

# Carbon Neutrality Reinforce Green Low Carbon Transition in China

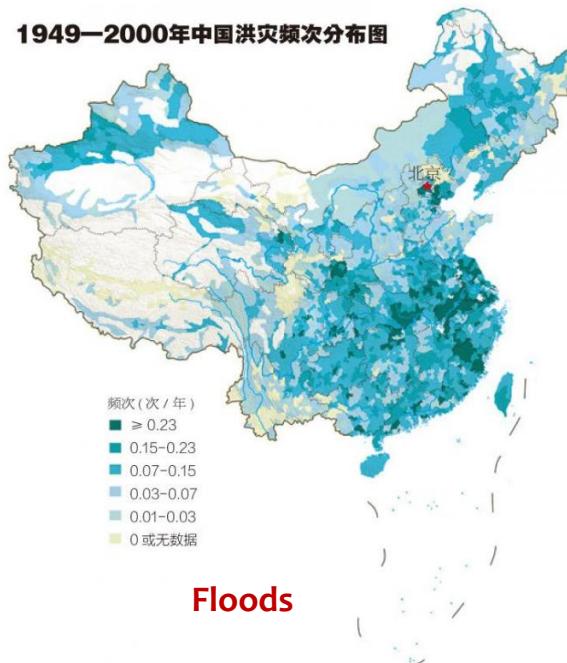
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Li Min  
IETA China Representative

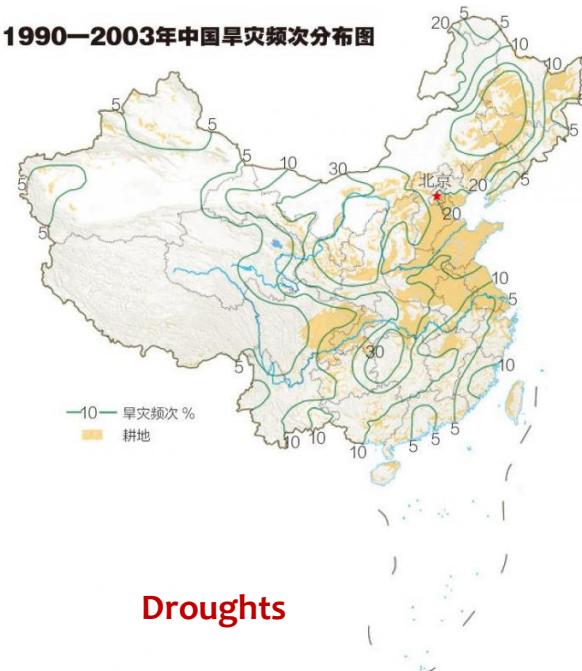


# Natural Disaster caused by climate change

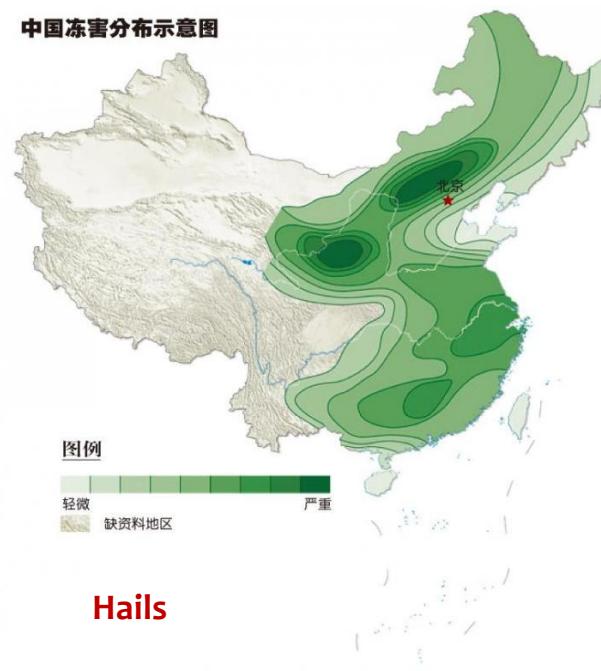
1949—2000年中国洪灾频次分布图



1990—2003年中国旱灾频次分布图



中国冻害分布示意图



From 1991 to 2018, direct economic losses caused by meteorological disasters amounted to **252.7 billion yuan** ( China Meteorological Administration )

