



Introduction of CAE AND China's Energy Situation

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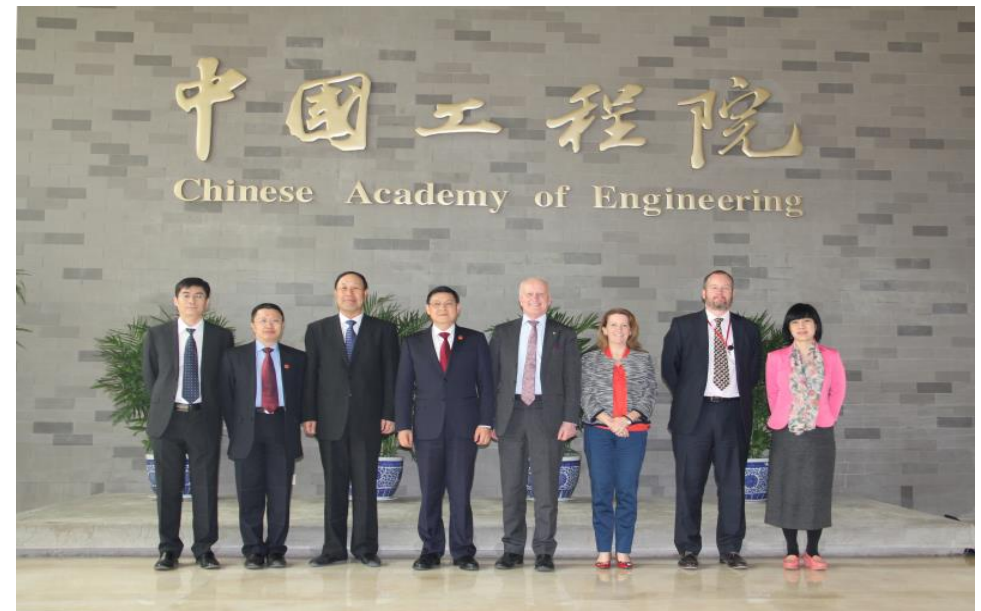
China's Energy Situation

CAE

- The Chinese Academy of Engineering (CAE) is the most distinguished, advisory academic institution in China's engineering science and technology (S&T) community. Since its founding in 1994, CAE has made dedicated efforts to lead the innovation and development of engineering S&T in China by pooling the most talented minds in this field.



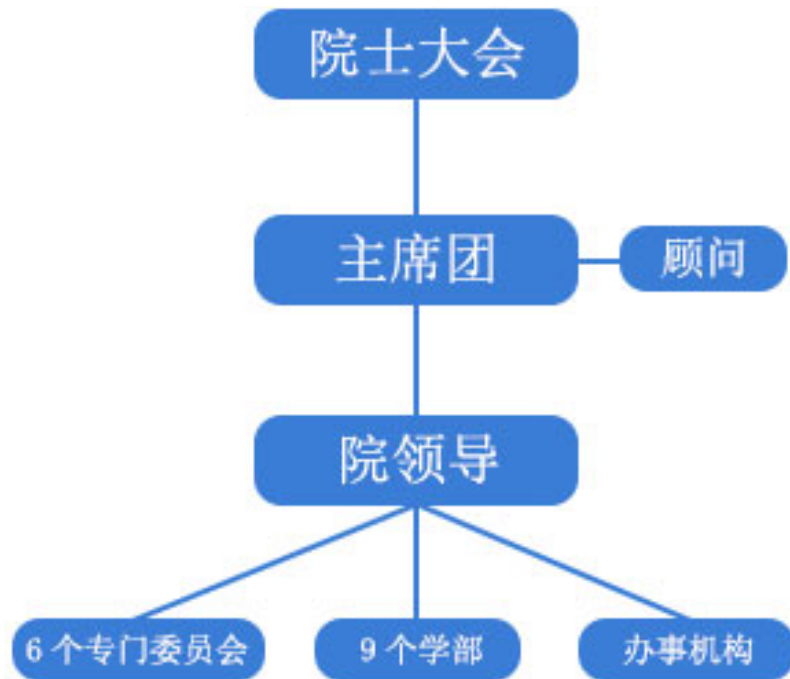
中国工程院 (CAE)



