy to coal related sectors
- Coal phasing out with the subsidy: increase electricity price from coal fired power plants, make sure to get their investment pay back.
- Policies to support unemployment from these sectors
- Subsidy comes from government budget, and additional charge from power sector

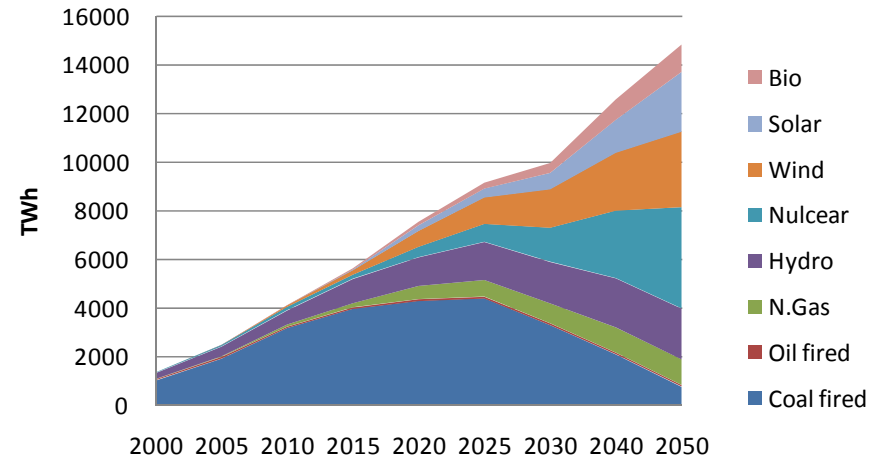
Power Generation, 2°C Scenario A



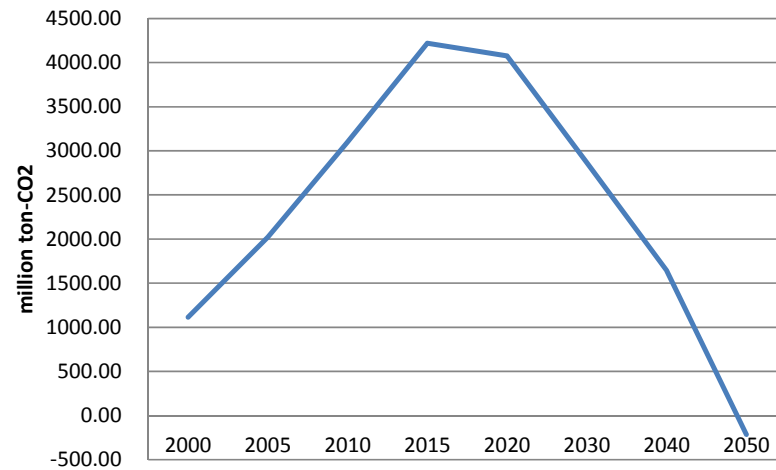
TPE, 1.5°C Scenario



Power Generation, 1.5°C Scenario

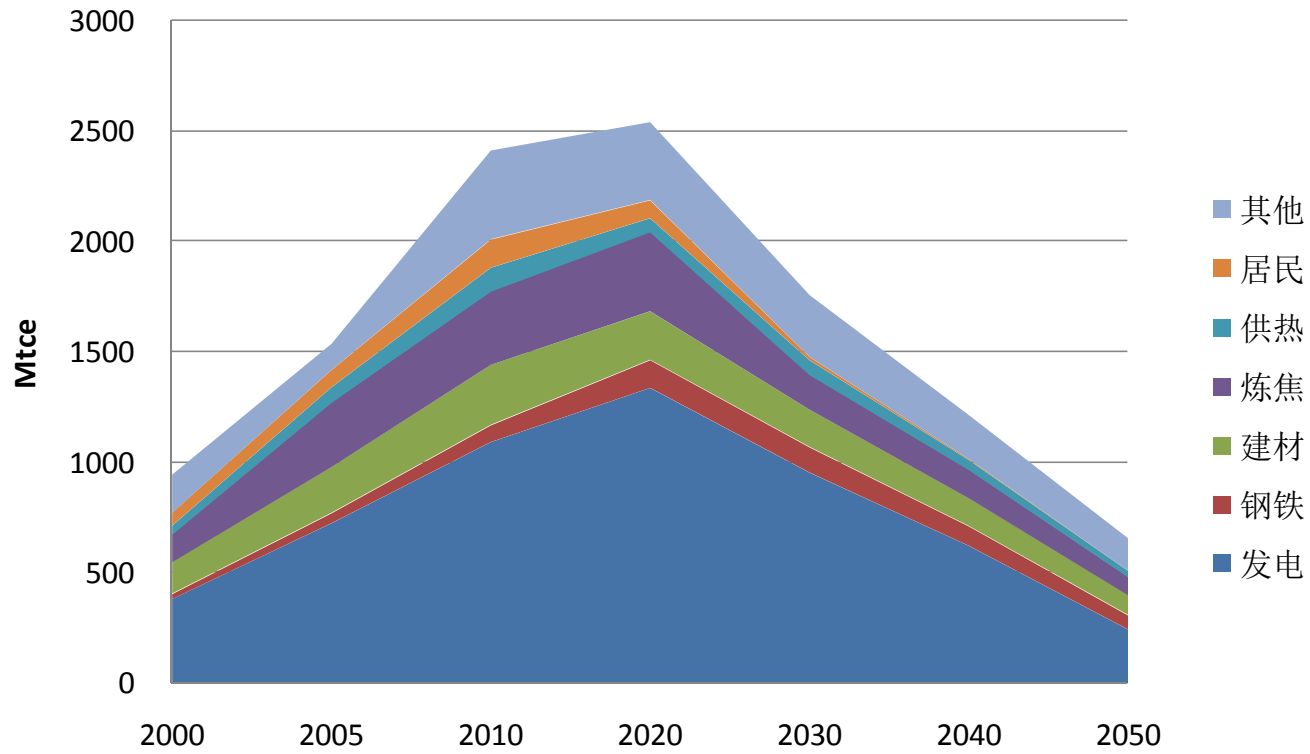


