
The U.S. Energy Outlook

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Paris, France

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U.S. Energy Information Administration
Independent Statistics and Analysis

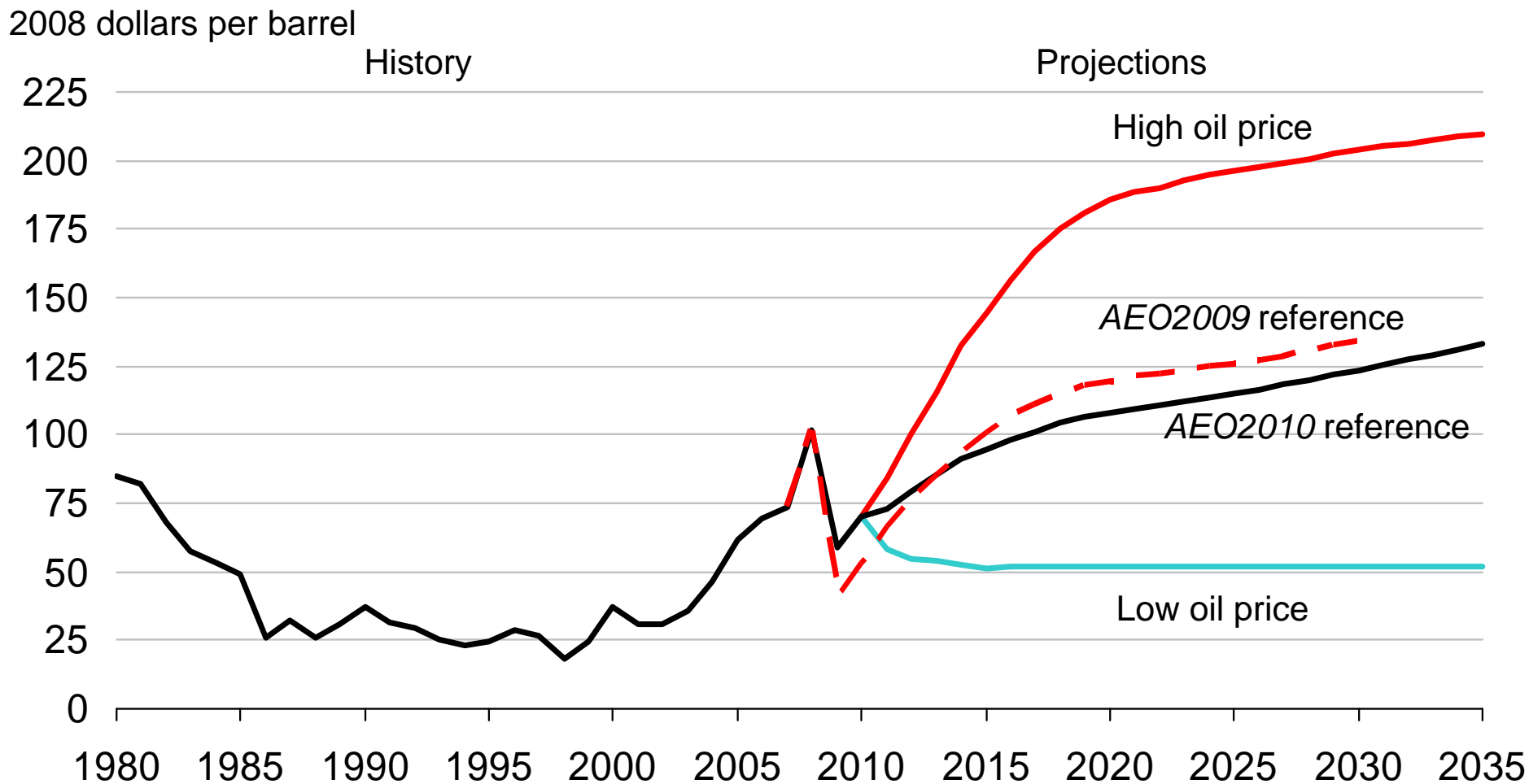
How does the *Annual Energy Outlook 2010* reference case handle public policy and technology?

