

# Renewable Portfolio Standards Costs and Benefits

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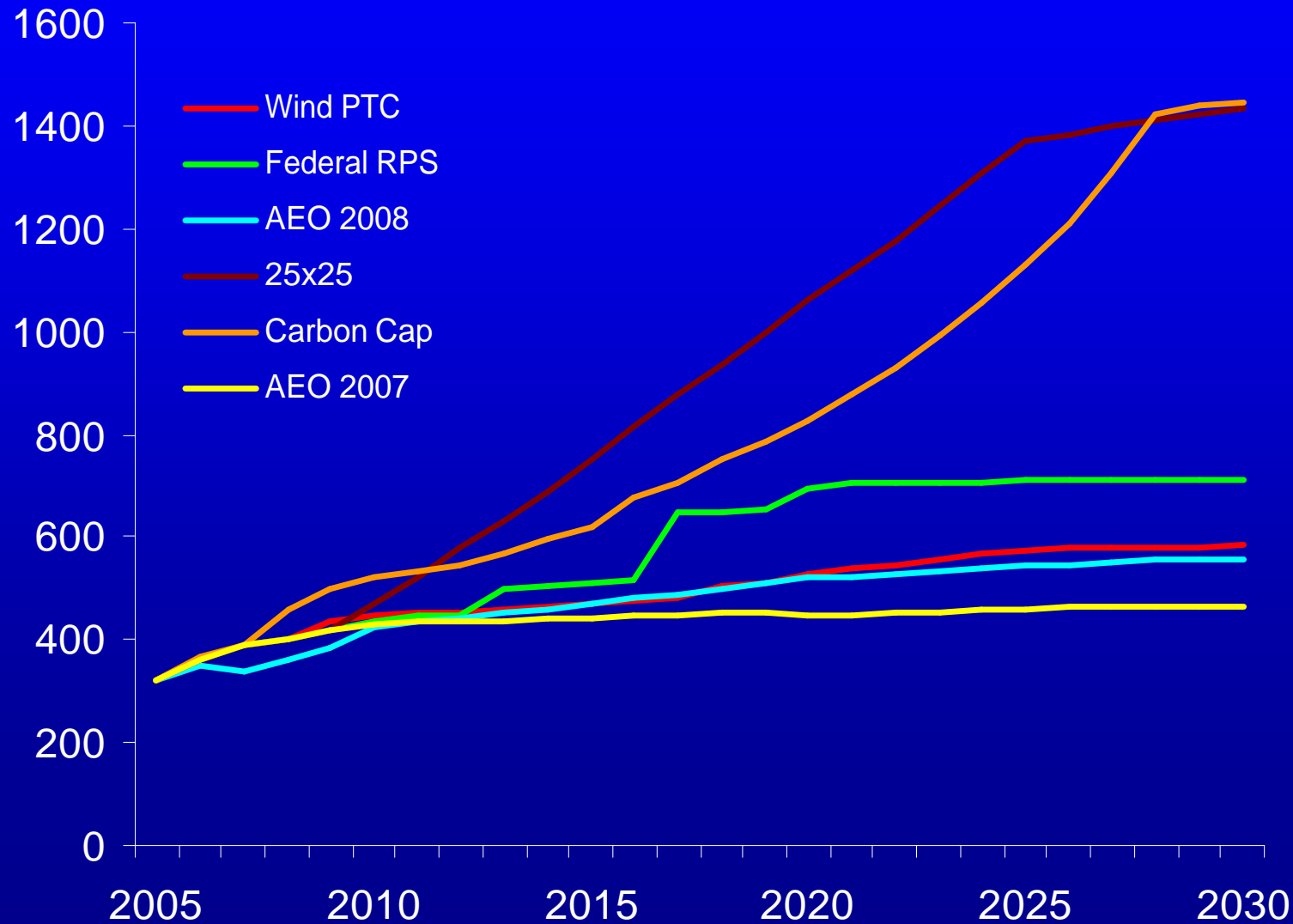


# EIA Analyses of RPS Policy

- AEO 2008 – Includes state RPS program
- Other scenarios are based on AEO 2007
  - Bingaman RPS – 15 percent national RPS by 2020
  - 25 X 25 Proposal – 25 percent national RPS by 2025 plus 25 percent biofuels
- Other renewable policy
  - Lieberman/McCain – 1990 emissions by 2030
  - PTC extension – Wind ONLY, permanent extension

