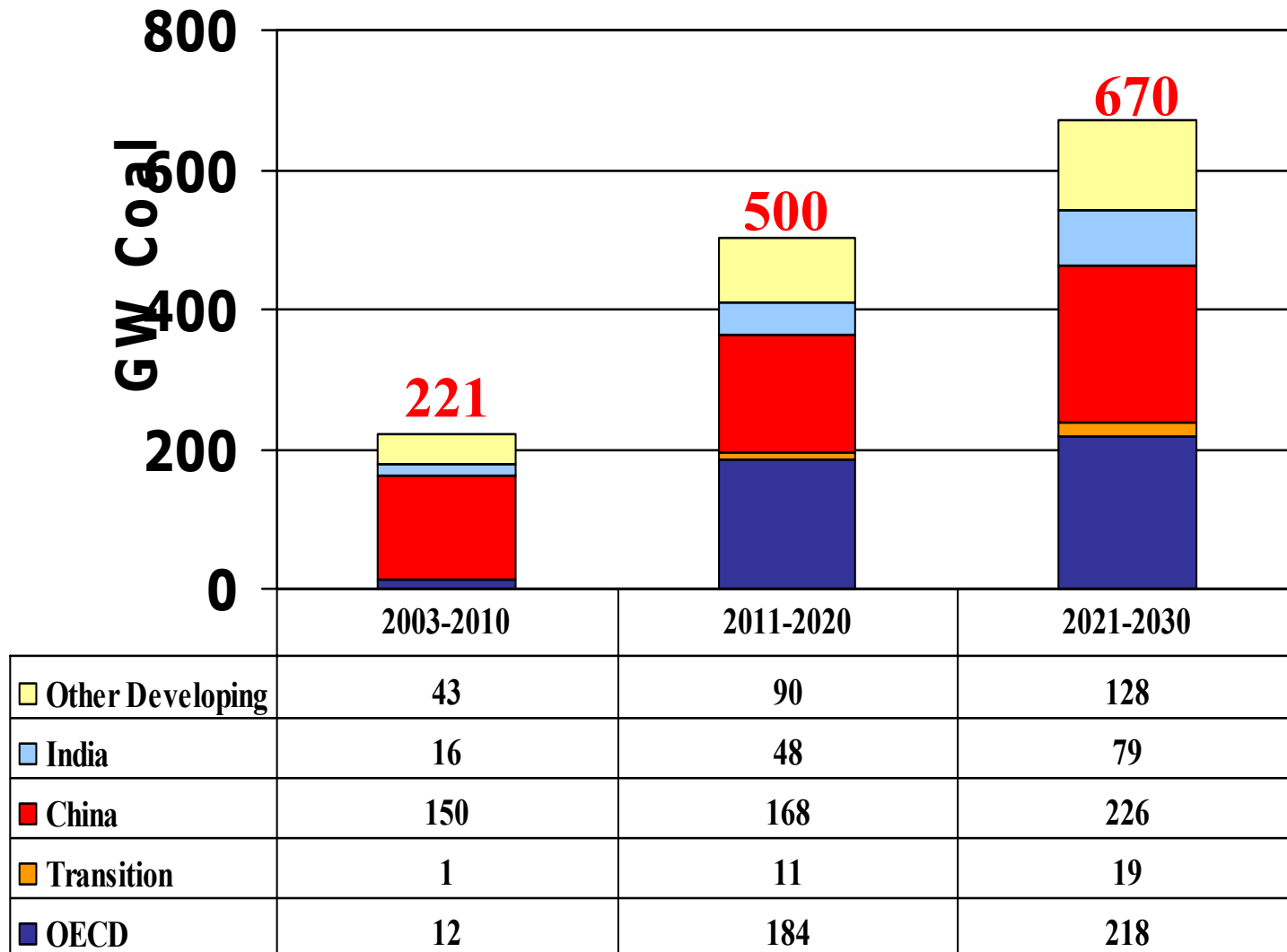


Coal and Climate: Hitting the Wall

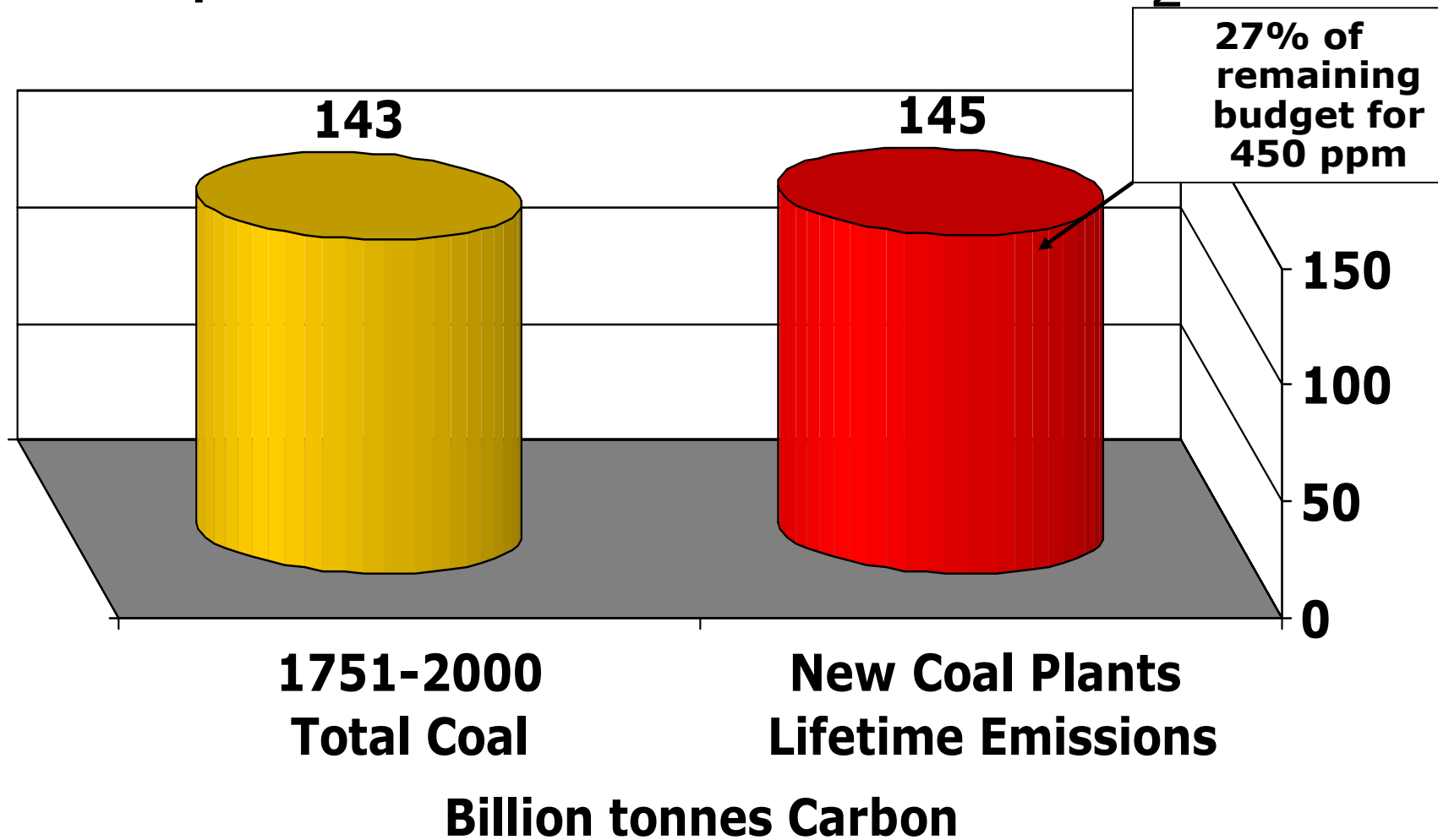