# Peak Co2 Emission & Carbon Neutrality Goals

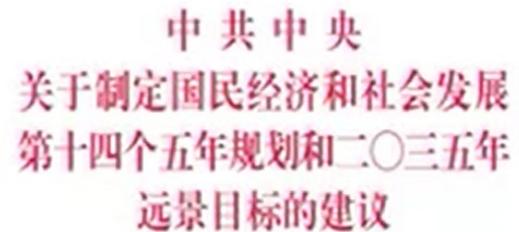


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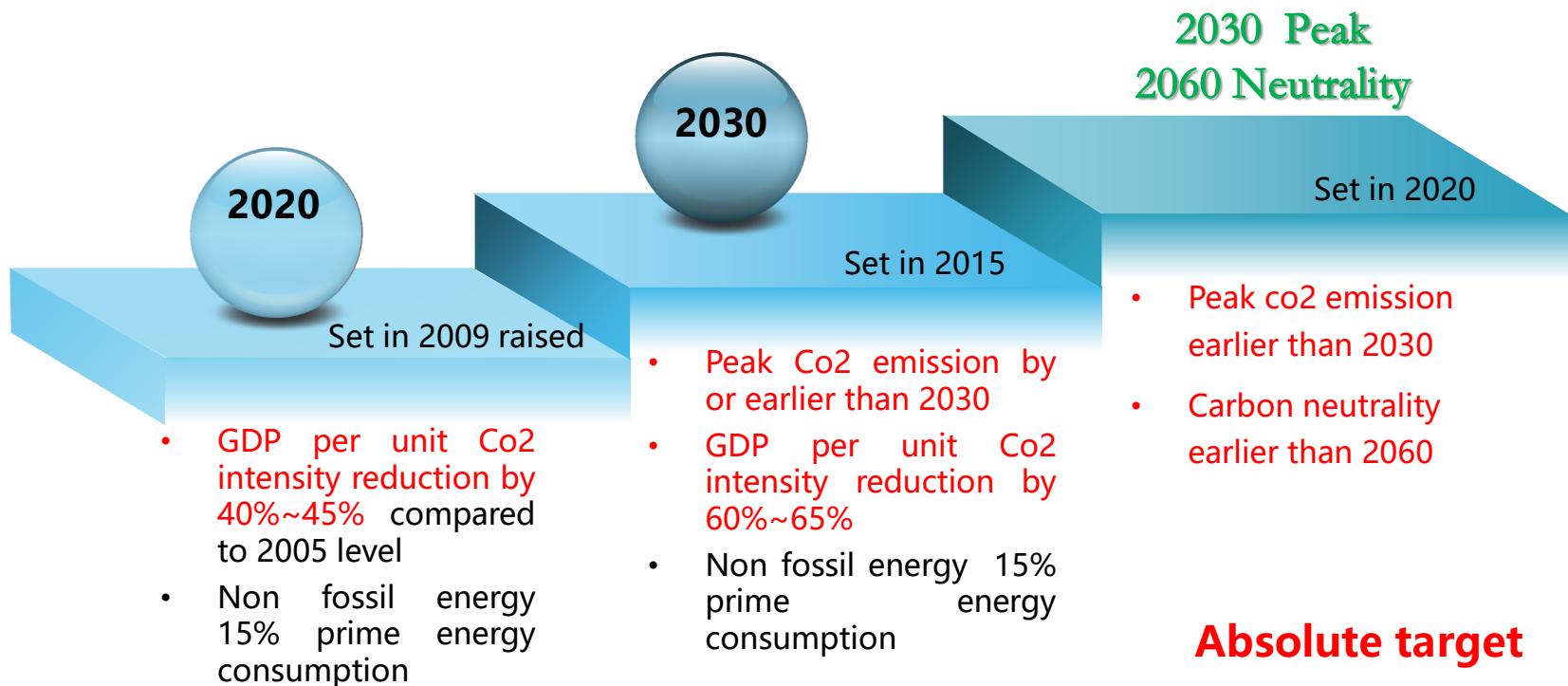
- Peak Co2 Emission earlier than 2030;
- Reach Carbon Neutrality earlier than 2060;
- Green recovery

