



2050 LCS Scenario and Electricity Allocation Analysis

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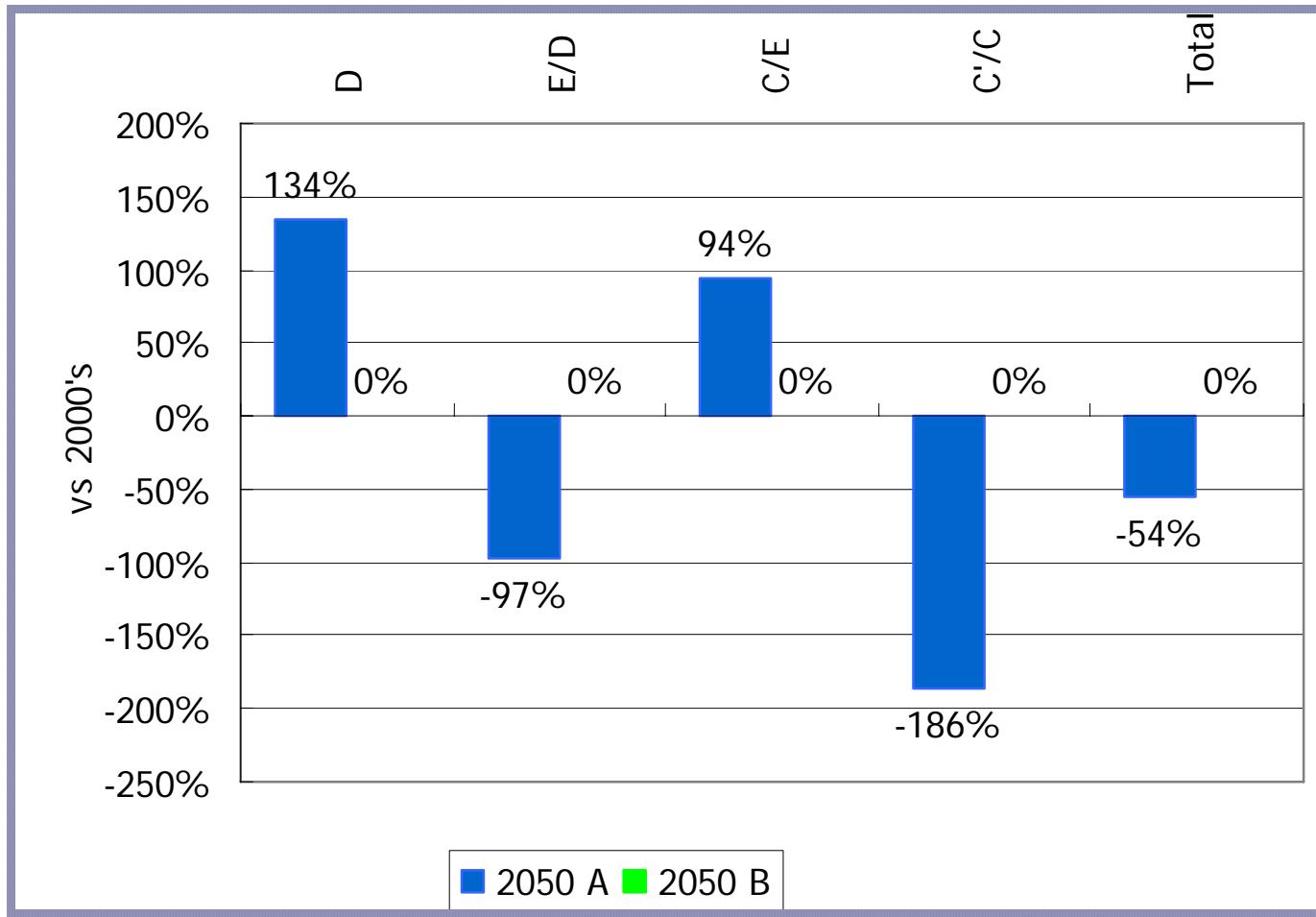
Institute of Nuclear Energy, Taiwan
20 October 2006



