

Renewable Energy in EIA Forecasting

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Background

- EIA is an independent statistical and analysis agency within the U.S. Department of Energy
- EIA analyzes policy proposals for policy makers
 - EIA does not develop, design, or advocate policy
 - This presentation should not be construed as an endorsement for or against any policy

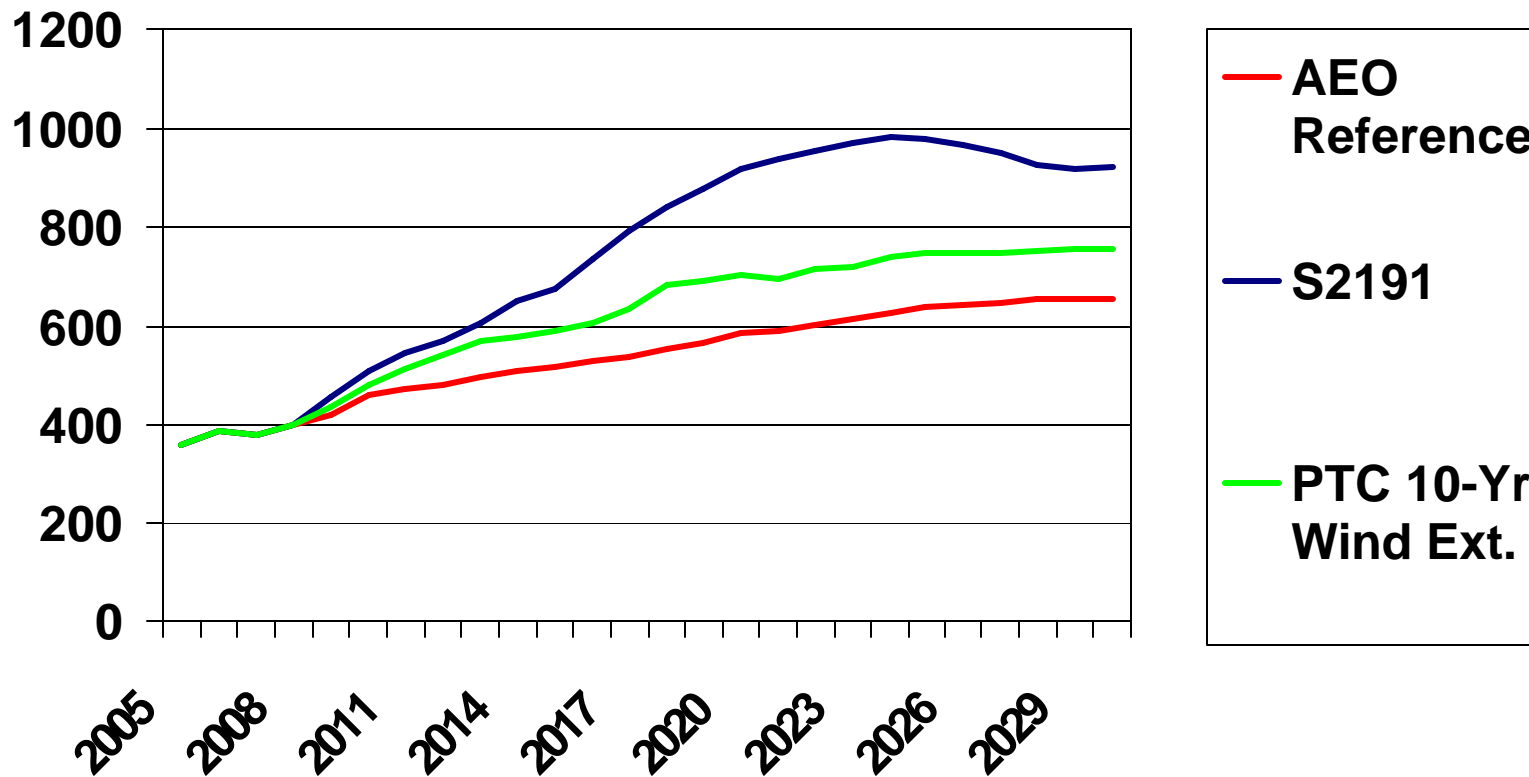


Cases

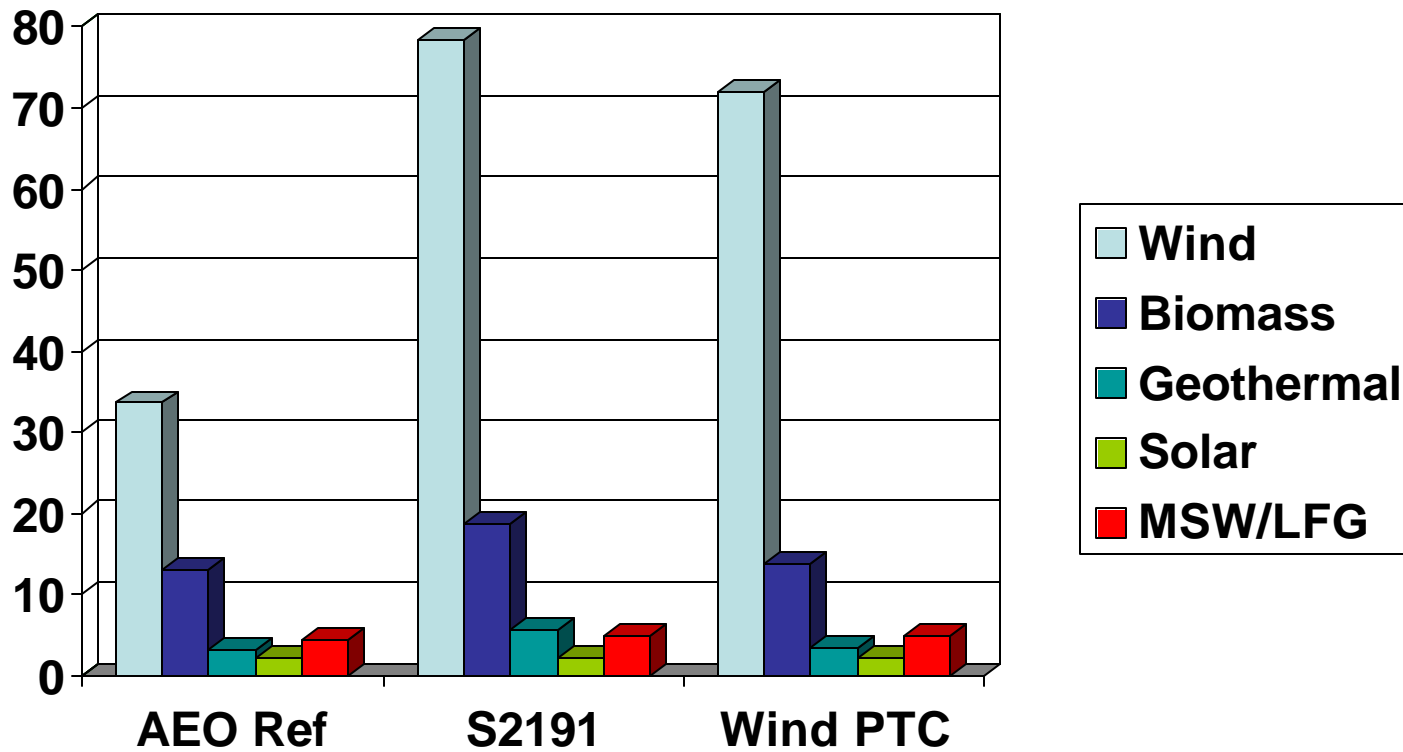
AEO2008 Reference Case	S.2191 (Lieberman Warner)	10-Year Wind PTC Extension
<ul style="list-style-type: none">•Current laws and regulations•Updated for EISA mandated RFS•Includes State RPS Programs as of December 2007	<ul style="list-style-type: none">•Calls for a 70-percent reduction in GHG by 2050•Allowances prices are \$30 in 2020 and \$61 in 2030•Analysis does not include recent changes	<ul style="list-style-type: none">•Continues 2-cent renewable production tax credit for wind turbines only.•Extension is in effect for 10 years.