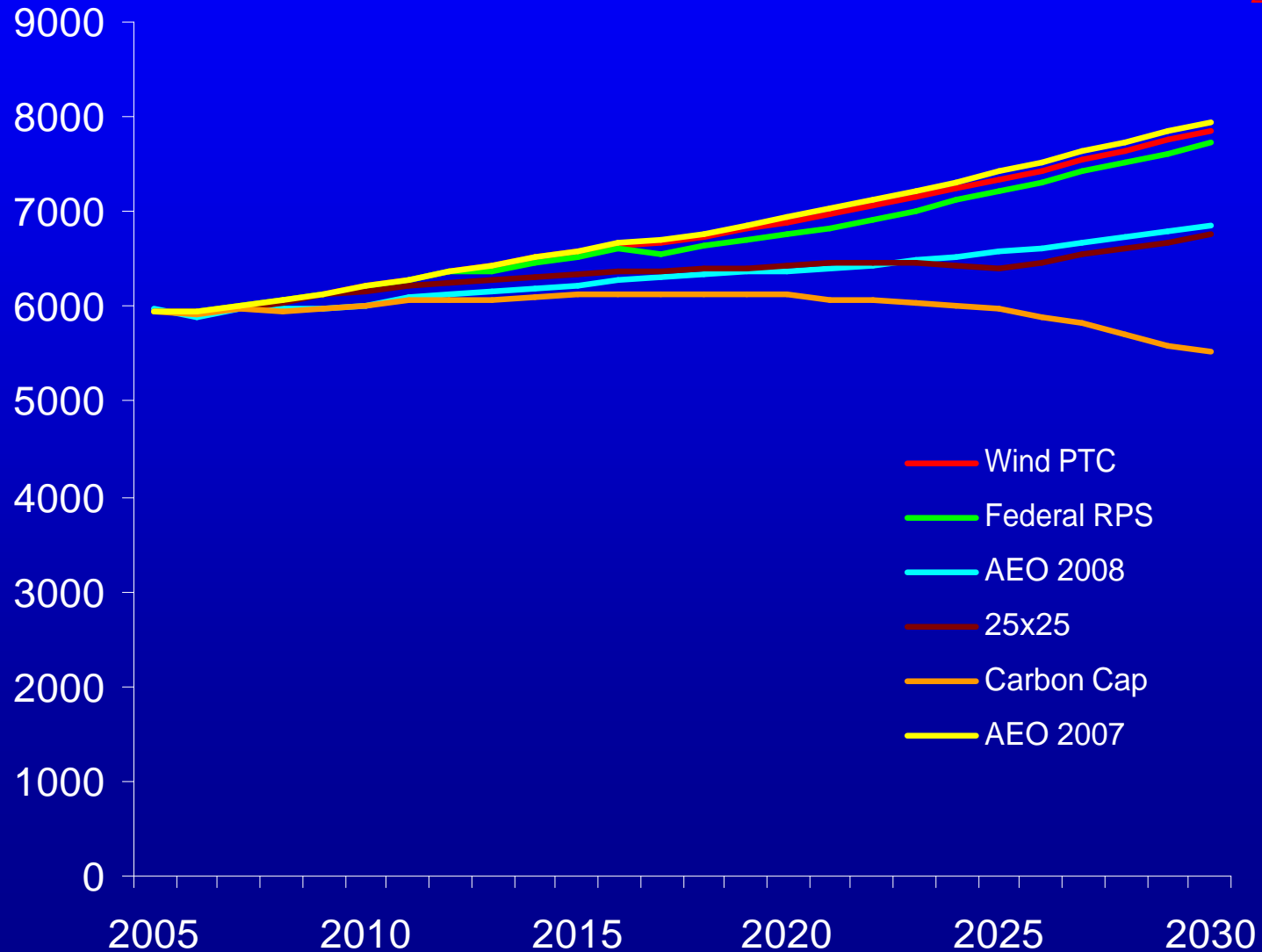
# Many policies can increase renewable generation