CO2 emission in power sector

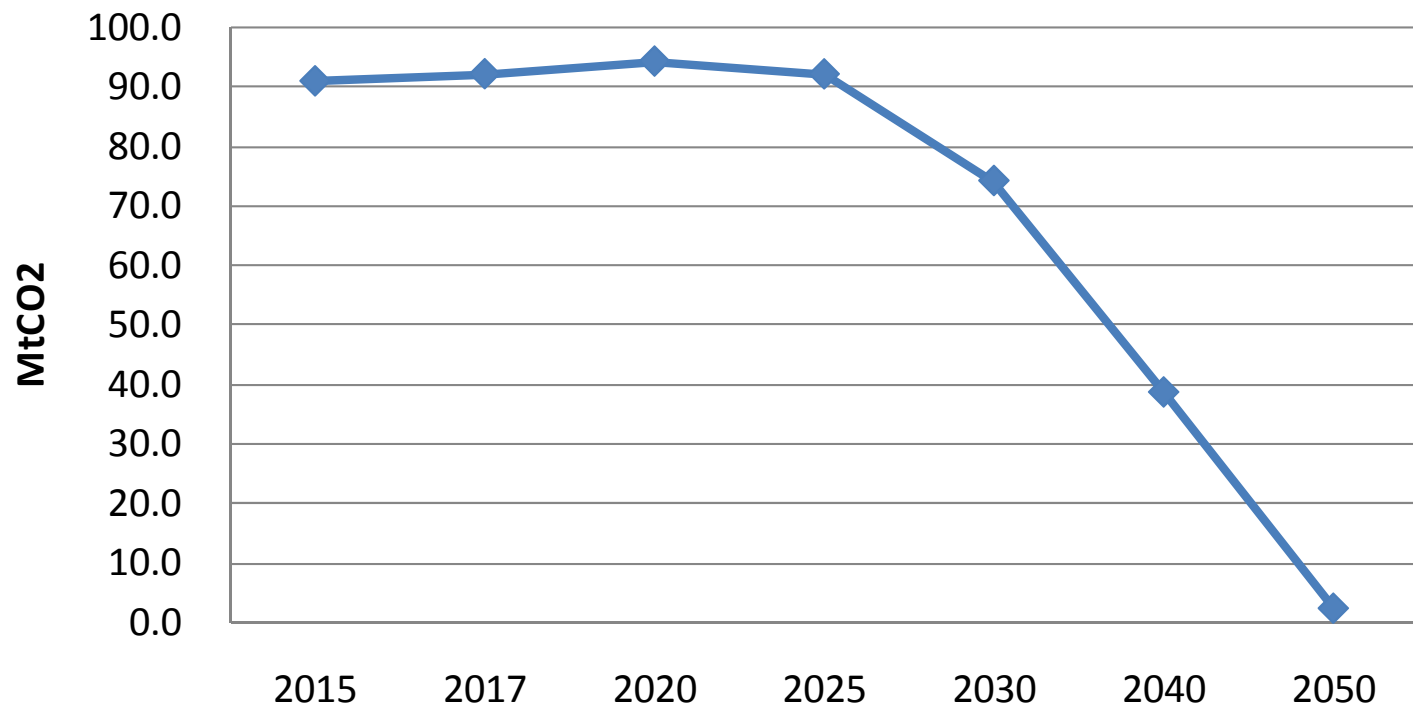


Coal demand in China

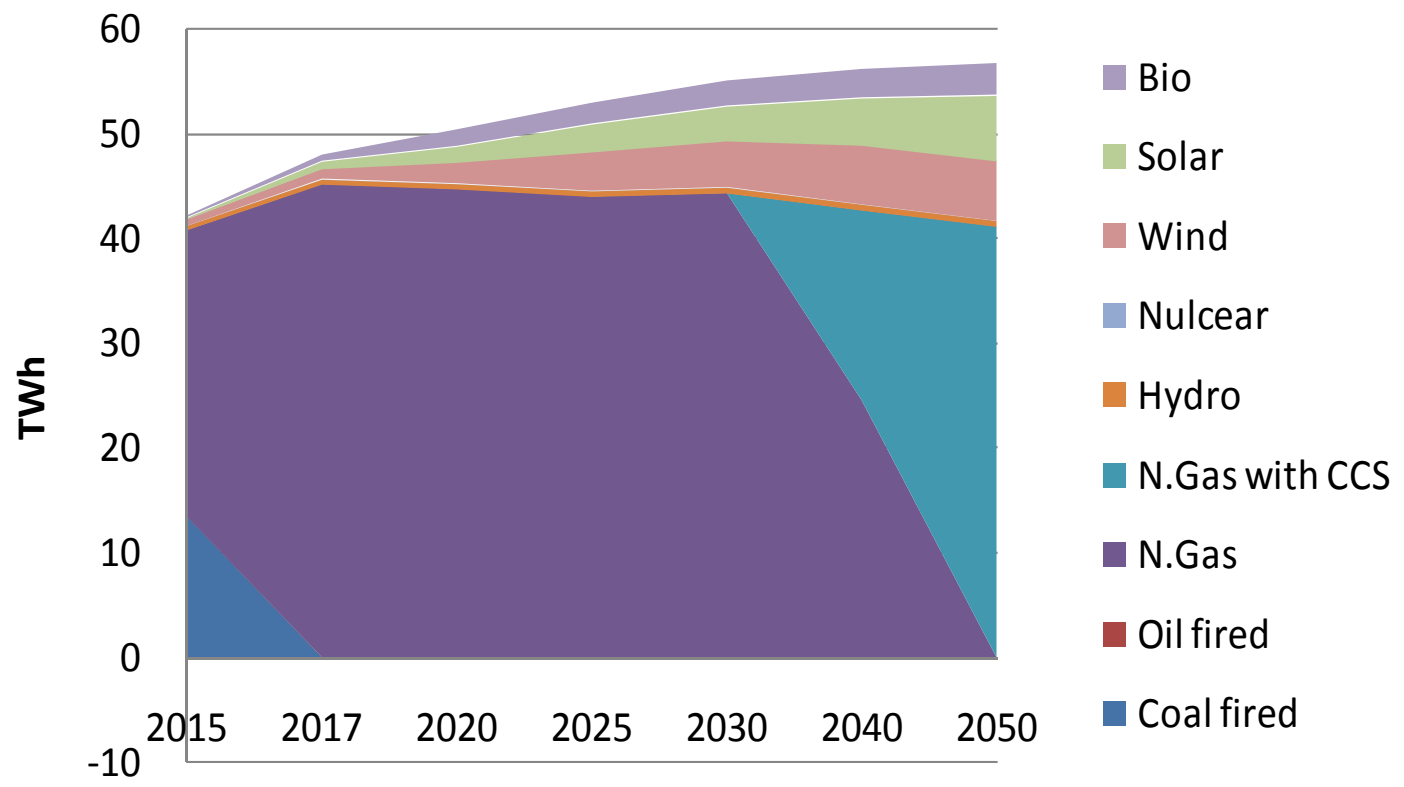
煤炭消费量



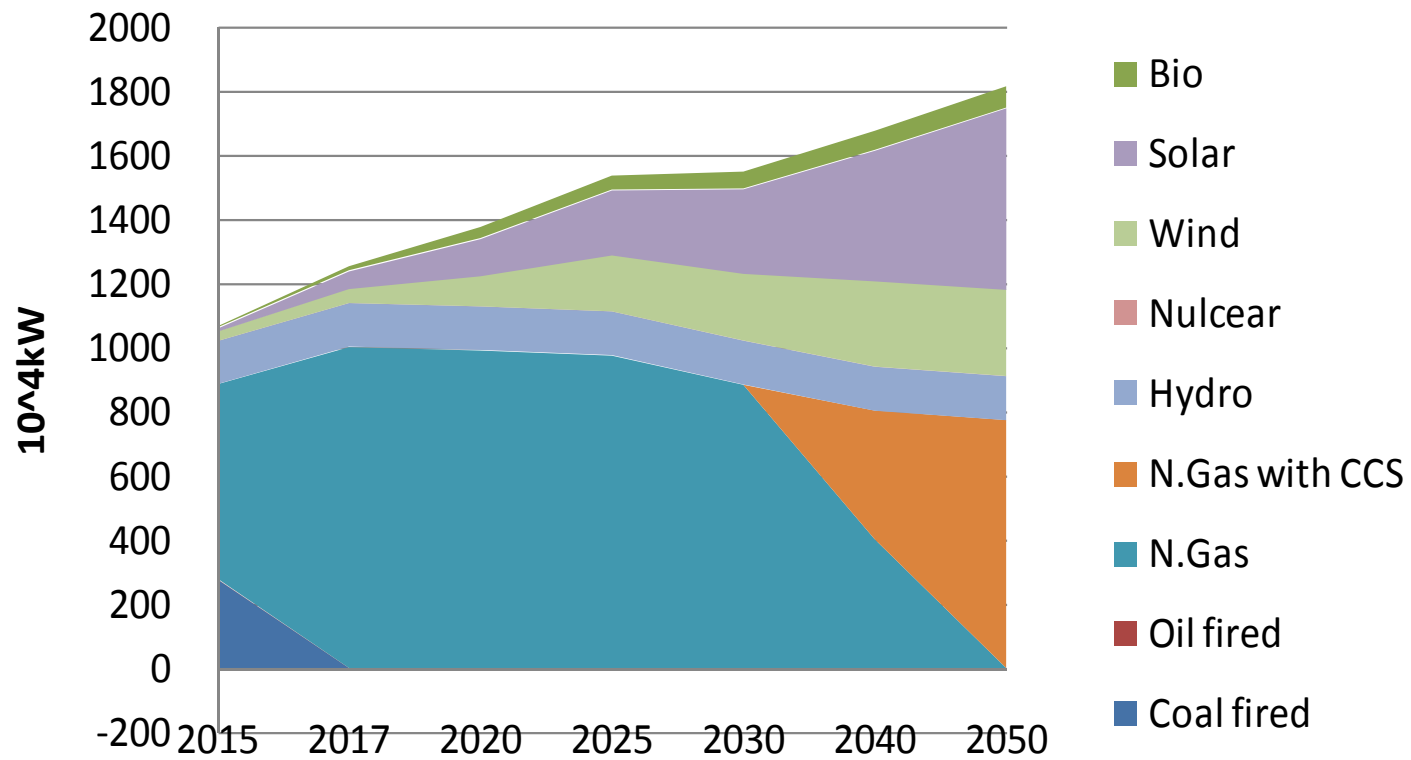
CO2 Emission in Beijing



Power generation in Beijing

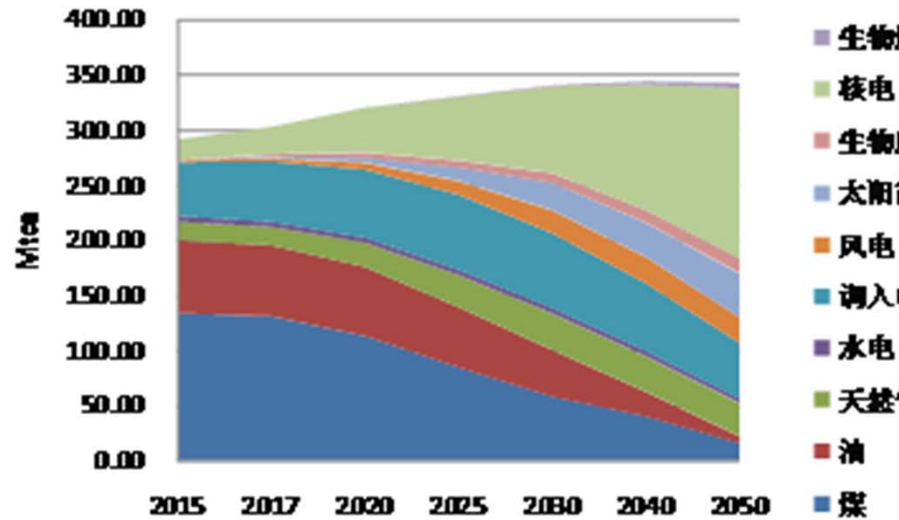