Renewable Generation

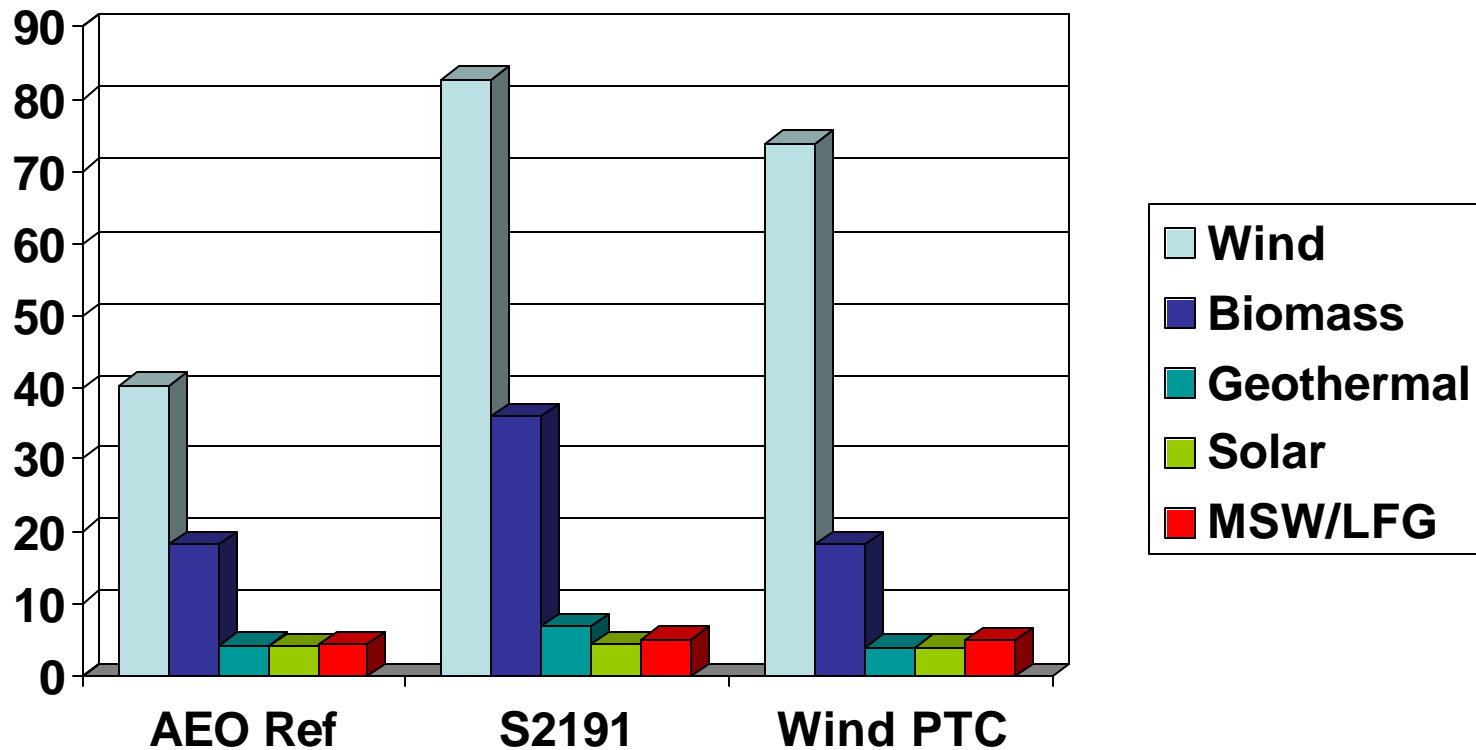
(Billion kilowatthours)