- Generally assumes current laws and regulations
 - provisions sunset if specified (e.g., renewable tax credits expire)
 - excludes potential future laws and regulations (e.g., proposed greenhouse gas legislation is not included)
 - some grey areas
 - adopts proposed regulations that are not yet final, in order to inform the likely implementation of a statute
 - adds a premium to the capital cost of CO₂-intensive technologies to reflect market behavior regarding possible CO₂ regulation
 - assumes implementation of existing regulations that enable building new energy infrastructure and resource extraction
- Includes technologies that are commercial or reasonably expected to become commercial in the next decade or so
 - includes cost and efficiency improvements from learning, but not revolutionary or breakthrough technologies

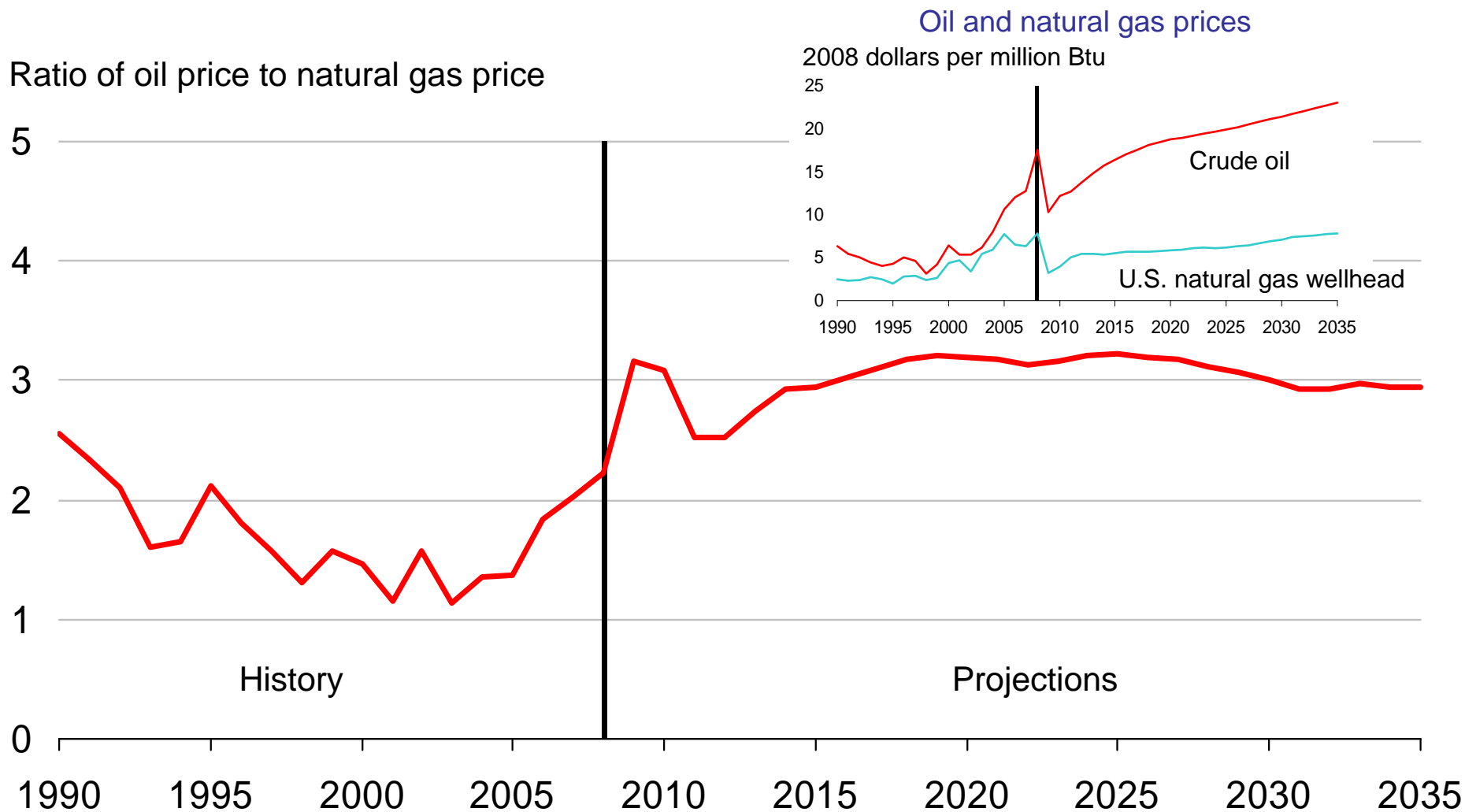
Key results from the *AEO2010* reference case

