



CHINA ENERGY SCENE 2008

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- Overview
 - Discussion of some of the challenges

Energy

- Includes

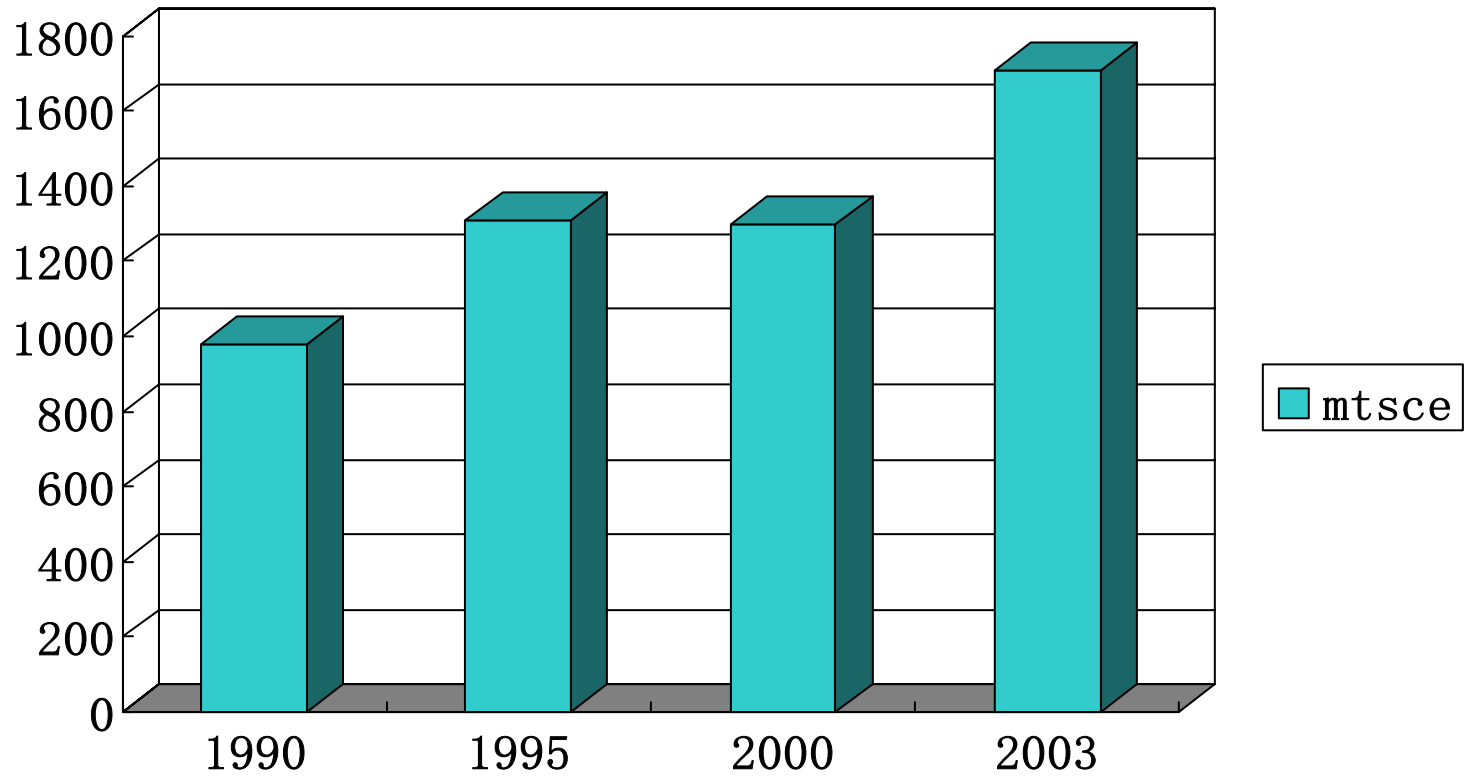
- Coal
- Oil
- Gas
- Hydro
- Nuclear
- Other