New Coal Build by Decade

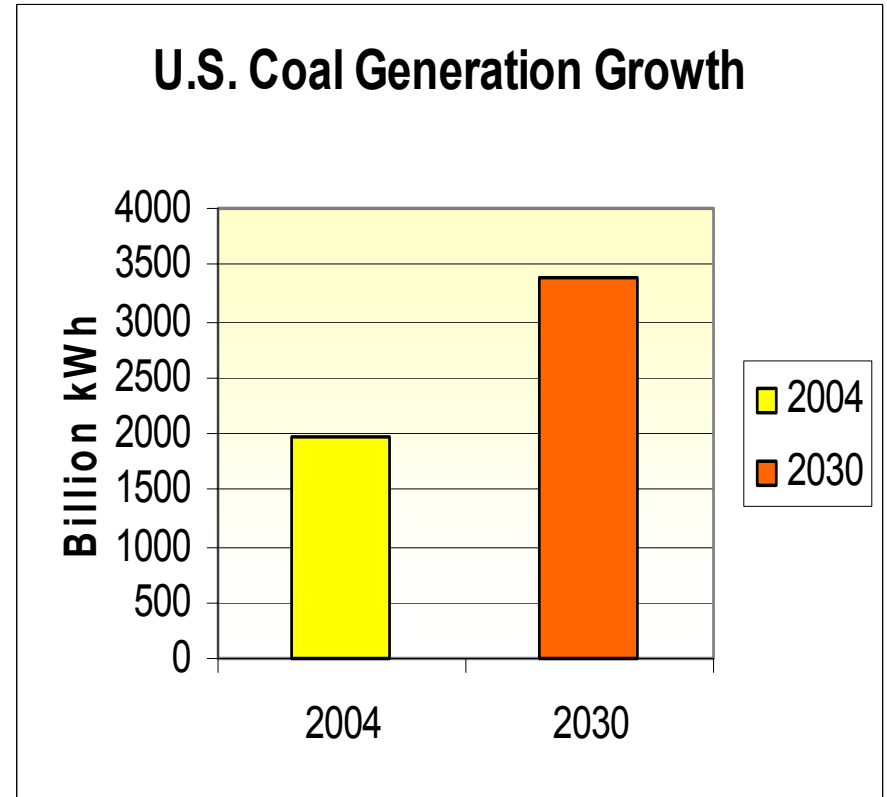
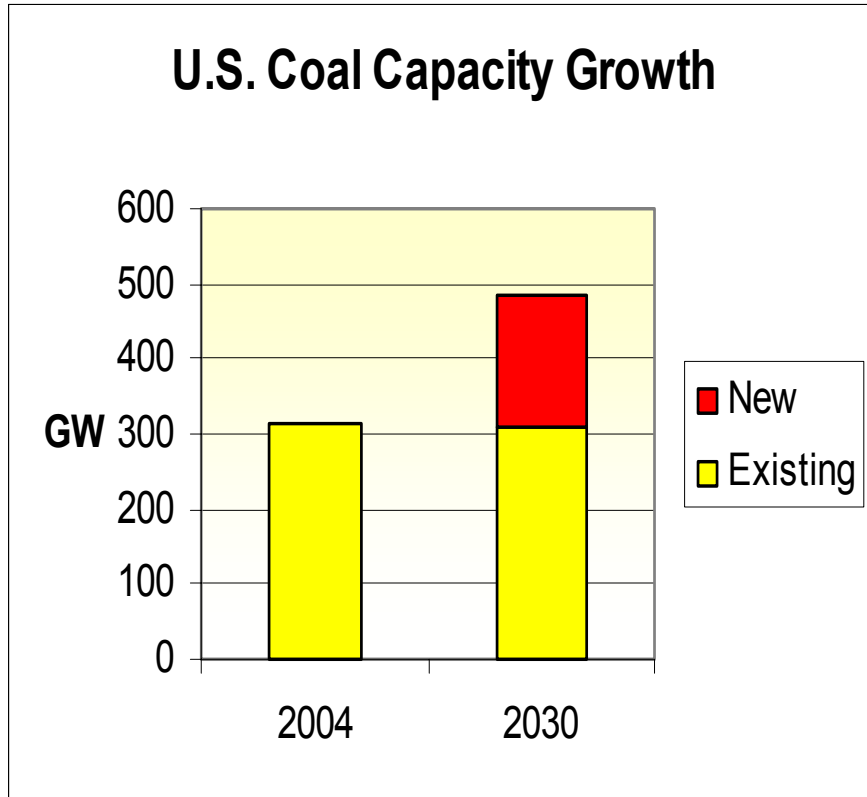