2020 Renewable Capacity (Gigawatts)

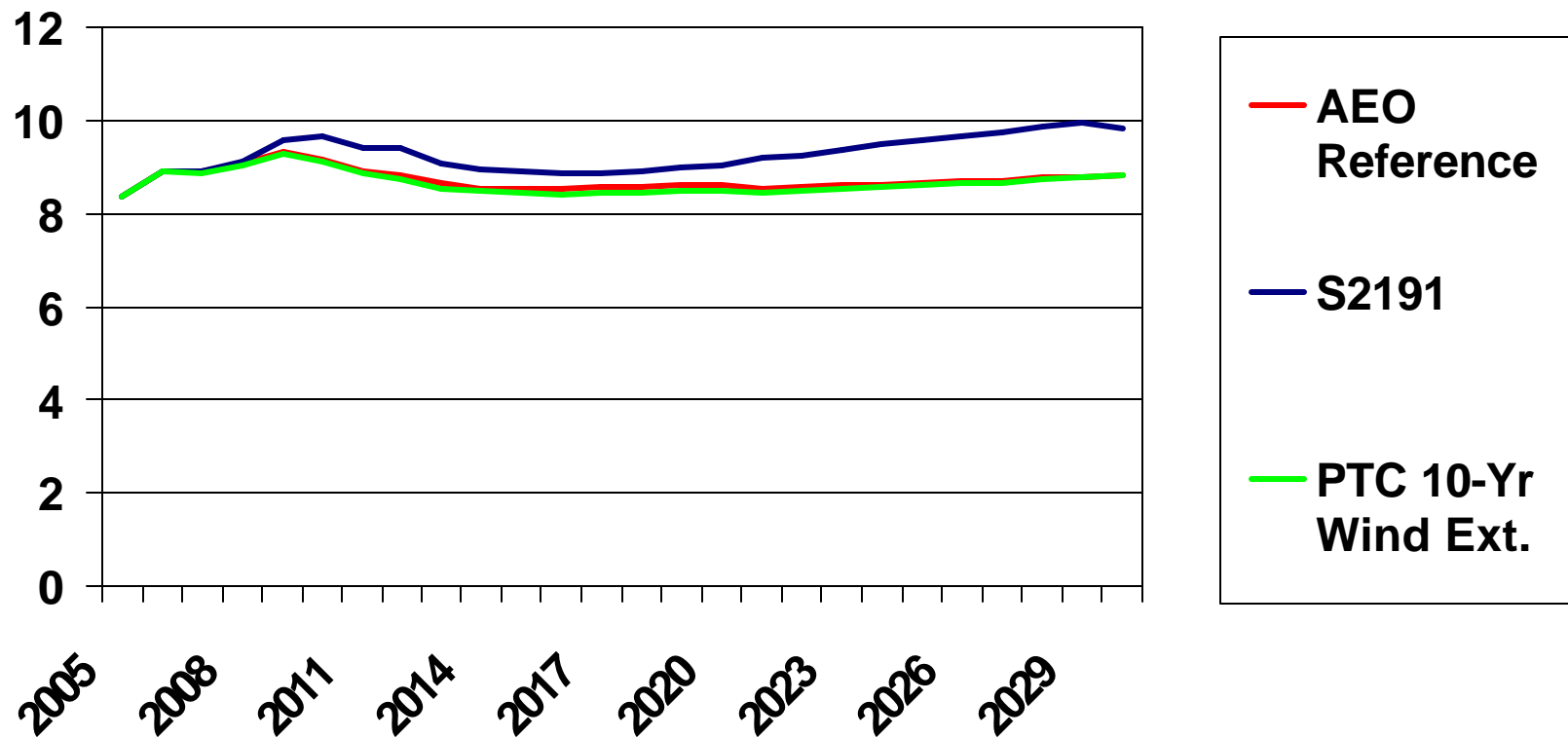


2030 Renewable Capacity (Gigawatts)

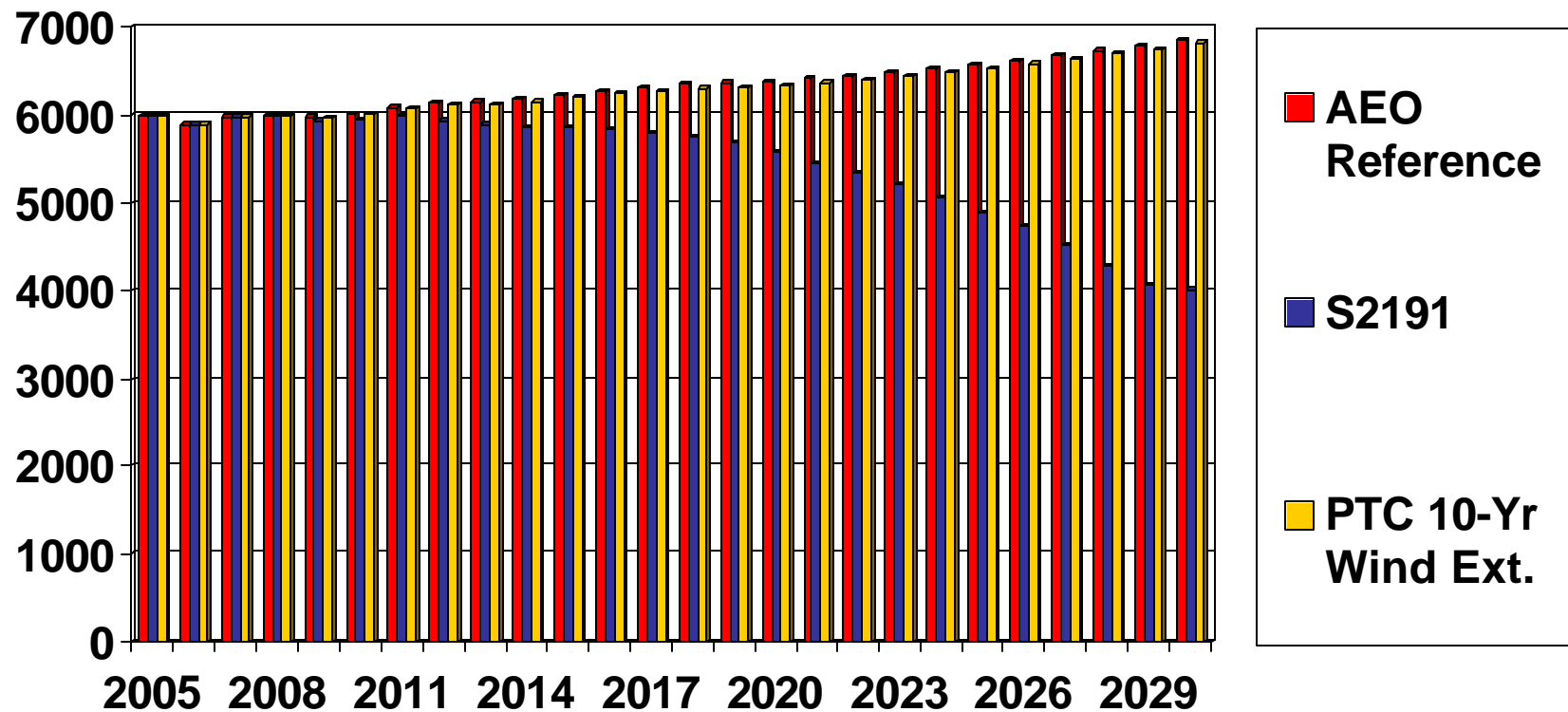


Electricity Prices

(2006 Cents per kWh)



U.S. Carbon Dioxide Emissions (Million tonnes)