■ Practice output

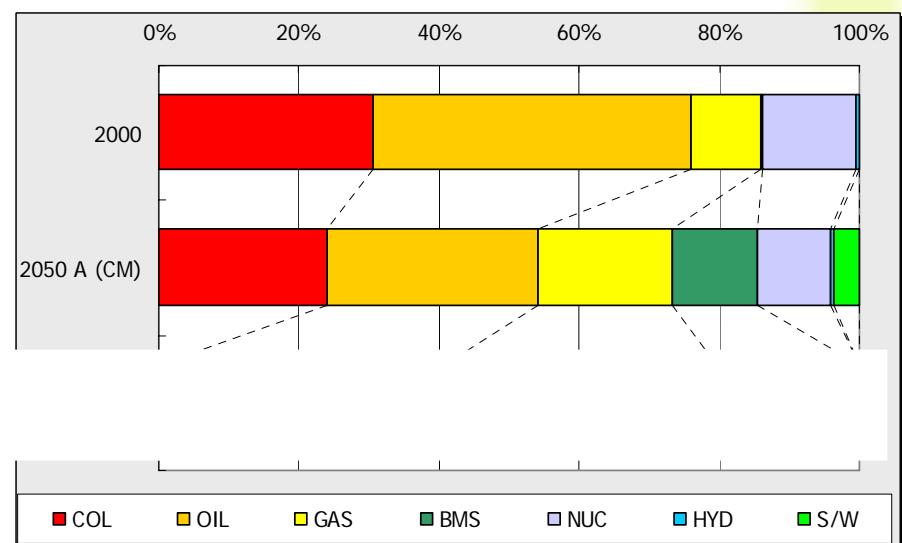
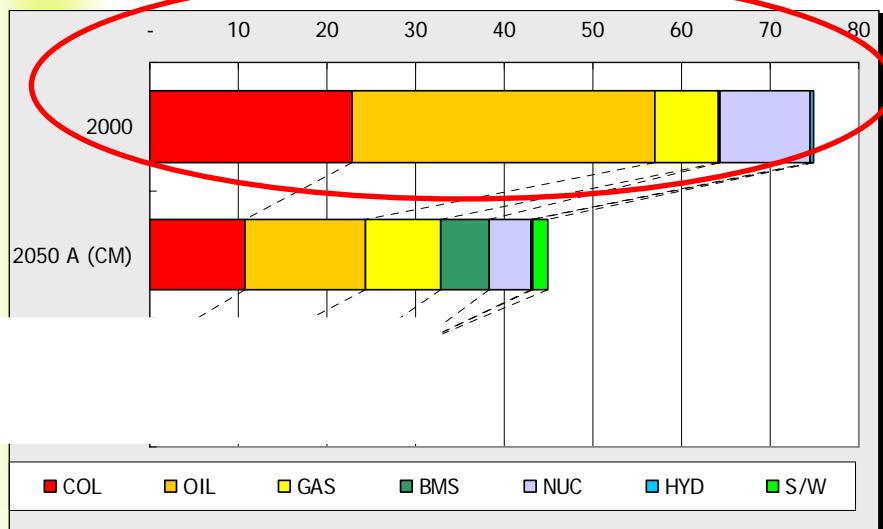
- 2050 LCS scenario by energy snapshot tool
- Electricity allocation analysis by End_use model