Incremental new coal capacity by decade

New Coal Plant Emissions Equal All Historic Coal CO₂

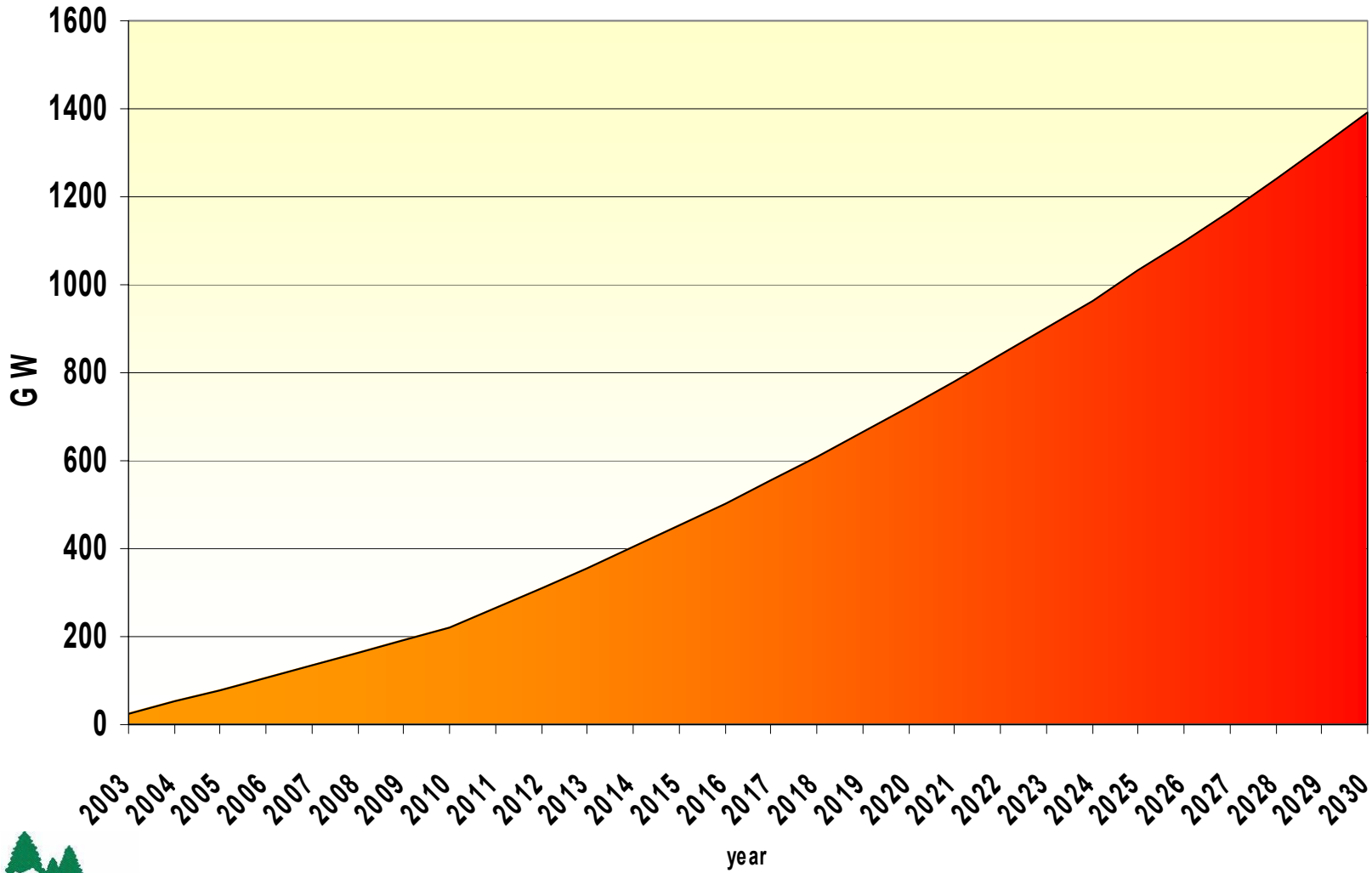


U.S. Coal Power Skyrockets



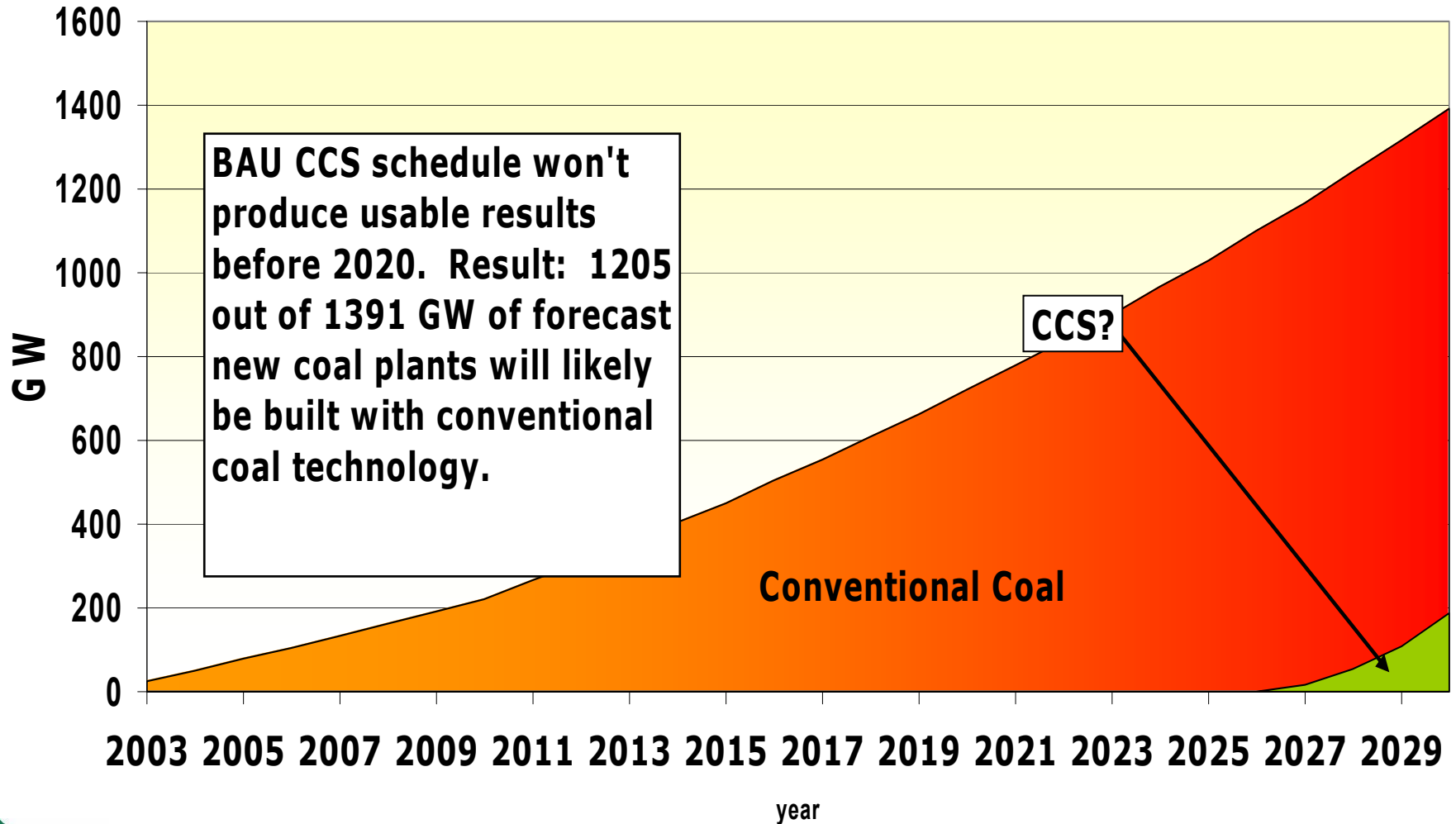