- Used for

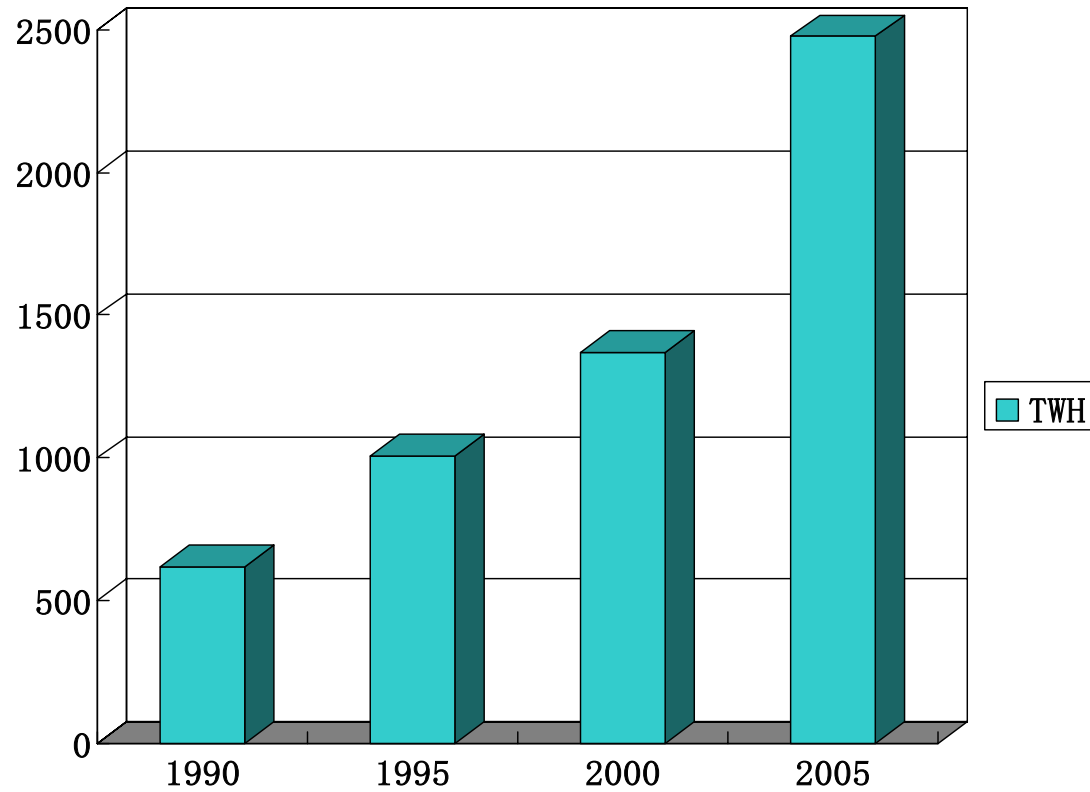
- Electricity
- Industry
- Transportation
- Domestic