2050 LCS scenario - Factor analysis



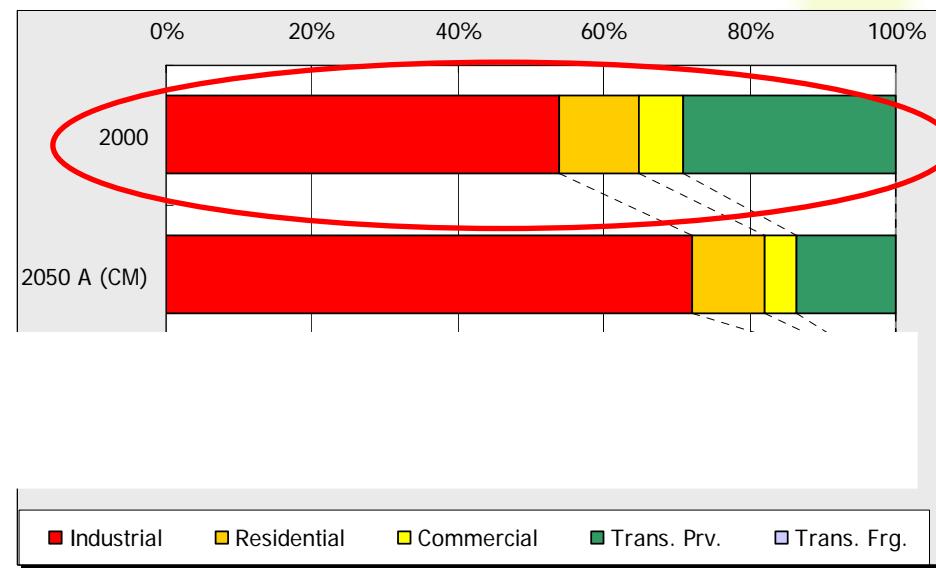
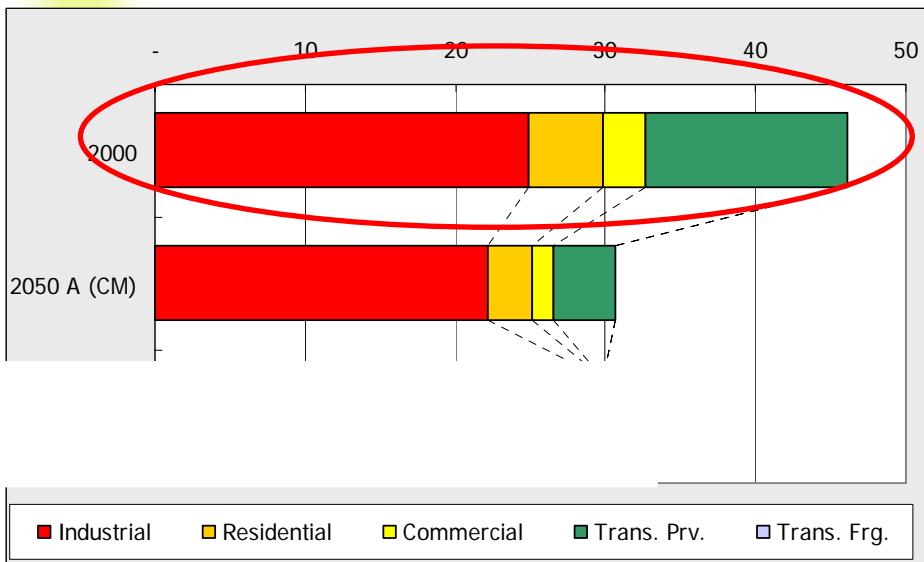
LCS scenario

Primary energy consumption



LCS scenario (continued)

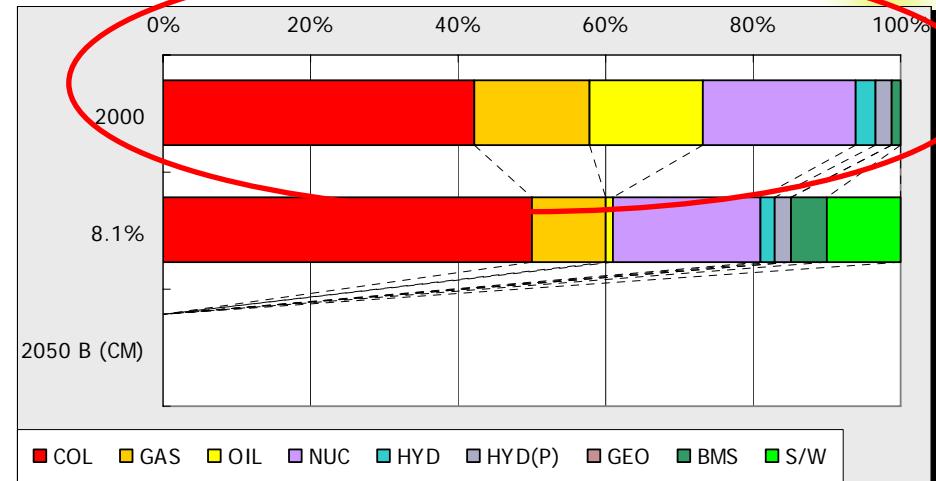
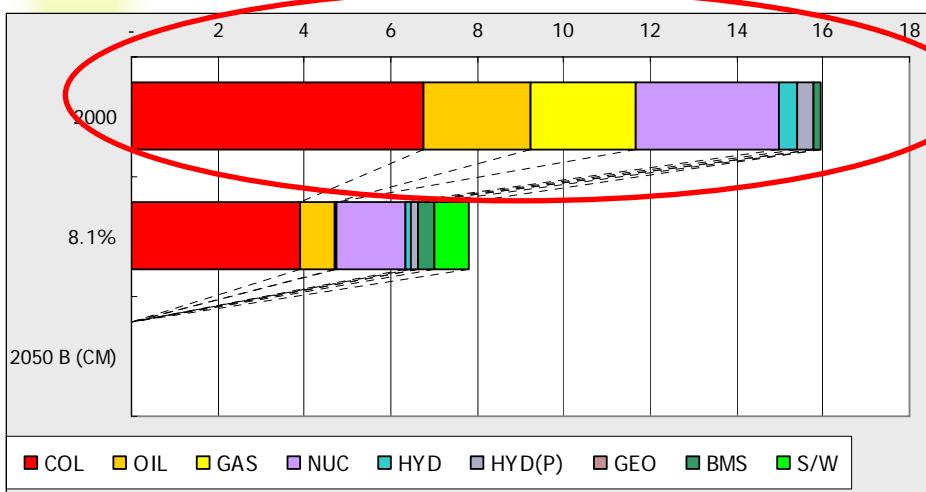
Secondary energy consumption