BAU Means Carbon Lock-In

IEA New Coal Forecast



BAU Means Carbon Lock-In

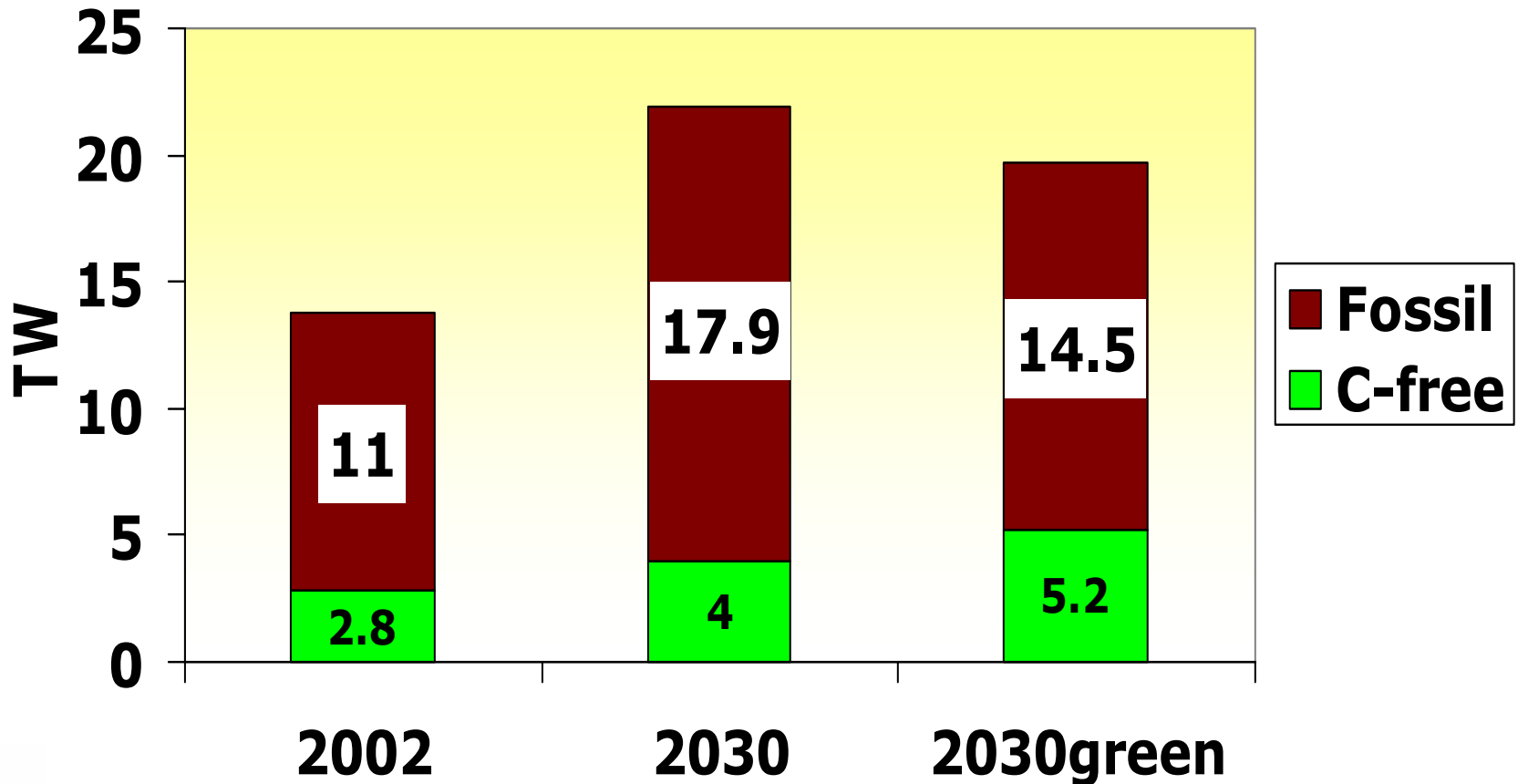
IEA New Coal Forecast



■ New Coal--BAU ■ CCS Coal--BAU

Fossil is Pulling Ahead

Primary Power-TW (WEO2004)