- **CAE member is the highest academic title set up by the state in the field of engineering S&T, representing the highest academic achievements and prestige from engineering professionals in China.**
- **The highest authority of CAE is the Member Assembly, which elects new members by voting every two years.**
- **The leadership of the Academy is elected by all members. The incumbent CAE President is **Li Xiaohong**.**

CAE

- Inside CAE, there are **857** members, with 65 foreigner members, **nine** academic divisions and **six** special committees, supported by a number of operational offices.



- Mechanical experts - 122 members
- Information and electronics experts - 124 members
- Material experts- 107 members
- Energy experts - 117 members
- Civil experts - 105 members
- Environmental experts - 55 members
- Agricultural experts- 77 members
- Medicine and health experts- 117 members

- CAE is a member of the Council of Academies of Engineering and Technological Sciences (CAETS) and hosted CAETS conferences in 2000 and 2014. In 2014, CAE hosted the International Conference on Engineering Science and Technology, with 1500 attendees from more than 30 countries, at which Chinese President Xi Jinping delivered a keynote speech.



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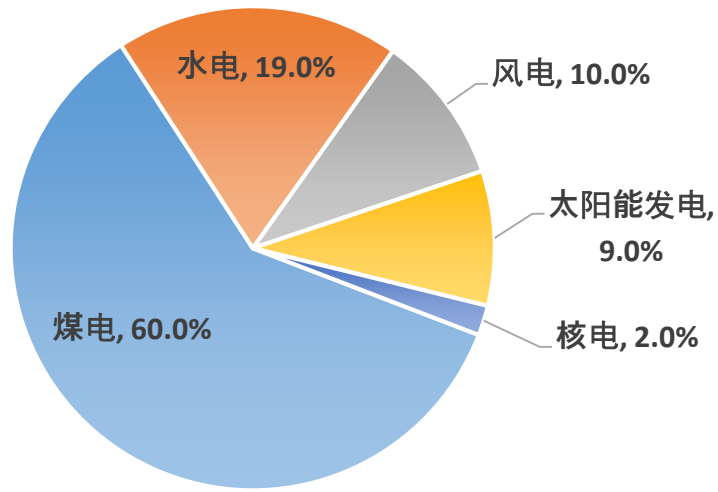
China's Energy Situation

Power generation installation

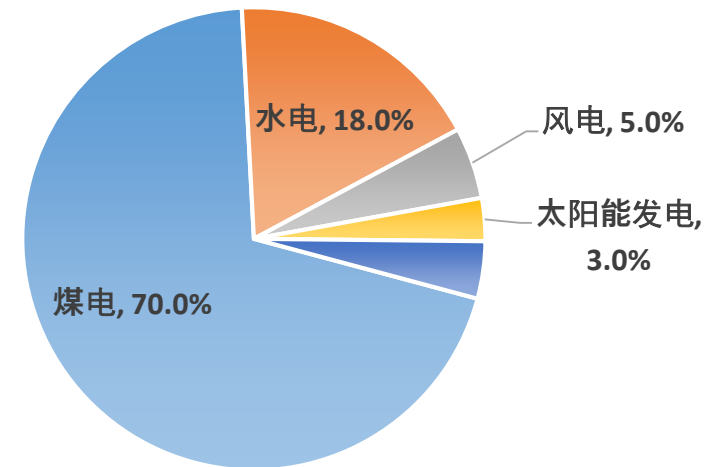
- **The power generation installed capacity in our country ranks first in the world, and hydropower, thermal power, wind power and solar power generation also have the largest installed capacities in the world.**
- **In terms of types, hydropower installed capacity is 350 million kilowatts, thermal power is 1.14 billion kilowatts, nuclear power is 44.66 million kilowatts, grid-connected wind power is 180 million kilowatts, and grid-connected solar power is 170 million kilowatts.**

Generation capacity

- In 2018, the national full-caliber power generation capacity was 6.99 trillion kWh, an increase of 8.4% year-on-year.
- The hydropower generation capacity was 1.23 trillion kWh, a year-on-year increase of 3.2%, and the thermal power generation capacity was 4.92 trillion kWh, a year-on-year increase of 7.3%.