# Highlight in 14<sup>th</sup> FYP & 2035 Outlook

- 第十四个五年规划建议：“…推动能源清洁低碳安全高效利用。发展绿色建筑。开展绿色生活创建活动。降低碳排放强度，**支持有条件的地方率先达到碳排放峰值，制定二〇三〇年前碳排放达峰行动方案。**…”
- 14<sup>th</sup> FYP support certain region with advantages to **peak co2 emission in earlier stage**, formulate action plan to peak co2 emission earlier than 2030
- Total & intensity of energy consumption
- Trading of carbon, pollutant permit, energy certificant, water, etc.
- 二〇三五年社会主义现代化远景目标：“…广泛形成绿色生产生活方式，**碳排放达峰后稳中有降**，生态环境根本好转，美丽中国建设目标基本实现；…”
- 2035 Outlook: Green production and life style, carbon emission is **steady with decline after peaking**



# Carbon Peak & Neutrality Vision



# Main Challenges

- Top in GHGs emission and shorter time to achieve carbon neutrality after peaking;
- Unbalanced Social & Economic Development and Industry Structure;
- Coal dominated Energy Structure;
- Faster transition of Energy and Economic structure and GHGs reduction in speed and scale

# Major Changes Needed

## 1. National Target

- Included into general national economic and social development plan
- Intensified reduction target set in 14<sup>th</sup> & 15<sup>th</sup> FYP

## 2. Industry Optimizing & Restructuring

Conventional: upgrade, smart, green

New impetus in emerging, service, digital economy

## 3. Transformation in Energy systems

Change the domination of coal

Increase renewables wind, solar, hydro 20% by 2020, 25% by 2030

<sup>7</sup>  
1.2 billion kw by end of 15<sup>th</sup> FYP 2030



## 5. Direct fund to low carbon

2020-2050, **100 trillion Yuan** needed for energy system restructuring; 30 **trillion Yuan** for energy supply to industries, construction, transportation, etc.

## 4. Technology Innovation

Tecology in decarbonizaiotn in energy, industry, transportaiton, etc.

Digitalizaiton, smarterlization

# Previous Achievements

- \* Policy Structure introduced in 13<sup>th</sup> FYP, GHG WP, 14<sup>th</sup> FYP;
- \* Action Plan of Peaking Carbon Emission Peak in Central and Provincial Level;
- \* Pilots in Low Carbon Development Cities and Net-Zero Emission Communities;
- \* Promotion and Action in the general public.