Simplification: Combine trans passenger and fright to one sector

LCS scenario (continued)

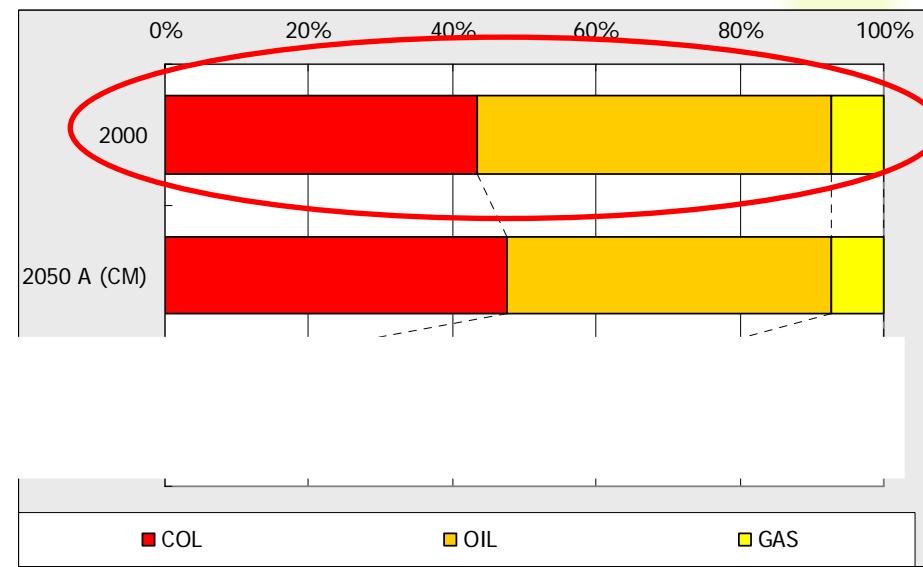
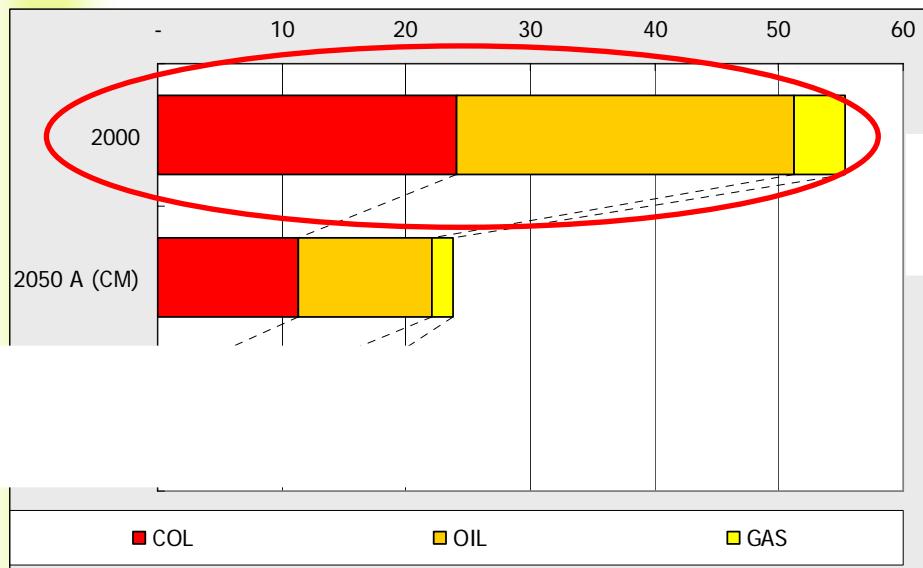
Energy consumption in power generation sector (Mtoe)