China Power Supply Structure in 2018



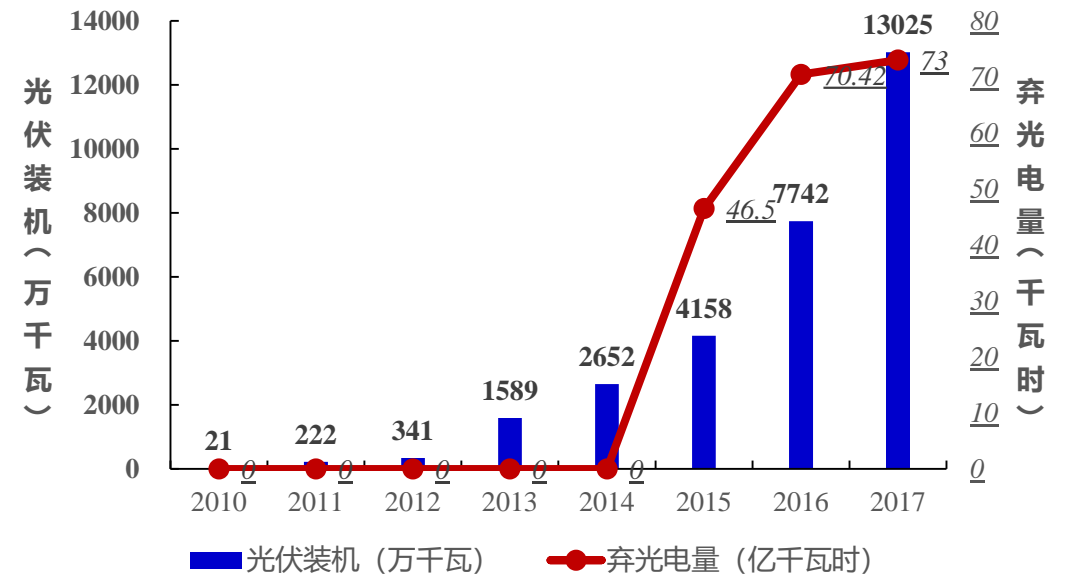
China's Power Generation Composition in 2018

The abandoned wind power and photovoltaic power

- In 2018, the national abandoned wind power was 27.7 billion kWh, and the average abandonment rate was 7%, which is about 5 percentage decrease year-on-year. The national abandoned photovoltaic power generation was 5.49 billion kWh, and the average abandonment rate was 3%, 2.8 percentage points decrease year-on-year.



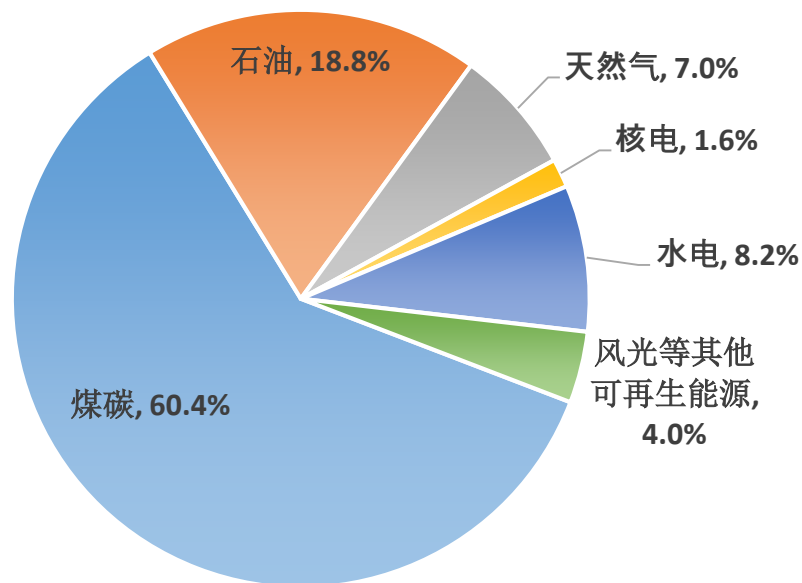
Wind Power Installation and Abandoned Wind Power in Recent Years