# Climate Actions/Commitment among Enterprises & Entities

## 中国石化

中国石化启动碳排放达峰和碳中和战略研究



2020.10.24

1



## 伊利

伊利率行业之先承诺实现碳中和，积极响应“中国2060年前实现碳中和”的国家目标

2020.12.8

2



2020.11.23

3



## 国家能源集团

抓紧制定2025年碳排放达峰行动方案



2020.12.20

4



2020.12.21

5



## 中国华能

勇担历史使命，抓紧制定公司碳排放达峰方案



2020.12.28

6



2020.12.28

## 国家电力投资集团

国家电力投资集团宣布到2023年将实现在国内的碳达峰



## 国家电网

国家电网有限公司召开专题会议研究“碳达峰、碳中和”行动方案

# Climate Actions/Commitment among Enterprises & Entities



# Climate Actions/Commitment among Enterprises & Entities

## 大唐集团

大唐集团2021年工作会议：提前5年（2025年）实现碳达峰

## 华电集团

集团正在抓紧制定碳达峰行动方案，有望2025年实现碳排放达峰。

## 通威集团

宣布全面启动碳中和规划，并计划于2023年前实现碳中和目标

2021.1.20



14



2021.1.21

15

2021.1.25



16



2021.1.28

2021.2.1

18



2021.2.3

19



## 中国宝武

2021年发布低碳冶金路线图，2023年力争实现碳达峰，2025年具备减碳30%工艺技术能力，2035年力争减碳30%，2050年力争实现碳中和

## 南方电网

加紧研究制定实施服务碳达峰、碳中和工作方案

## 比亚迪

比亚迪宣布启动企业碳中和规划研究，探索新能源汽车行业碳足迹标准，引领中国汽车行业迈入绿色发展新阶段

# Climate Actions/Commitment among Enterprises & Entities



阿里



百度



联想



滴滴



三峡集团

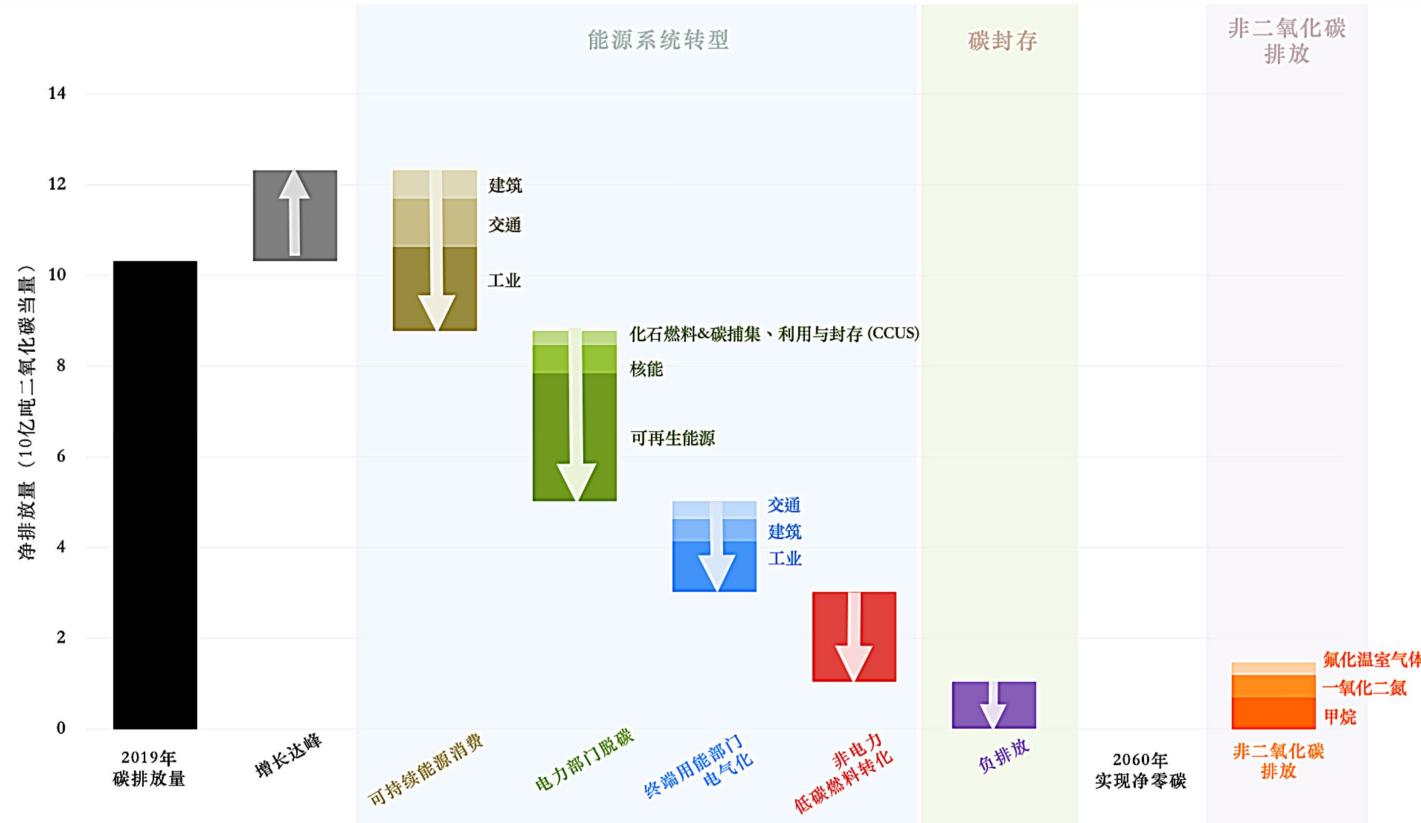


美团



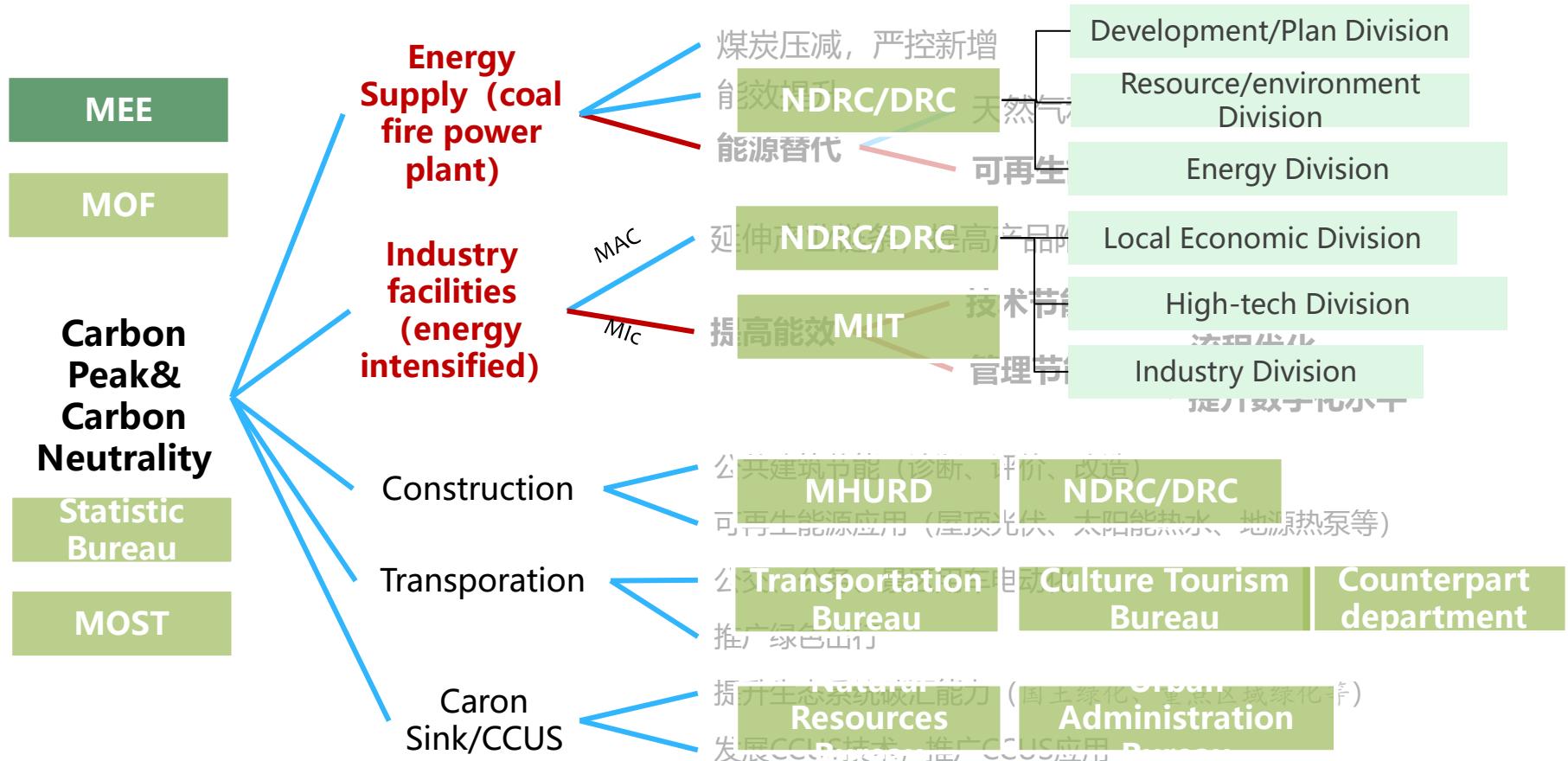
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# General Path towards Carbon Neutrality



- EE & RE
- Decarbonize in power generation
- Electrify in ender users
- Fuel Switch in electricity (industry process& transportation)
- Negative emission(Carbon sink& CCUS)

# Enforcement Structure/Task Assignment



# Funding from Climate/Green Finance

Institution

## Administrative Mechanism

Climate Finance (Green Finance) Task Force Leader Group & Steering Committee



## Policy Structure

Climate Finance (Green Finance)

Management Measures

Green Certificate/Assessment Standard

Guide of Climate/Environment Info Disclosure

Measures

## Financial Products

Green Bond  
Green Fund  
Environment Credit Trading  
(ETS, Energy Certificate,  
Pollutant permit, etc.)

## Main Participants

Green(Climate friendly) Industries  
Green(Climate friendly) Enterprises  
Green(Climate friendly) Programs

## Fund Source

Fiscal fund  
Social capital  
International capital/fund

## Finance Service Platform

# Many Thanks!

Li Min  
IETA China Representative  
[li@ieta.org](mailto:li@ieta.org)  
[www.ieta.org](http://www.ieta.org)