Energy mix in power generation sector (Mtoe)

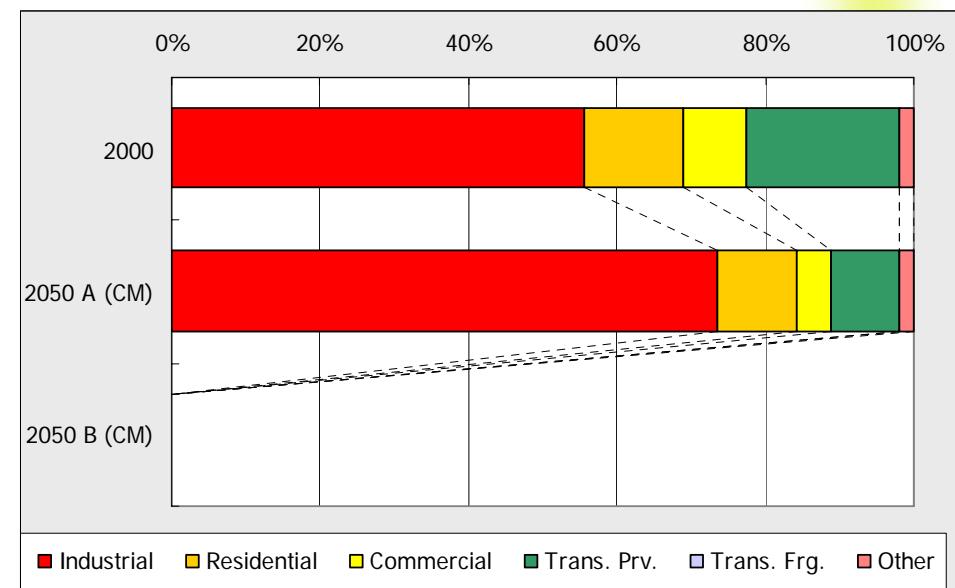
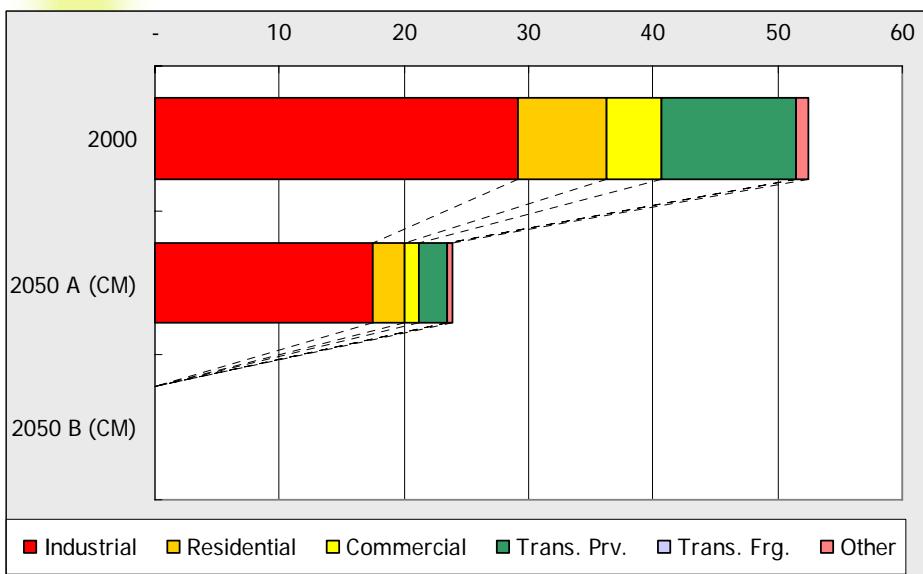
LCS scenario (continued)

CO₂ emission by fuel



LCS scenario (continued)