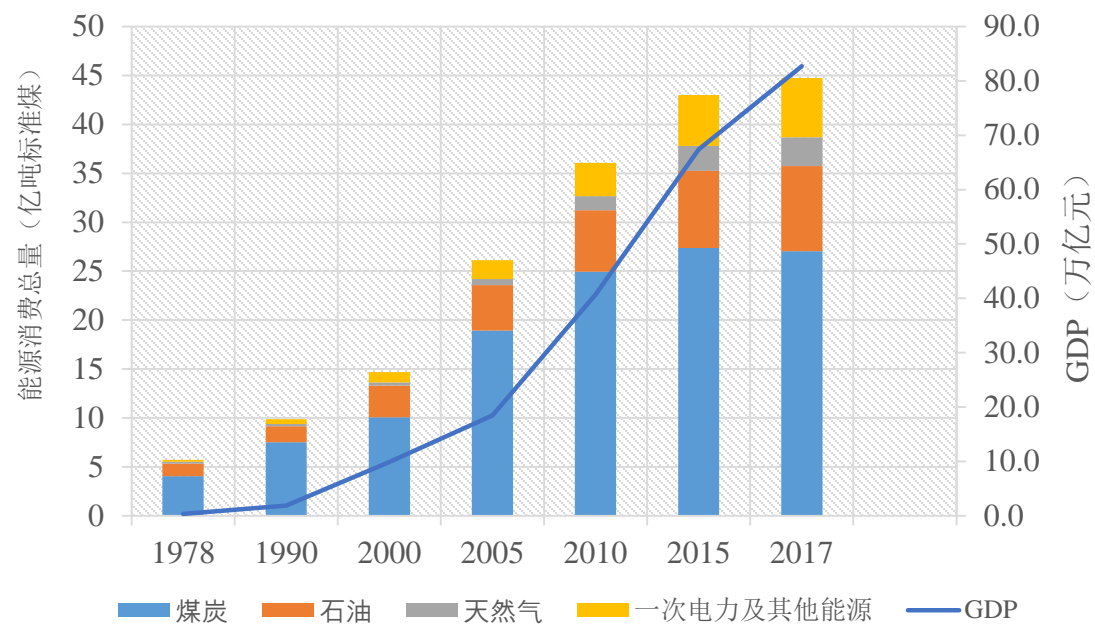
Photovoltaic Installation and Abandoned Photovoltaic Quantity in Recent Years

Current Situation of Energy Consumption

- In terms of energy consumption, in 2017, China's total primary energy consumption was 4.49 billion tons of standard coal, an increase of 2.9% year-on-year, and the national energy consumption structure continued to be optimized.



China's Energy Consumption Structure in 2017



Changes in GDP and primary energy consumption from 1978 to 2017

Electric Vehicle

- In 2018, the number of new energy vehicles in the country reached 2.61 million, accounting for 1.09% of the total number of automobiles. The increasement is 1.07 million units than 2017 with the increase proportion 70%.
- According to statistics, the number of new energy vehicles in the past five years has increased by an average of 500,000 units per year.



All taxis in Taiyuan have been converted to electric Vehicle.



THANK YOU!



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