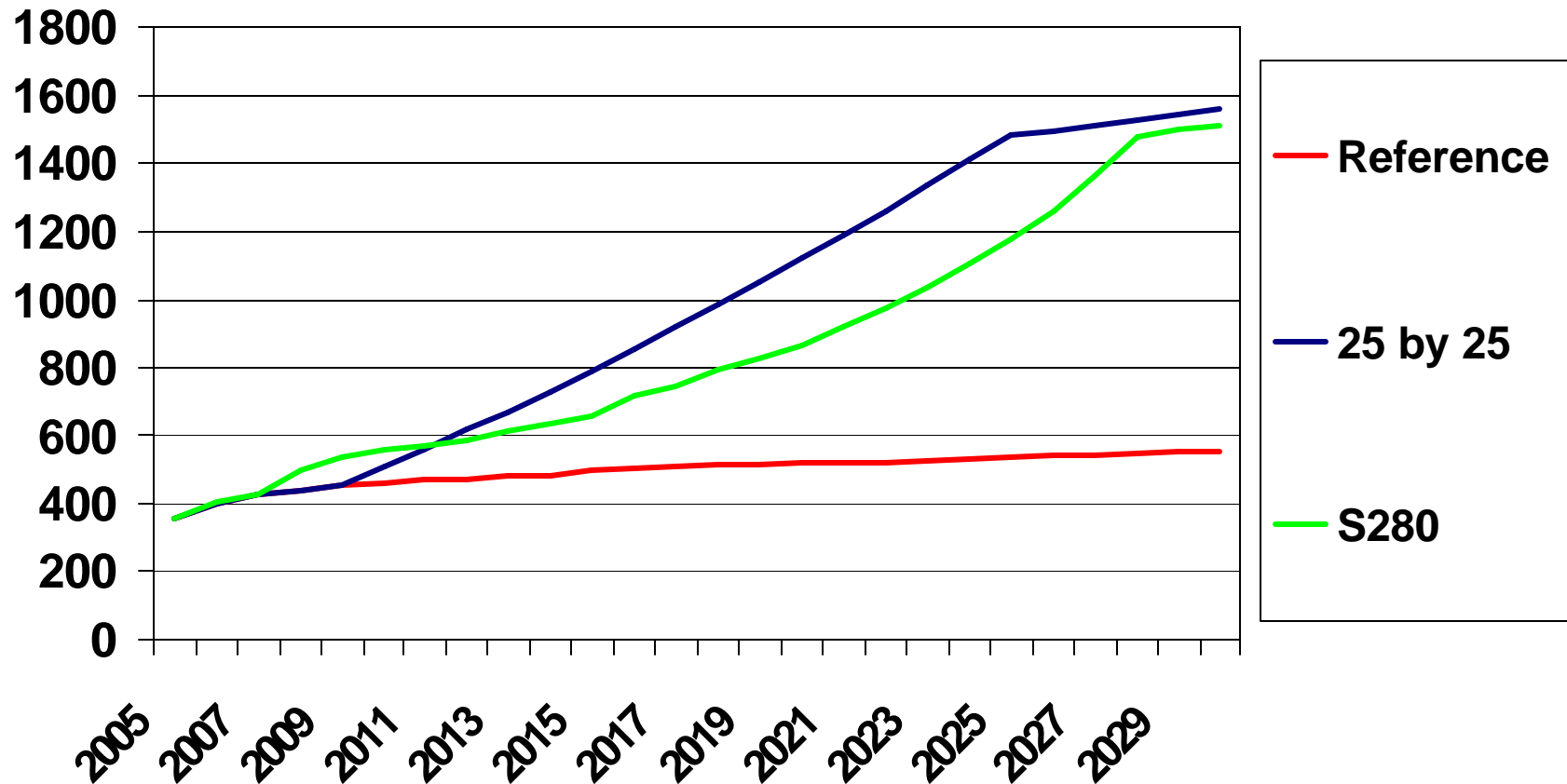


Cases

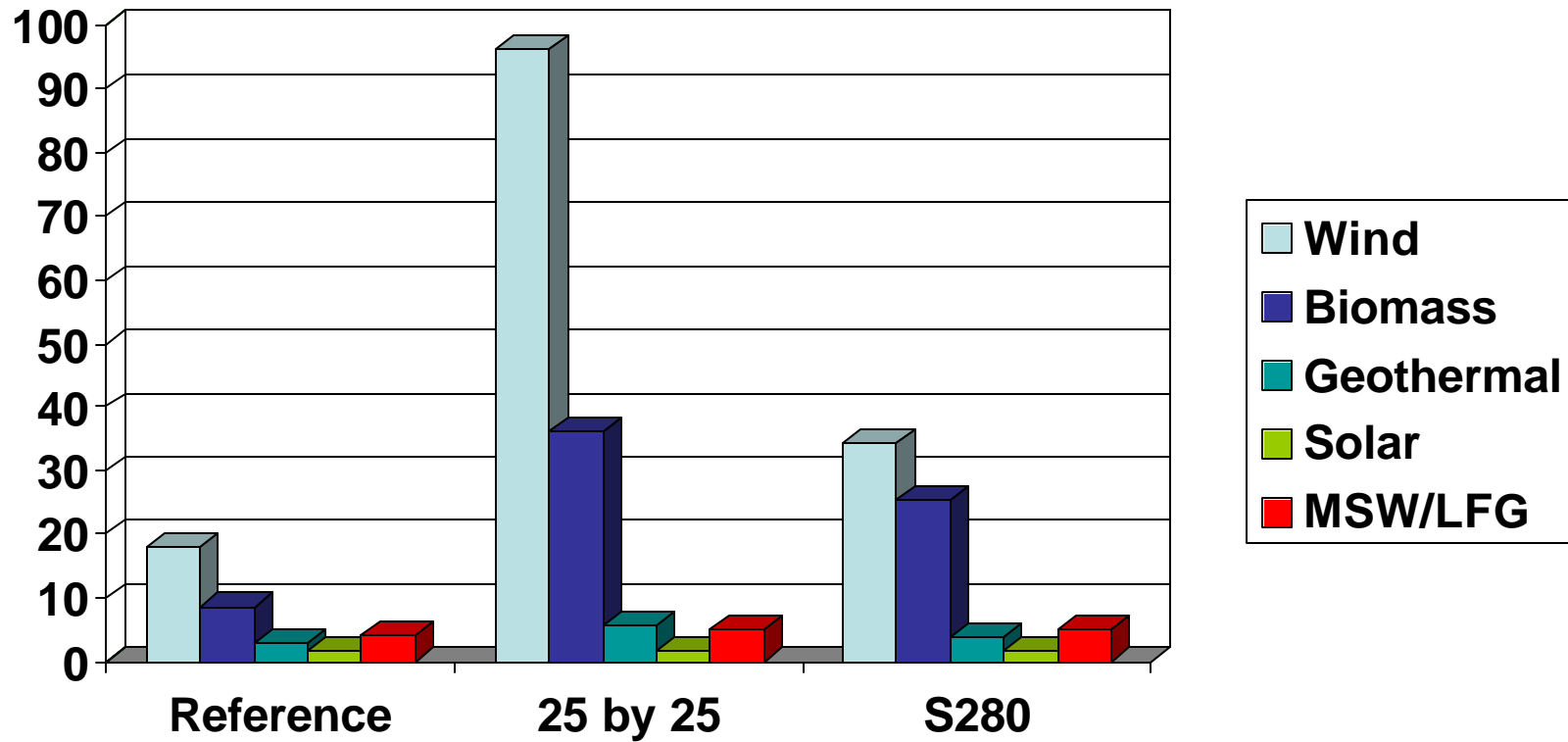
Reference Case	25 Percent Renewable Power and Fuel by 2025	S.280 (McCain Lieberman)
<ul style="list-style-type: none"> •Current laws and regulations at time of publication •Optimistic biomass capital cost assumptions •No State RPS Programs 	<ul style="list-style-type: none"> •Calls for 25-percent of electricity (excluding existing hydro) to be renewable by 2025 •Same percentage requirement for fuels, which equals about 60 billion gallons of ethanol 	<ul style="list-style-type: none"> •Achieves a 60-percent GHG reduction by 2050 •Not as generous with bonus allowances for CCS •Most new generation is nuclear and renewable