Installed Capacity in Beijing

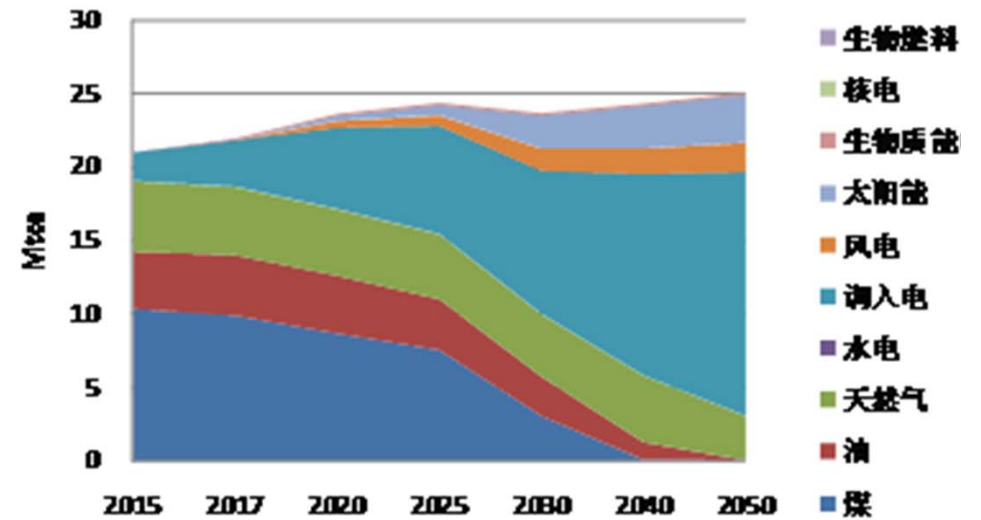


Primary Energy Demand in Guangdong, Hongkong and Marco

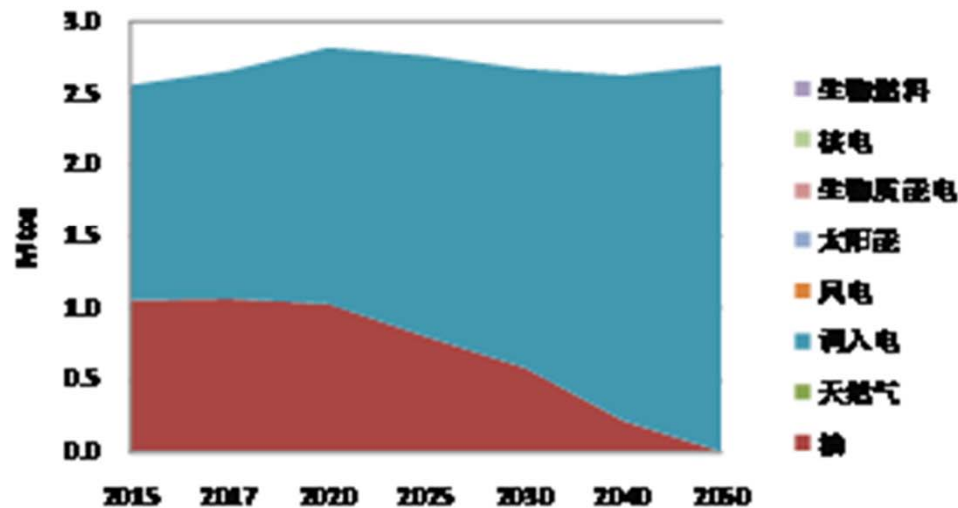
广东一次能源需求



香港一次能源需求

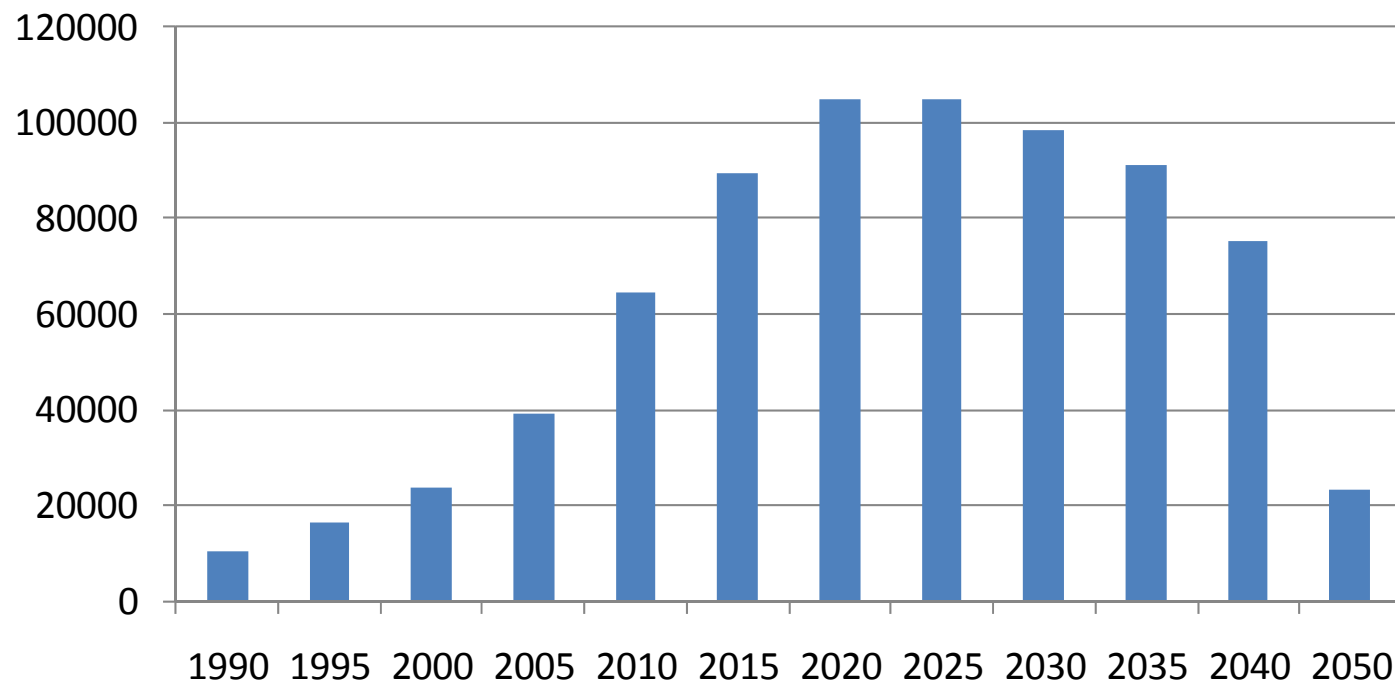


澳门一次能源需求