Crude Oil Substitutes

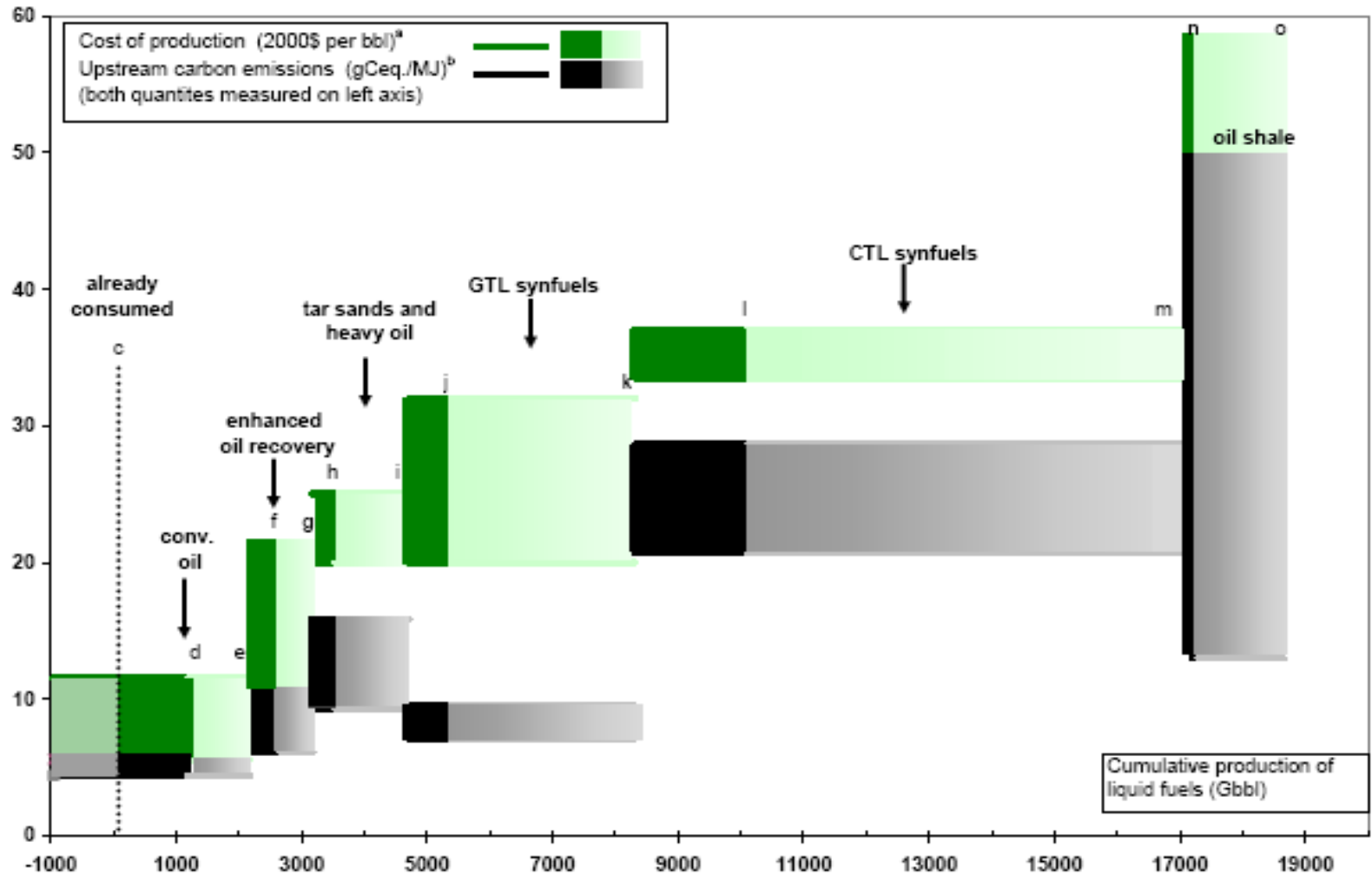