Utility-Sector Renewable Generation 2005-2030, billion kilowatthours



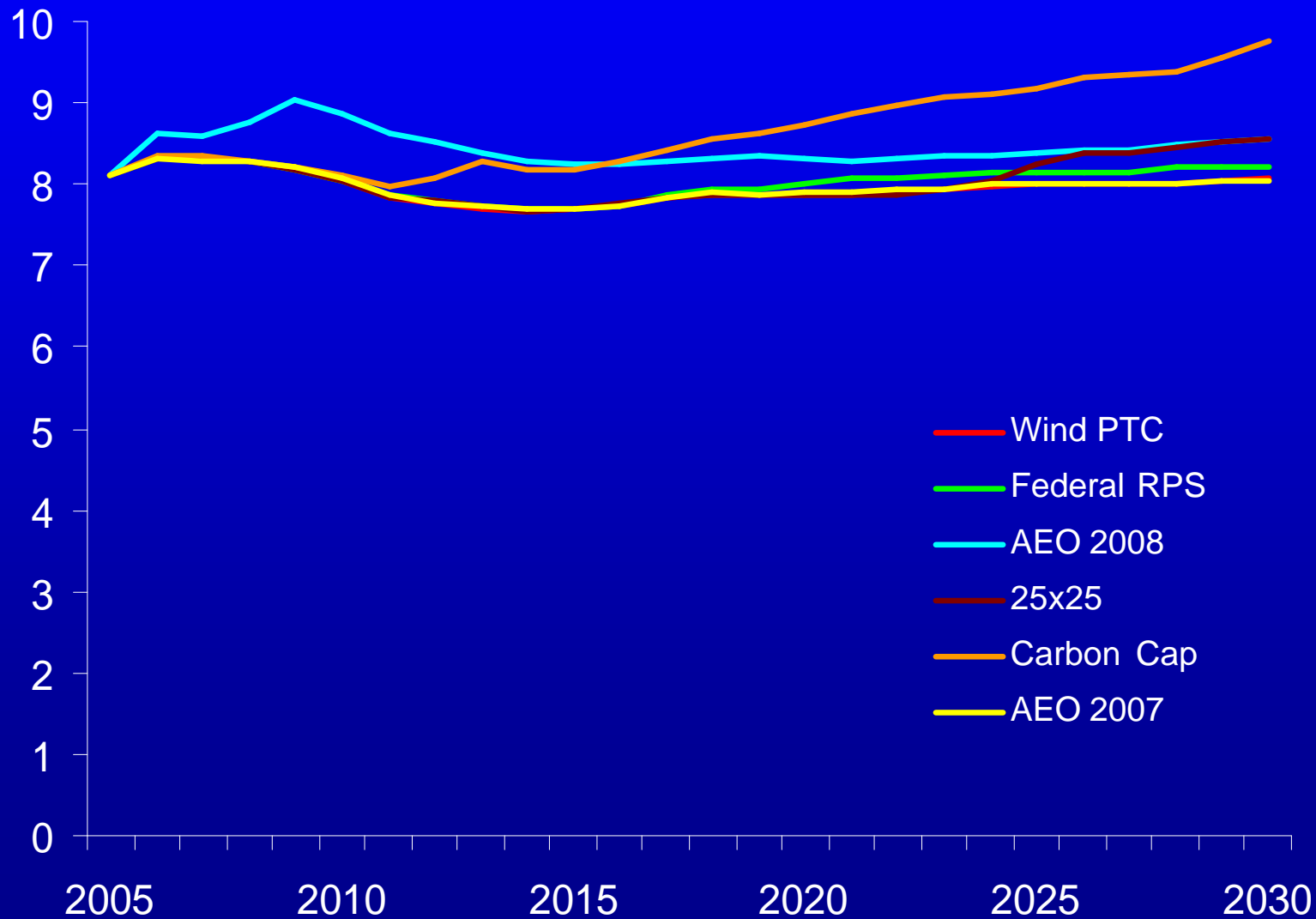
# Carbon reductions vary substantially among cases

Carbon Emissions, All Fuel 2005-2030, million metric tons CO<sub>2</sub> equivalent