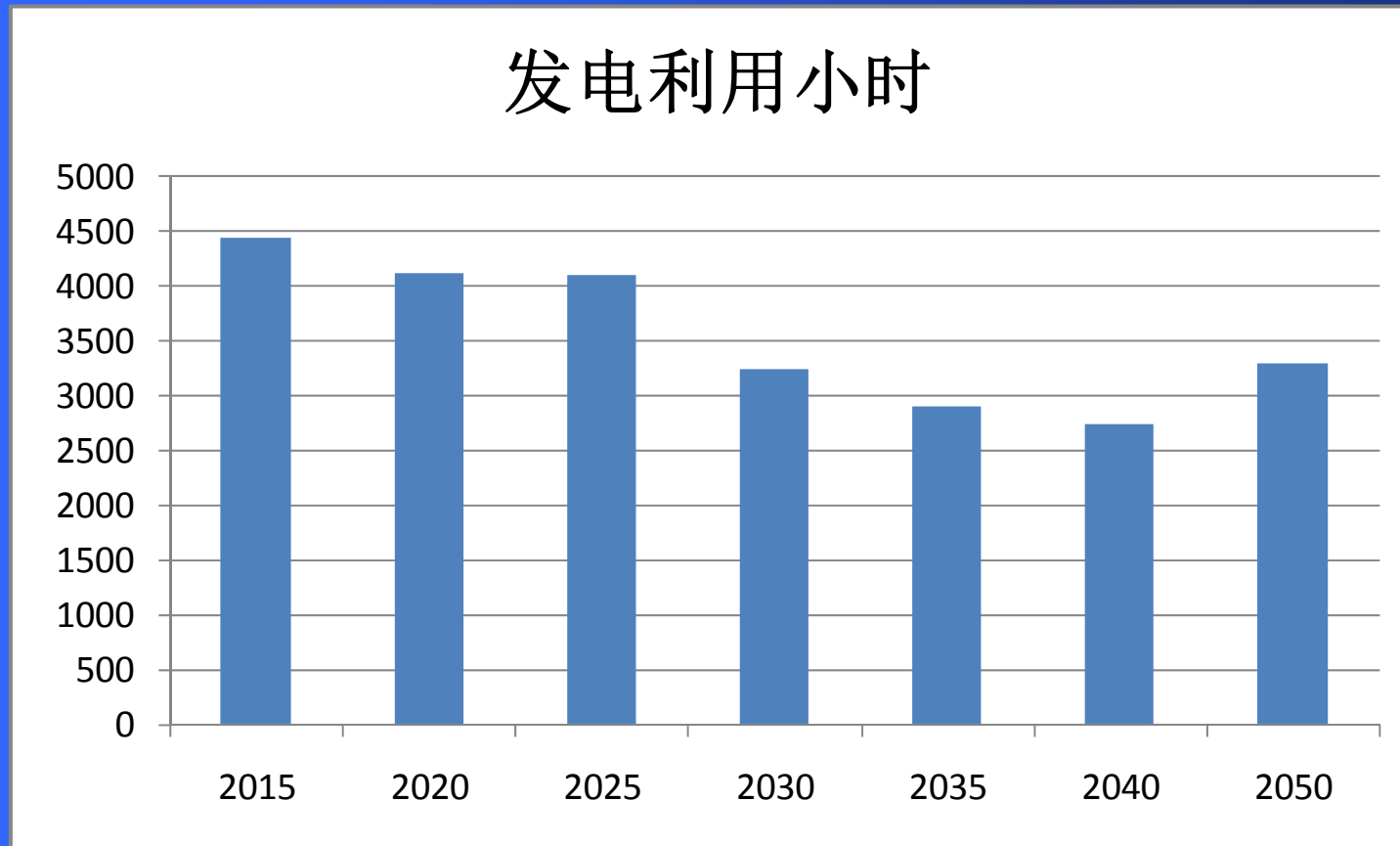


Installed capacity of coal fired power in China, 10MW

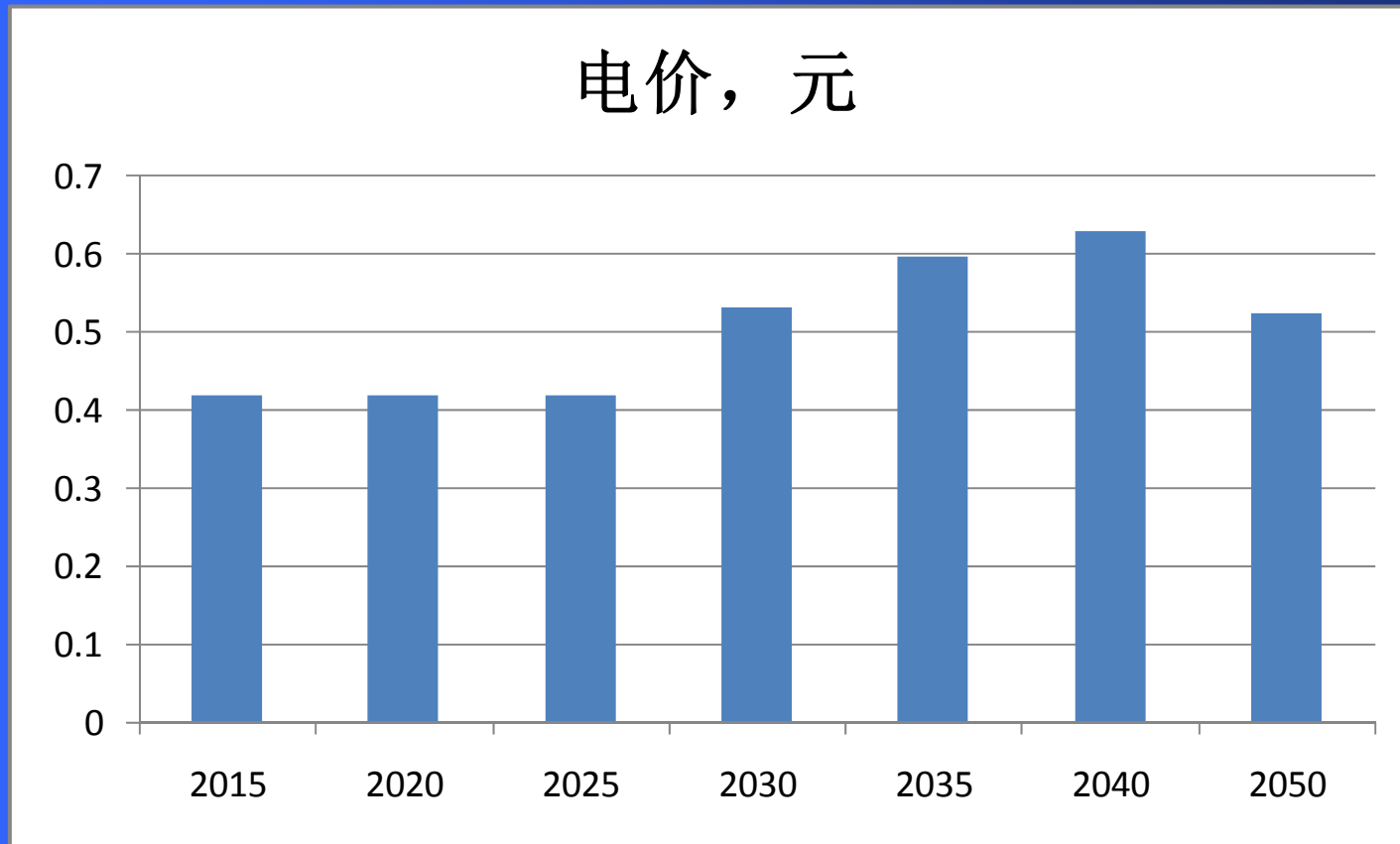
总装机容量，万千瓦



Utilization hours of coal fired power plants in China



Electricity price of coal fired power plants, yuan/kWh



Key policies

- No loser policies: focusing on negative impacted sectors
- Zero-emission cities development strategy
- Carbon neutral industries
- Policies for deep cut without carbon pricing

Next

- All pollutants emission from coal
- Cost analysis for coal, renewable energy, nuclear by including system cost
- Near zero emission for all in 1.5C pathways
- Coal phasing out in Asia countries, especially countries with Chinese export of coal technologies

China's IPCC report: Assessment of China's Climate Change and Eco-system, publish in 2021

- Focusing on 2 and 1.5 targets
- Modeling team are invited to submit scenarios for China: database available soon
- Papers are encouraged to be published focusing on China's scenario, papers from 2012 to 2019 will be included for review