CO_2 emission by sector



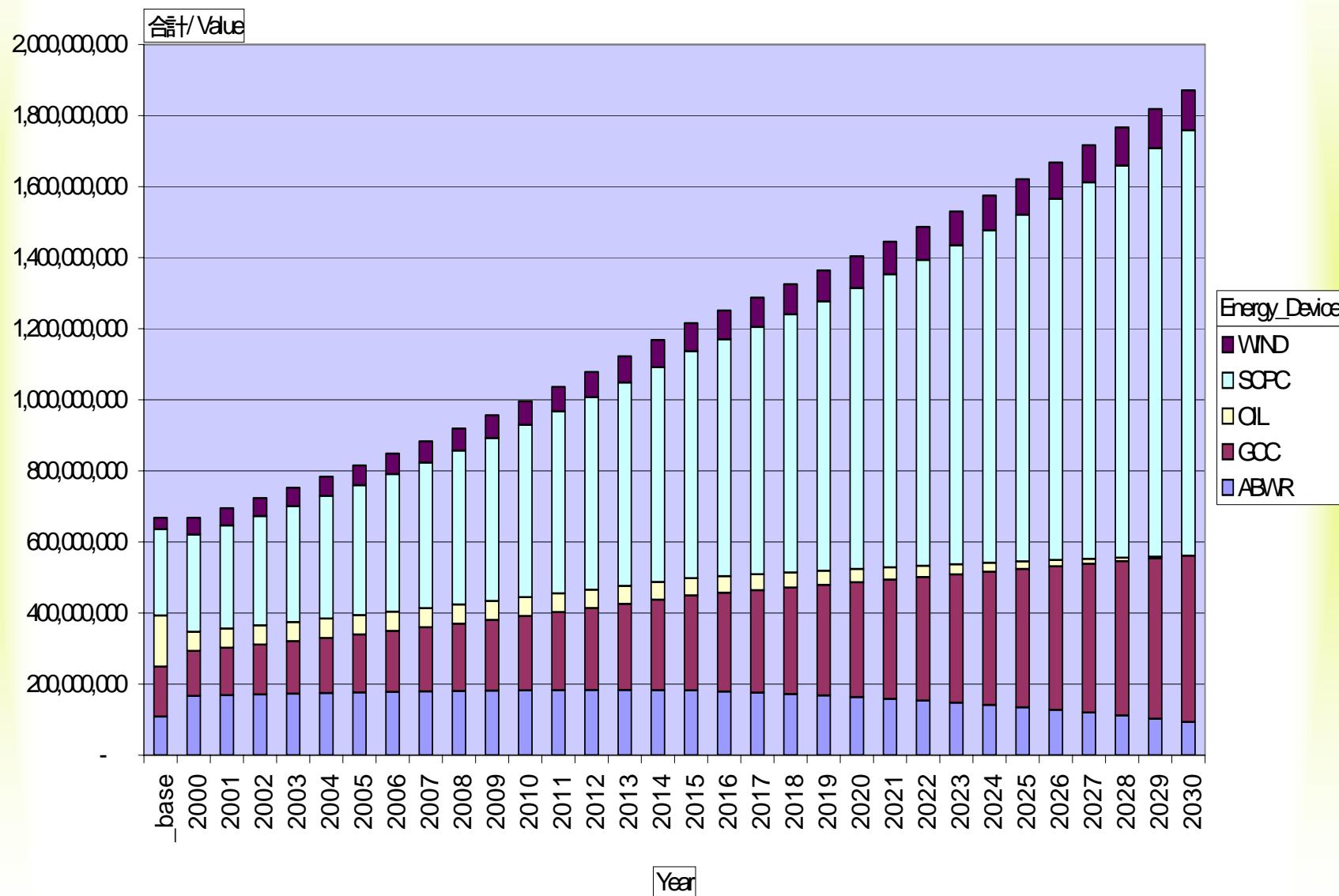


Electricity allocation analysis- End_use tool

- Technology included: coal, nuclear, oil, gas, others
 - BAU:2000-2030
 - 2000:calibrated with historical data



Sector(全部)	Kind(全部)	Removal(全部)	LPS_Area(全部)	Region(全部)	LPS(全部)	Value(全部)	Item	EN_ELC
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Electricity allocation analysis

- LCS scenario: no time to run
 - Nuclear, IGCC with sequestration, and renewable energy will be important option