- Moderate energy consumption growth and greater use of renewables due to recent policies and rising energy prices
- Declining reliance on imported liquid fuels
 - U.S. oil use remains near its present level through 2035
 - growth in overall liquids demand is met by biofuels, and ethanol accounts for >17% of gasoline consumption by 2035
- Shale gas drives growth in U.S. natural gas production and reduces reliance on imported gas
- Electricity consumption grows by 1% per year over the projection
- Energy-related CO₂ emissions grow 0.3% per year, absent any new policies to limit emissions

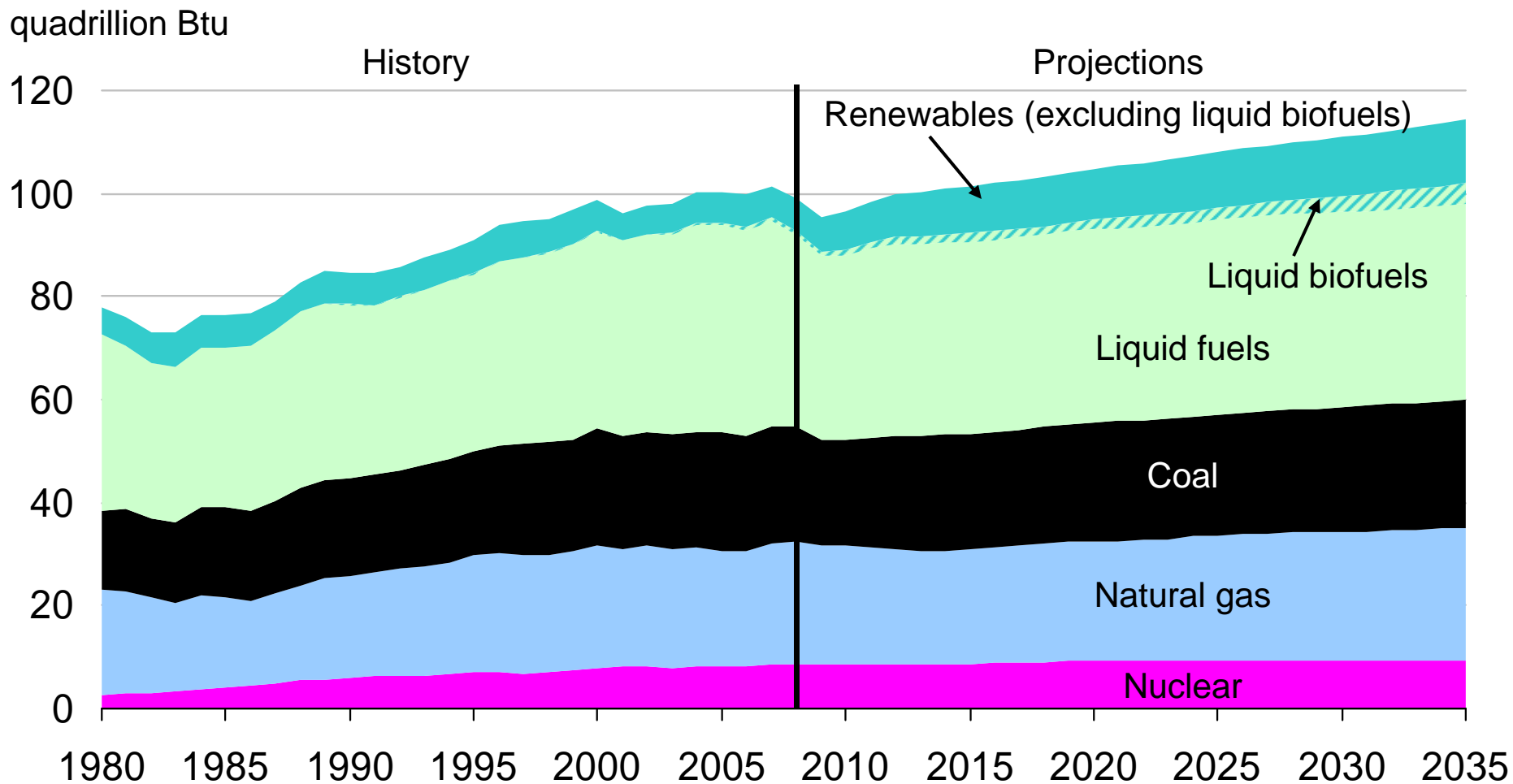
Oil prices in the reference case rise steadily; the full *AEO2010* will include a wide range of prices