Renewable Generation

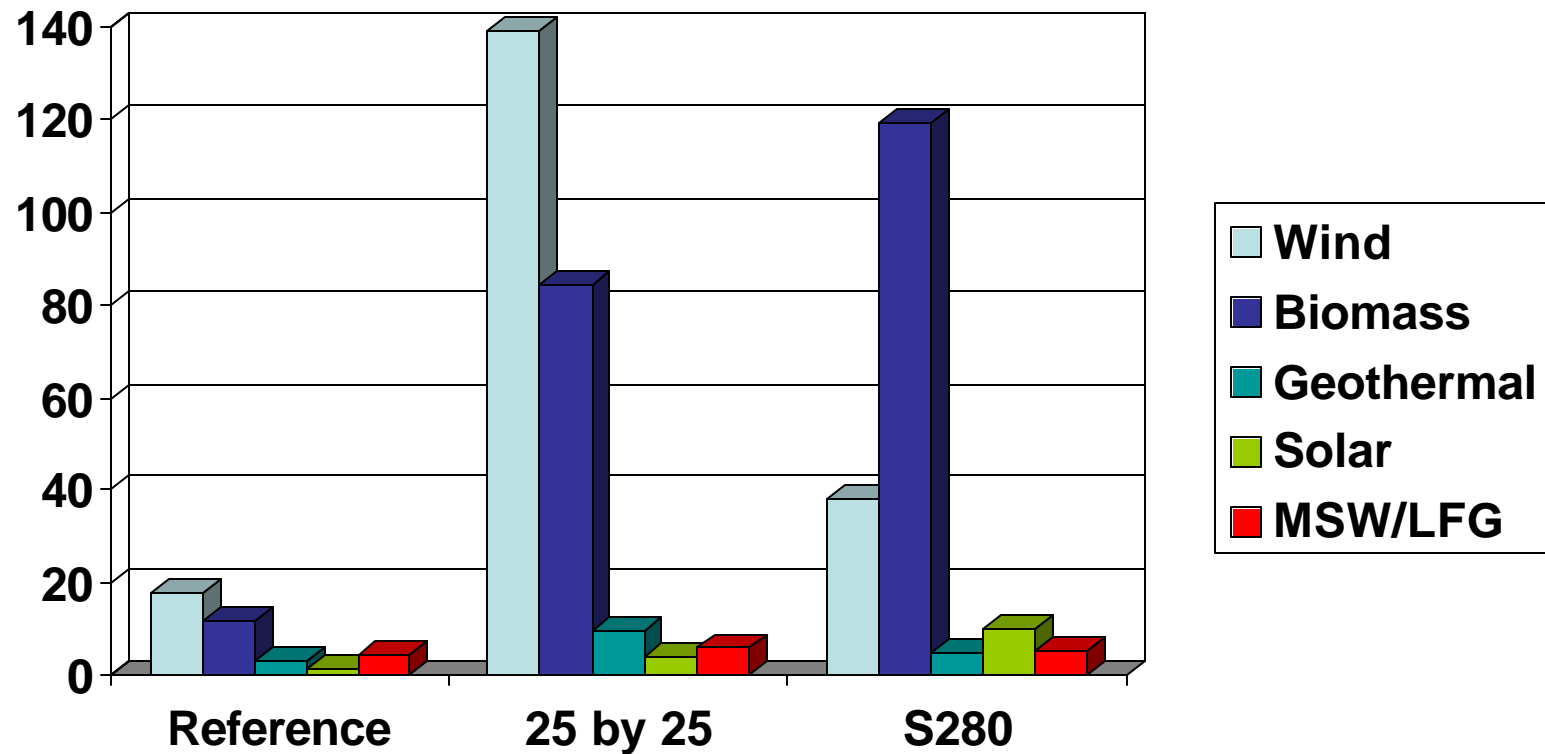
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2020 Renewable Capacity (Gigawatts)

