

# Energy Efficiency for Energy Security: with a focus on China

International Cooperation on Energy Efficiency:  
working together for a low carbon economy  
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# Energy Security

- In times of war, sufficient energy for military maneuver
  - The very bare-bone core of the concept
  - Not a problem for China, a producer of coal & oil
- Security of supply
  - Experience of embargo and blockade
  - Low likelihood of future blockade
  - Energy independence not an option

# Energy Security

- Protection of the environment
  - SO<sub>2</sub> a more tangible problem than CO<sub>2</sub>
  - Diversification of energy mix: limited potential
- Low cost energy for households and industries
  - A necessary evil?
  - Lesson to draw from liberalizing food prices?
- Market-based energy pricing
  - Waiting for the right timing?
  - Leading to widening of growth gaps?

# China's record in energy efficiency

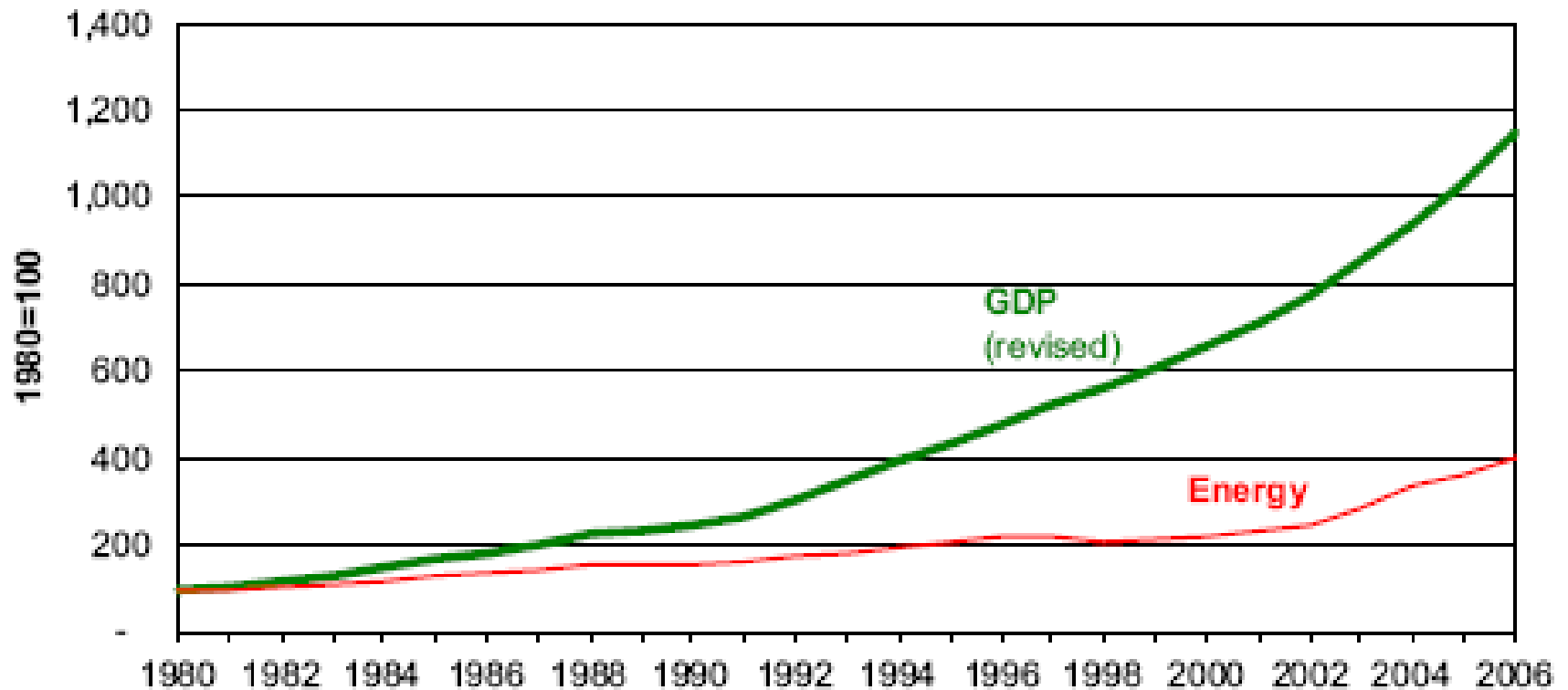


Fig. 1. Energy consumption and GDP growth in China, 1980–2000.

# China's record

- Standard line of observation
  - Between 1980 and 2000, GDP quadrupled; while energy consumption only doubled
  - Energy conservation projects and institutions across the country, with international participation
  - From 2000 to 2007, growth of energy consumption on par with that of GDP
    - Latest gov't statistics: 2.65 Btce (3.27% down from 2006)

# Energy Efficiency

- Declared target: reduce energy intensity of GDP by 20% from 2005-2010
  - Annual reduction of over 1.5 billion tons of CO<sub>2</sub> by 2010
- One praise-worthy policy: adjusting export tax rebate, since Oct. 2006
  - Targeting high energy-consuming, resource-intensive and environmentally-harmful products

# International Cooperation

- For most of the 1980s, international energy cooperation with China focused on efficiency
  - Japan, the U.S., the EEC
- New issues complicating interactions
  - IPR in technology trade more prominent
  - Changes in government-energy industry relations
    - Consumer activism weak in a society of scarcity

# International cooperation

- Basic rationale
  - Energy saved in China equals increase in global supply
- Recommended areas of action
  - Energy auditing: make it an industry
  - Solar power: support its spread throughout China
  - Schemes to reward imports of energy saving products from China
  - *Priority to projects & demonstration effect*