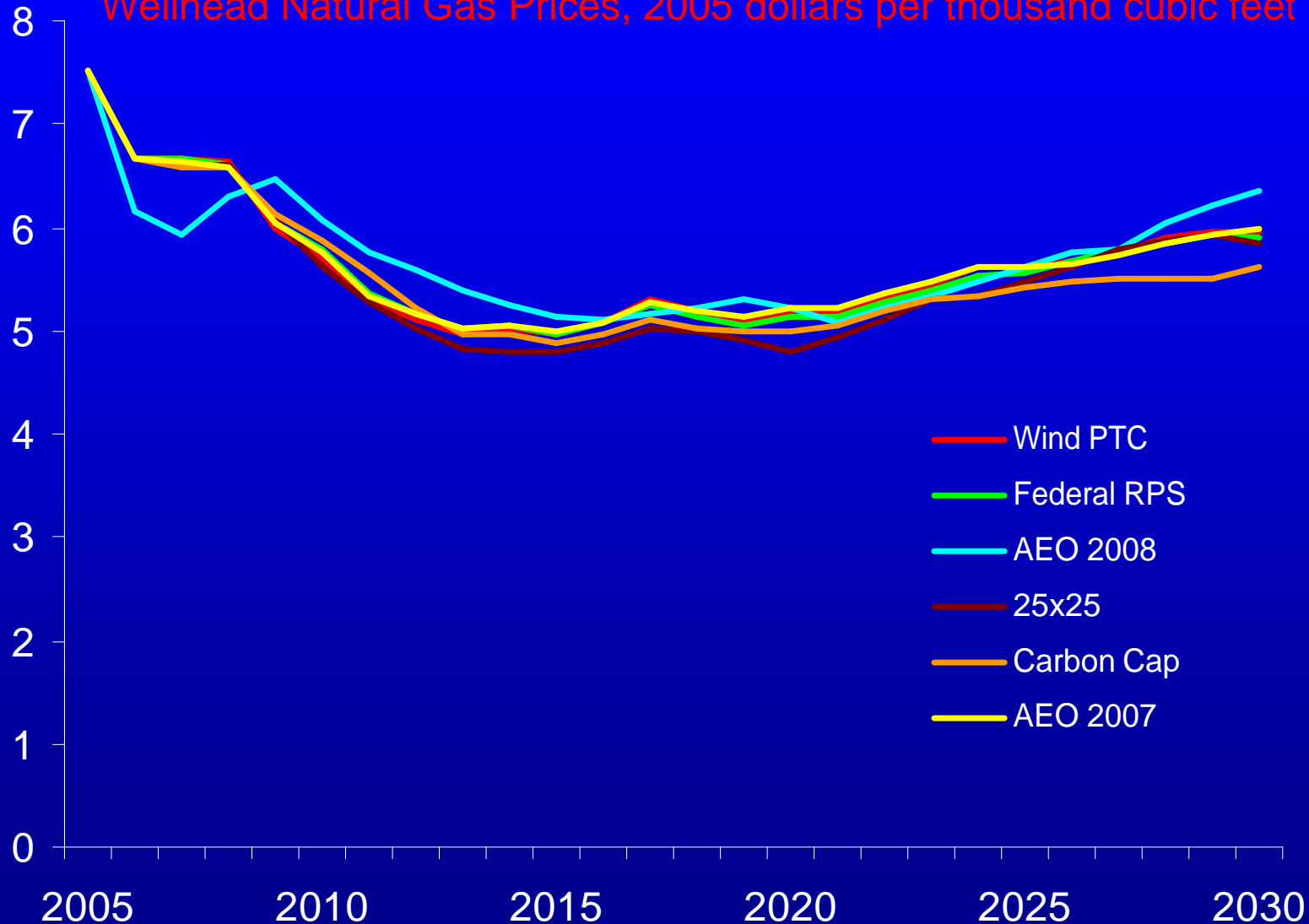
# Electricity prices vary by as much as 15 percent among cases

Retail Electricity Prices, 2005 cents per kilowatthour



# Natural gas prices show similar variation among cases

Wellhead Natural Gas Prices, 2005 dollars per thousand cubic feet



# Conclusions

- RPS policy is only one among several policy options that would incentivize renewable generation
- Impacts of renewable policy are path-dependent
  - Similar penetration levels of renewable generation can yield significantly different impacts on energy markets and carbon emissions