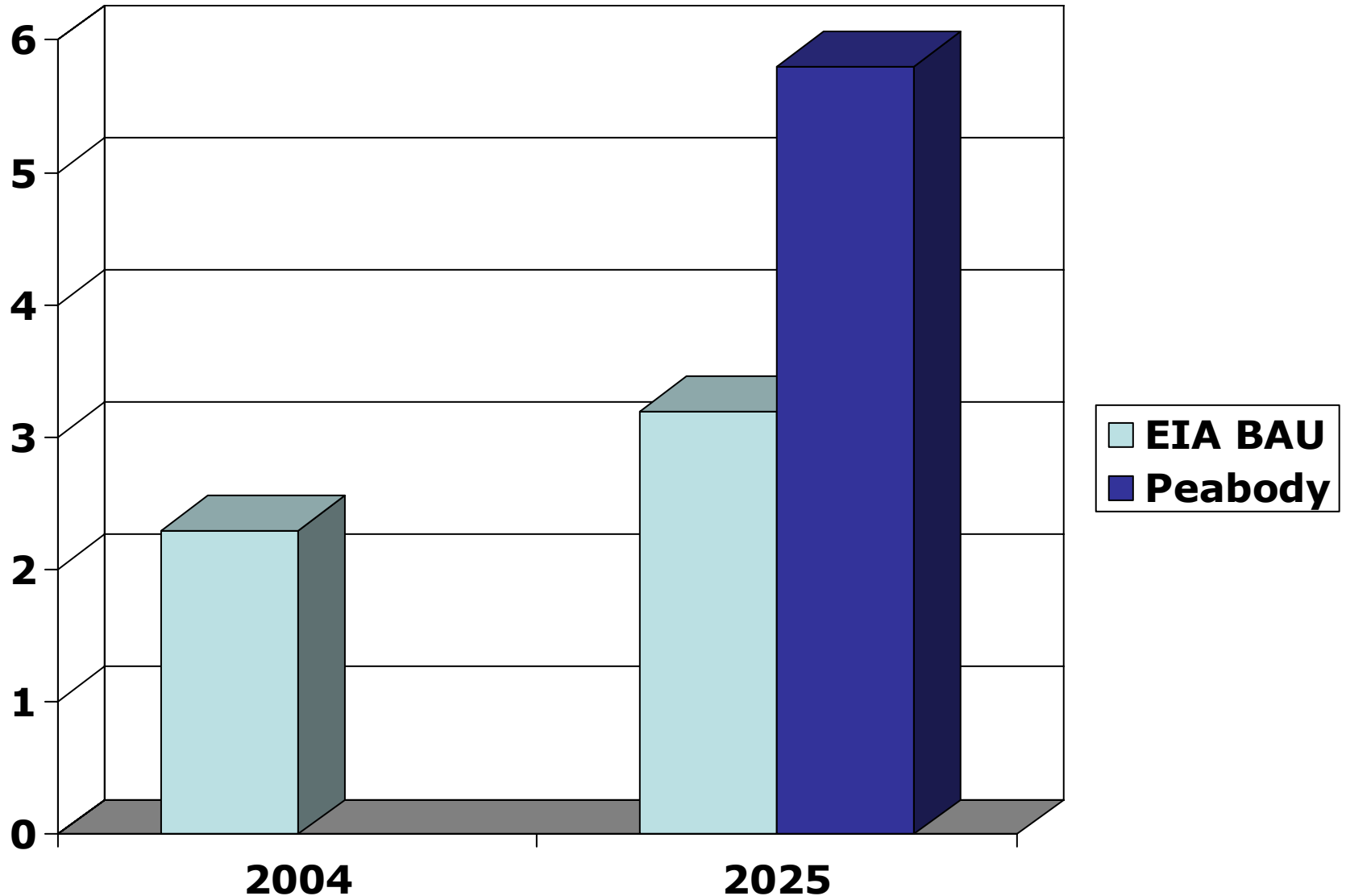