And coal, oil and gas are used as feedstock

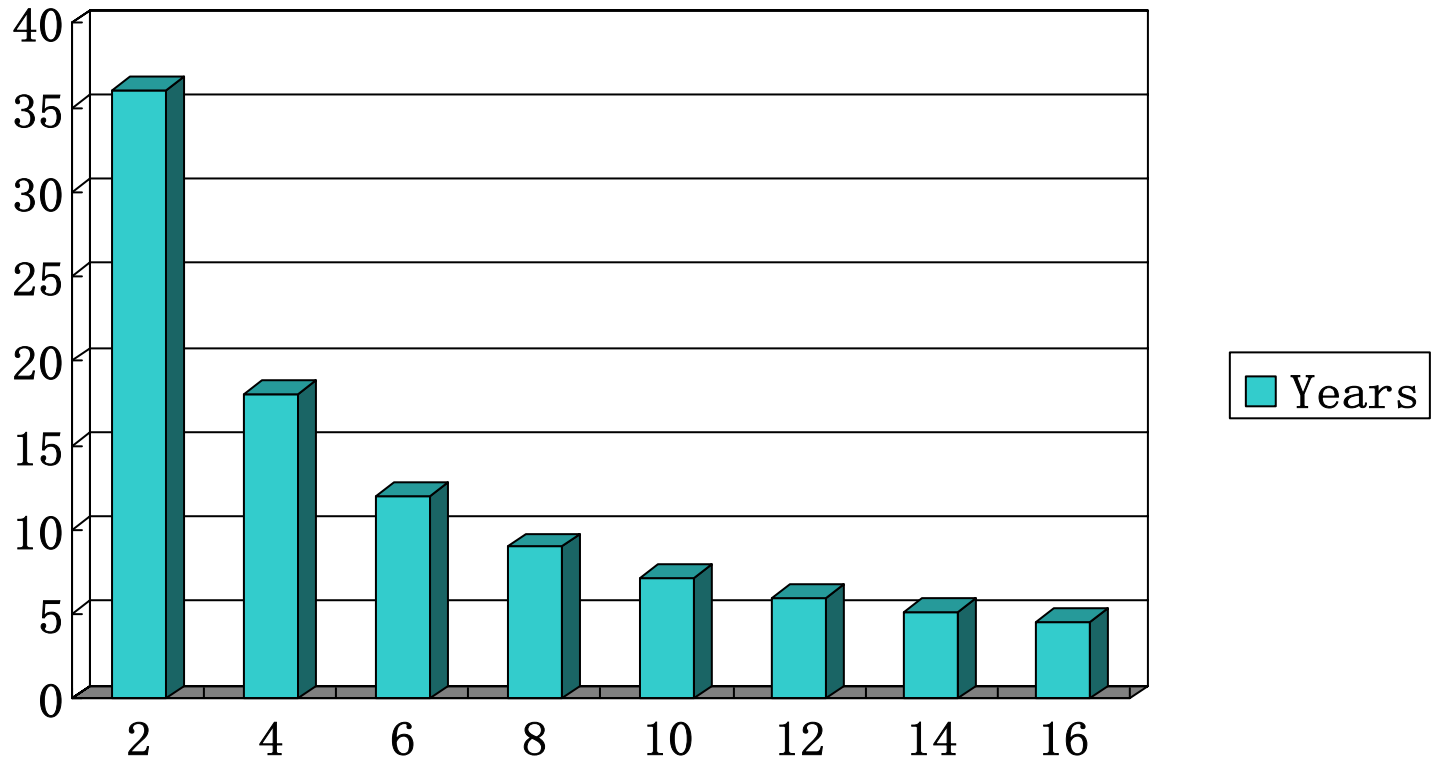
Total energy consumption



Electricity generation



Exponential Growth – time to double



Comparisons

- China

- $2,860 \times 10^9$ kwh

- 7×10^6 bopd

- 3.6×10^6 bopd produced

- 55×10^9 cum/day

- UK

- 349×10^9 kwh

- 1.86×10^6 bopd

- 1.08×10^6 bopd produced

- 91×10^9 cum/day

Comparisons

- China

- 1.3 billion

- 52 q BTU

- 36 BTU/\$

- $40 \cdot 10^6$ BTU/person

- EU

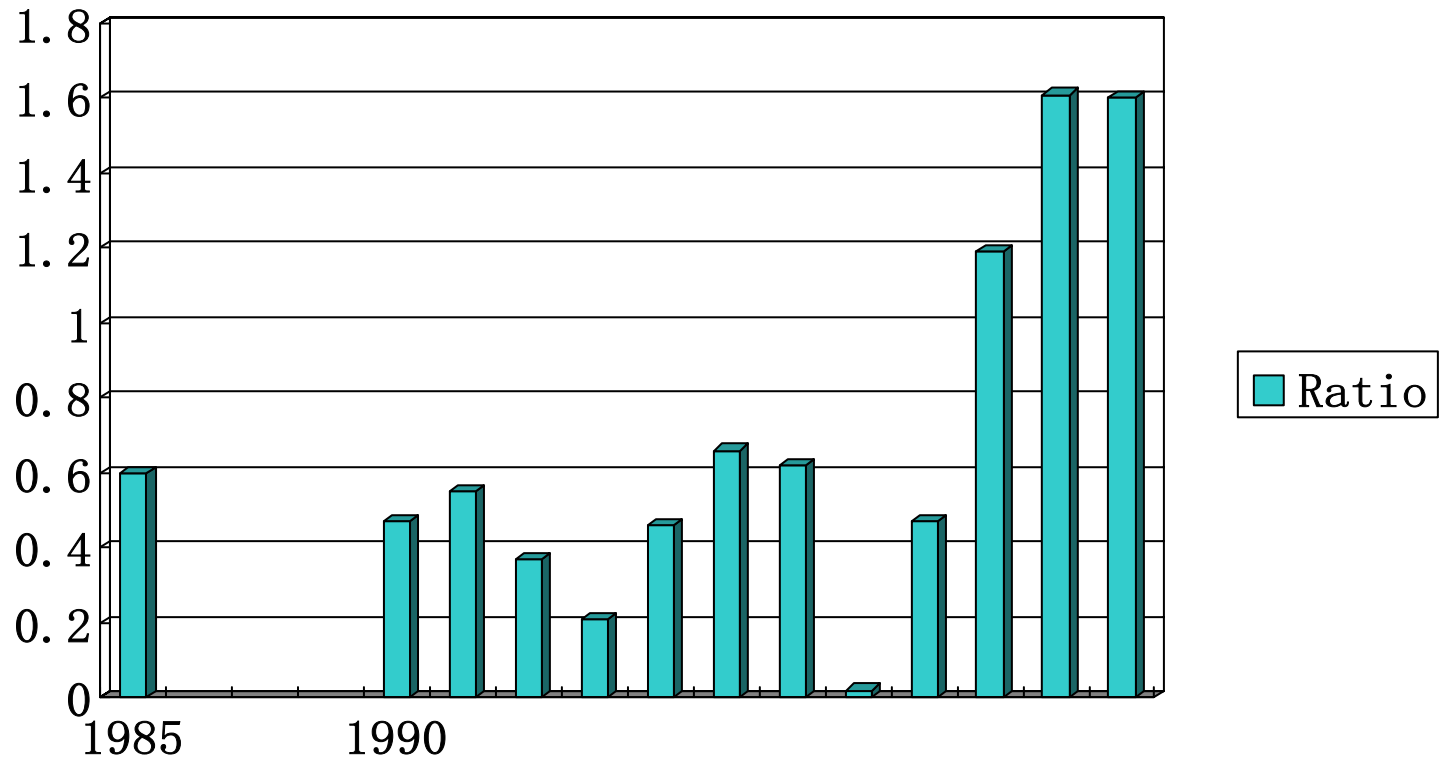
- 306 million

- 50 q BTU

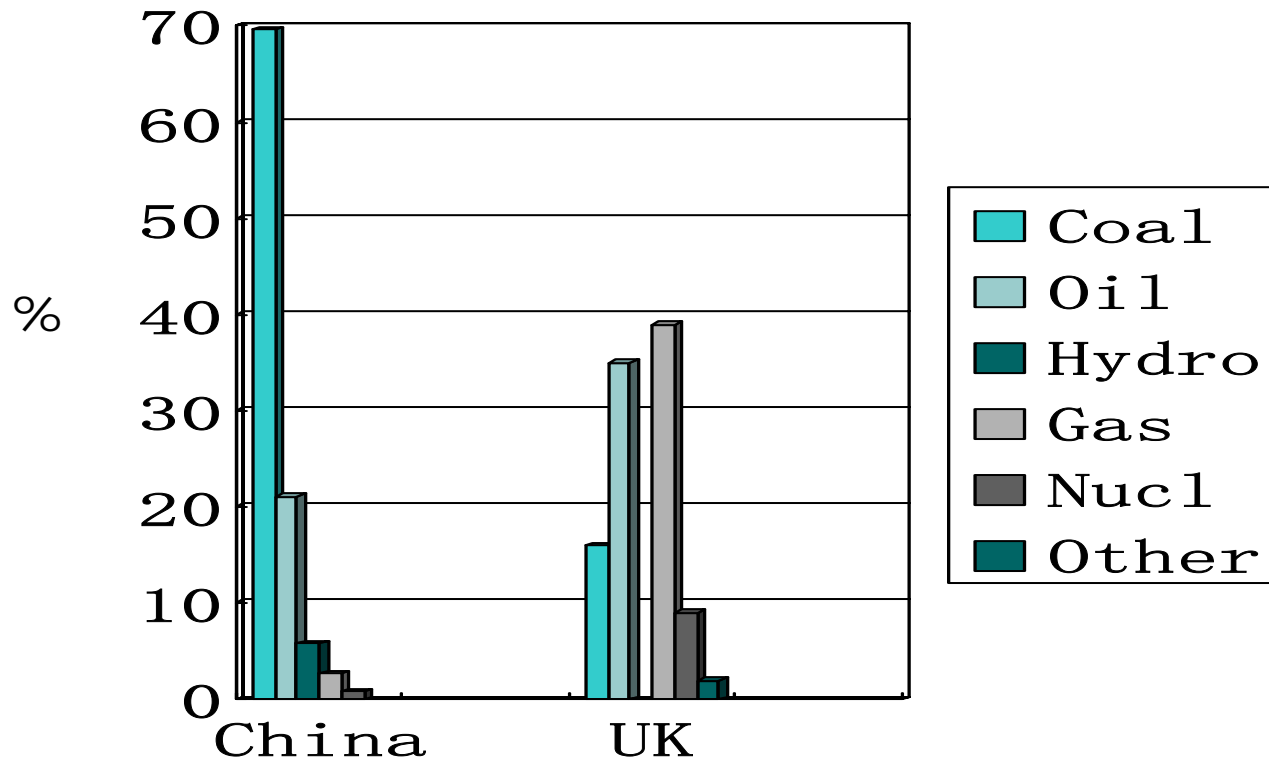
- 7 BTU/\$

- $164 \cdot 10^6$
BTU/person

Elasticity – Energy Consumption



Energy Mix





Challenges

- Coal
- Hydro
- Oil
- Gas
- Nuclear
- Renewables

Coal

- R/P 50+
 - 114 x10⁹ tonnes proven
- Location - transportation
- Pollution
- Safety



Hydro

- Resource
- Time
- Impact

Oil

- Reserves
 - R / P 12
- Security of supply
- Import and transportation
- Price



Gas

- Imports – pipeline / LNG
- Price
- Internal transmission



Nuclear

- Time
- Fuel
- Cooling
- Disposal



Renewables

- Wind
- Biological
- Tide
- Photovoltaics



Policy Challenges

Multi-dimensional

Entrenched self-interest groups

The market – help or hindrance?