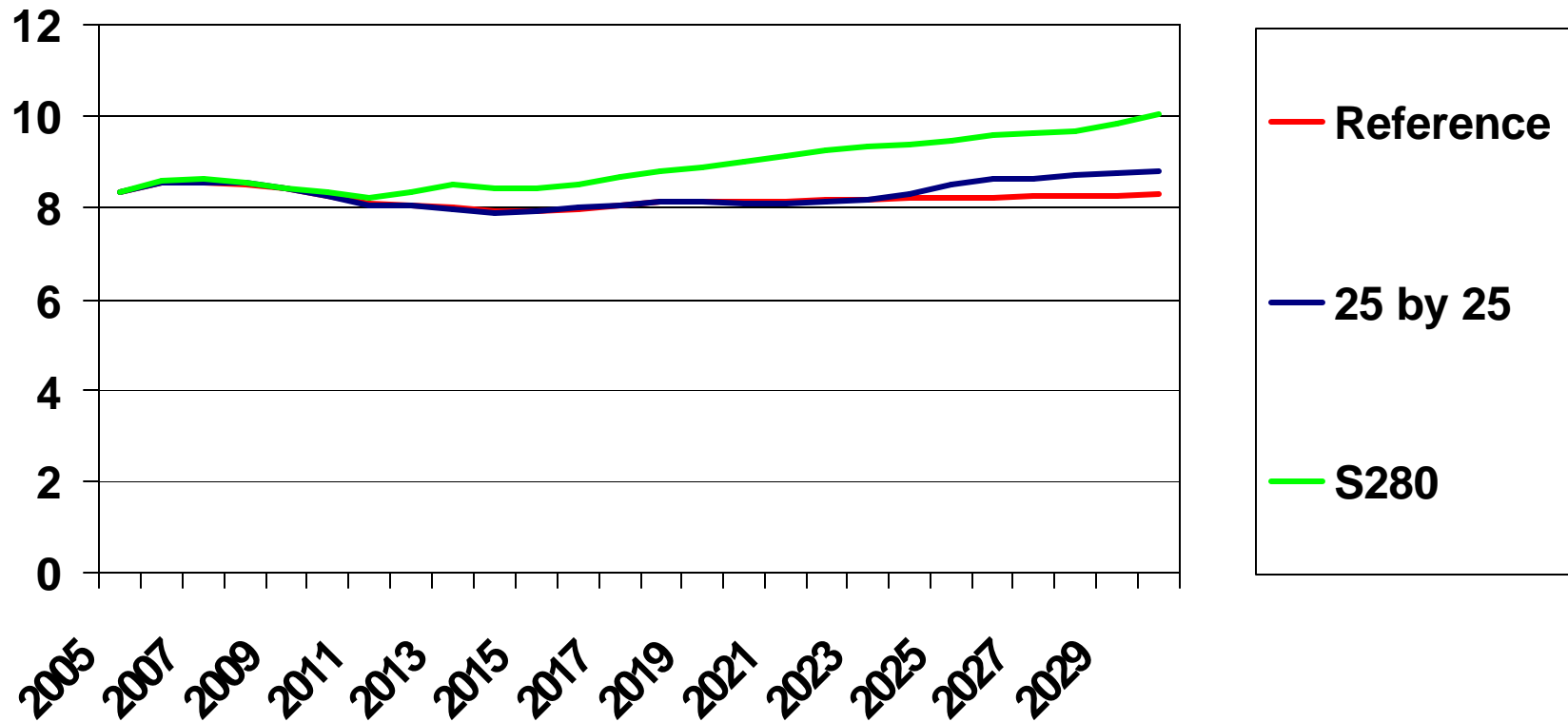


2030 Renewable Capacity (Gigawatts)



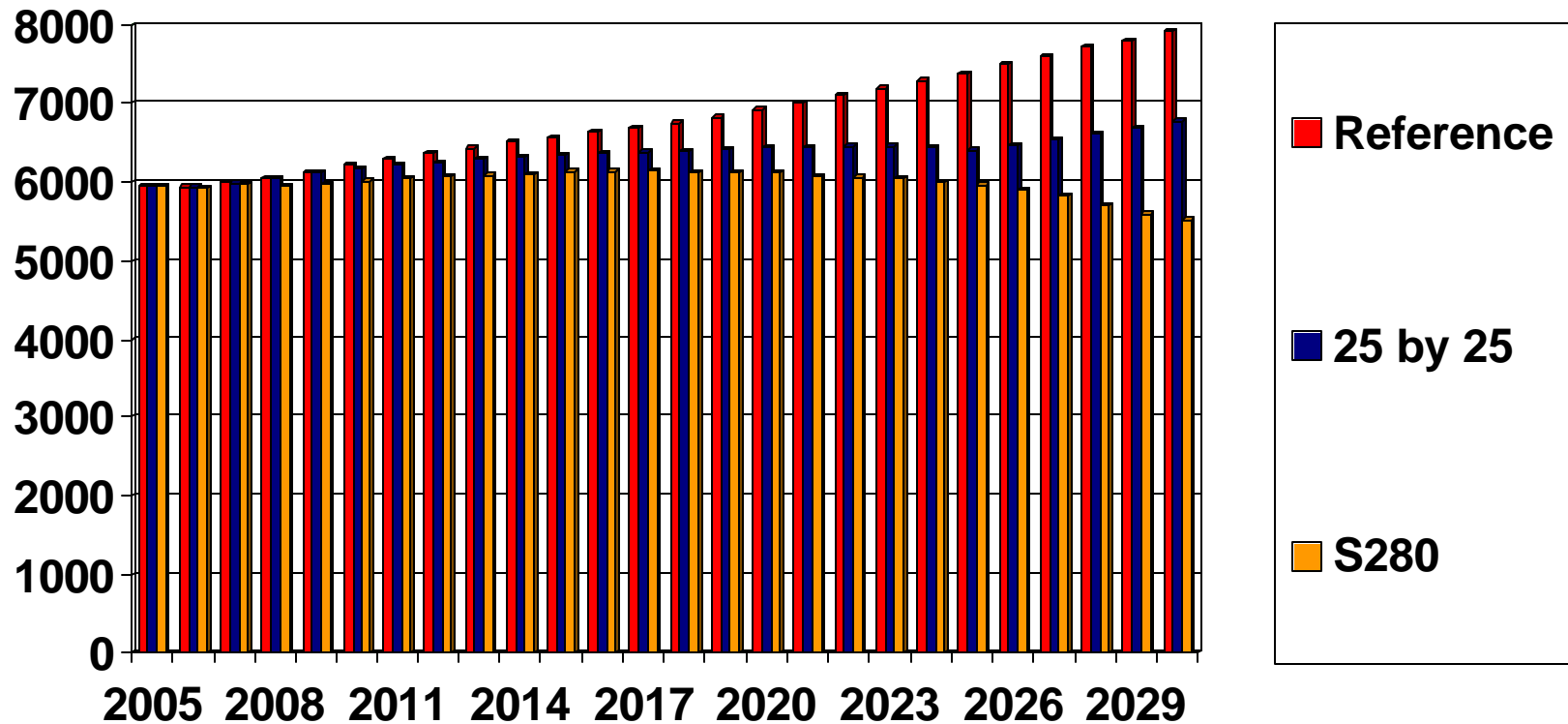
Electricity Prices

(2006 Cents per kWh)



U.S. Carbon Dioxide Emissions

(Million tonnes)



Conclusions

- While renewable technology plays a role in reducing carbon emissions, other technologies play important roles as well.
- Cap-and-trade is more effective at reducing carbon than are RPS programs.

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