Figure 2 – Available supply of liquid hydrocarbons at given monetary and carbon costs. Note that lightly shaded portions of the graph represent less certain resources, so a more conservative estimate is available by counting only the dark portions of each resource category.

Peabody (NCC) Report

- Add 1.3 billion tons of US coal consumption (beyond BAU growth) by 2025 (current is 1.1 billion)
- Produce additional—
 - 4 tcf gas
 - 2.6 mm bbls/day liquids
 - 100 GW additional coal power
 - 3.6 tcf hydrogen

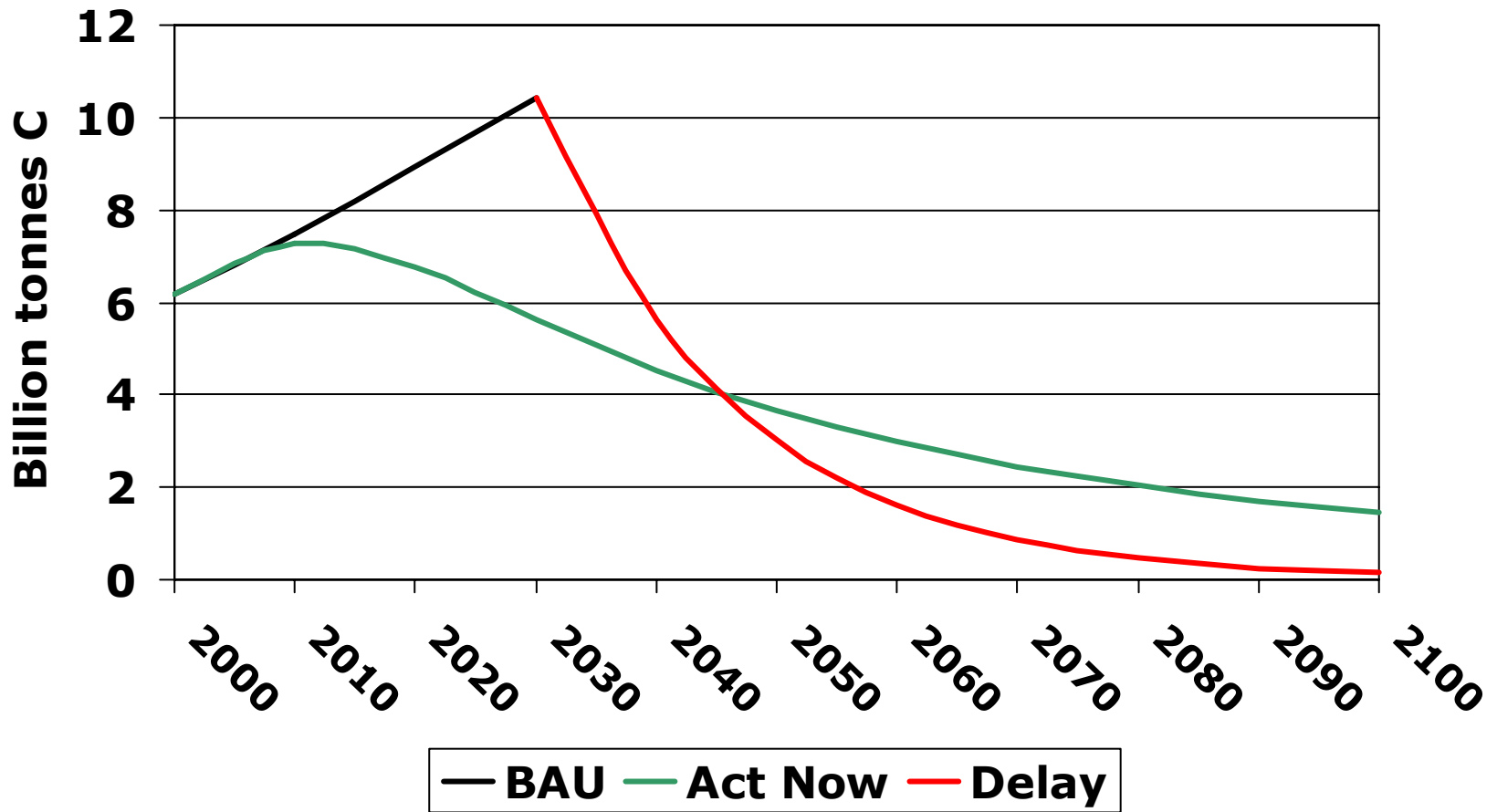
CO2 impact of new coal uses



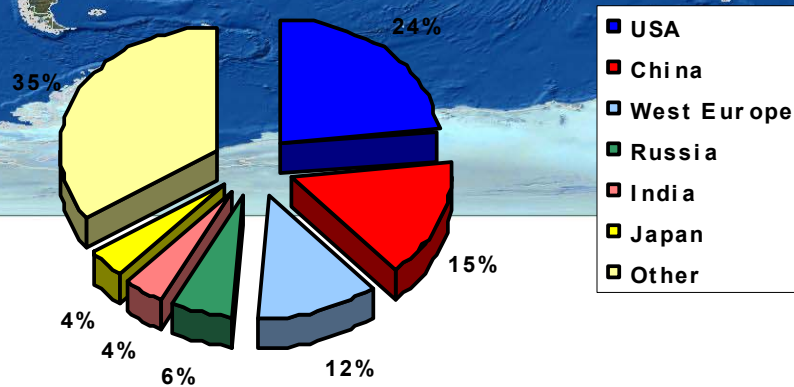
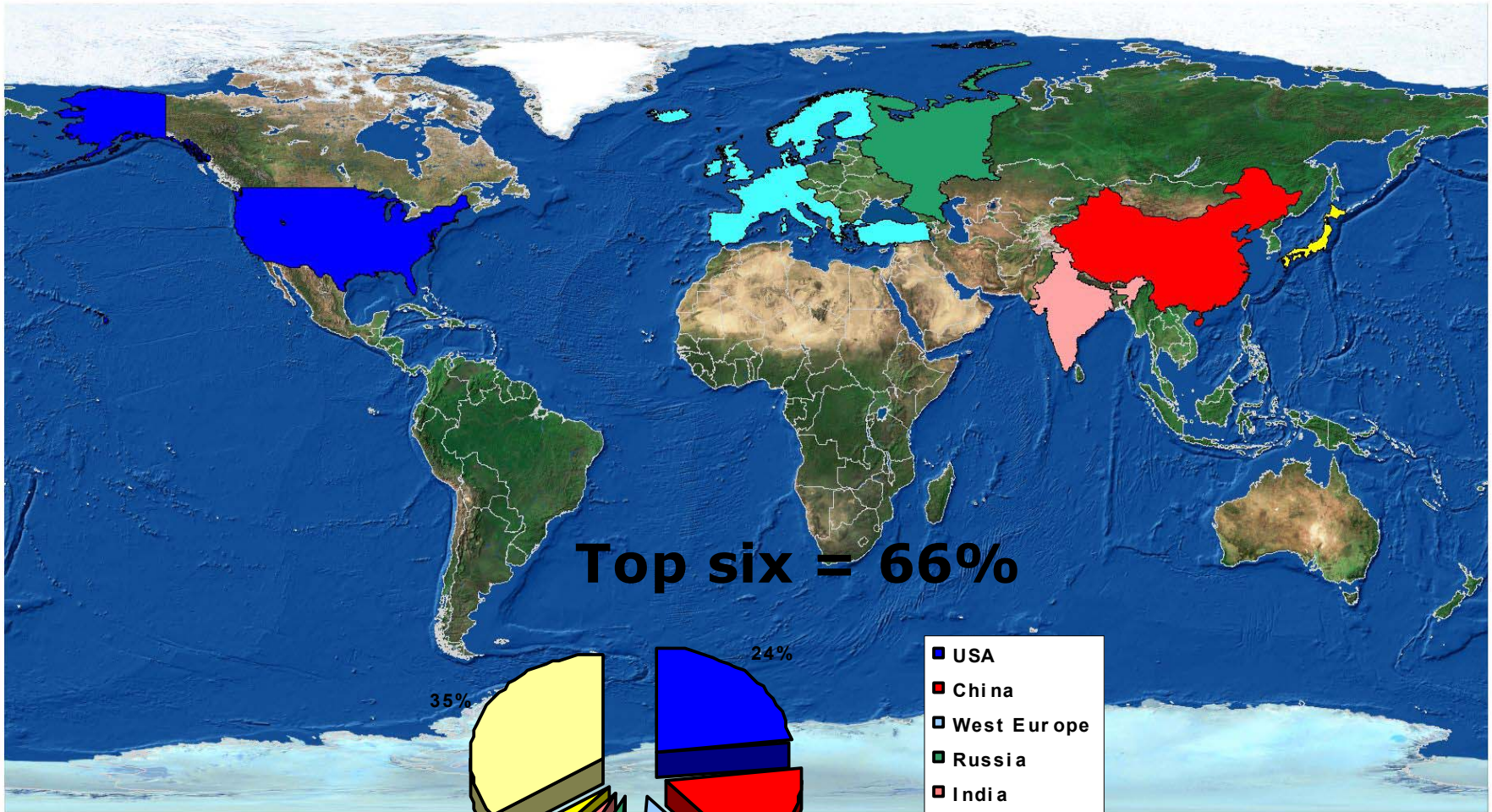
US CO2 from coal (10⁹ tons)

Delay Means Disruption

Global Energy Carbon Emissions



Biggest CO₂ emitters 2000-2025



- USA
- China
- West Europe
- Russia
- India
- Japan
- Other