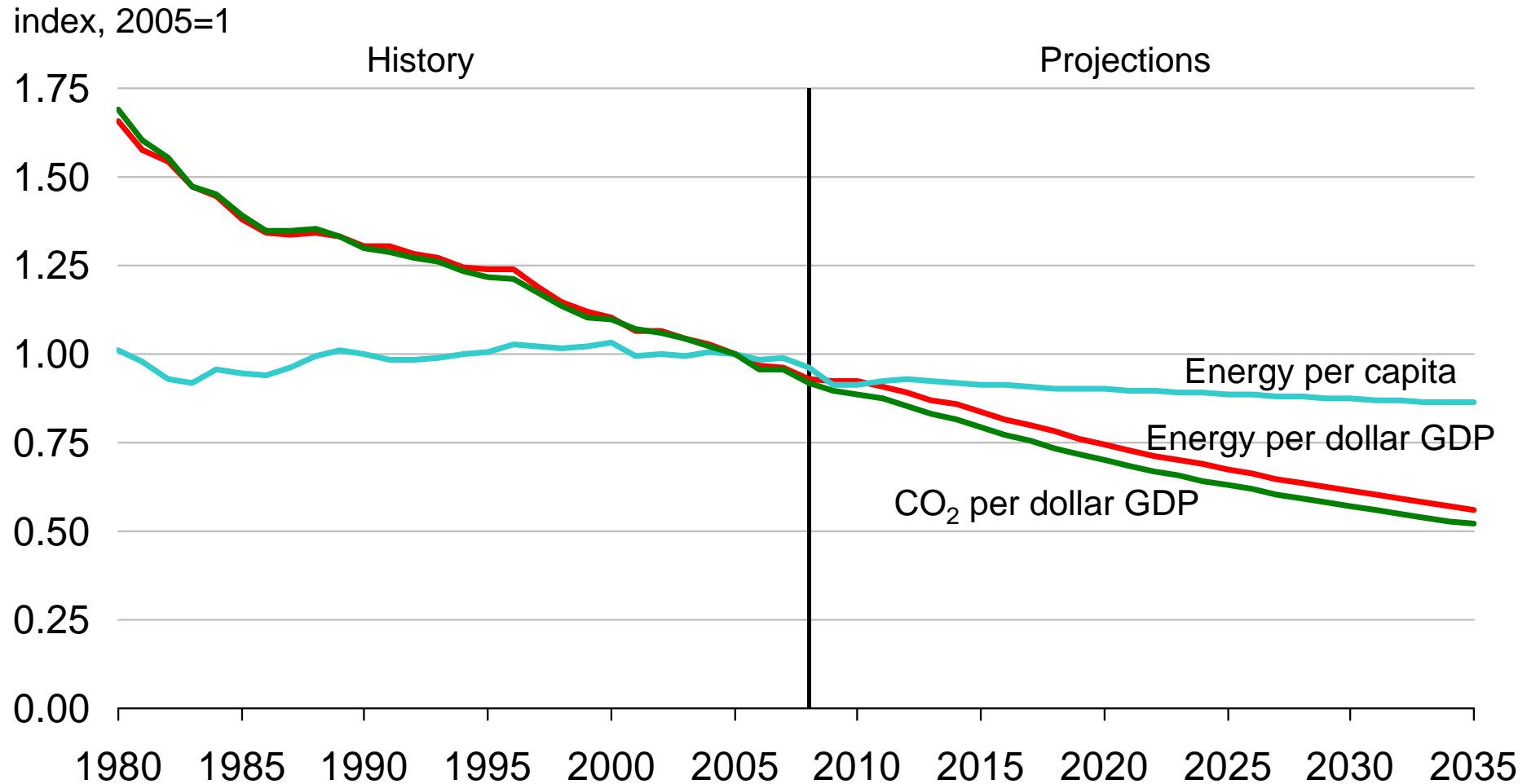
Oil to natural gas price ratio remains high over the projection



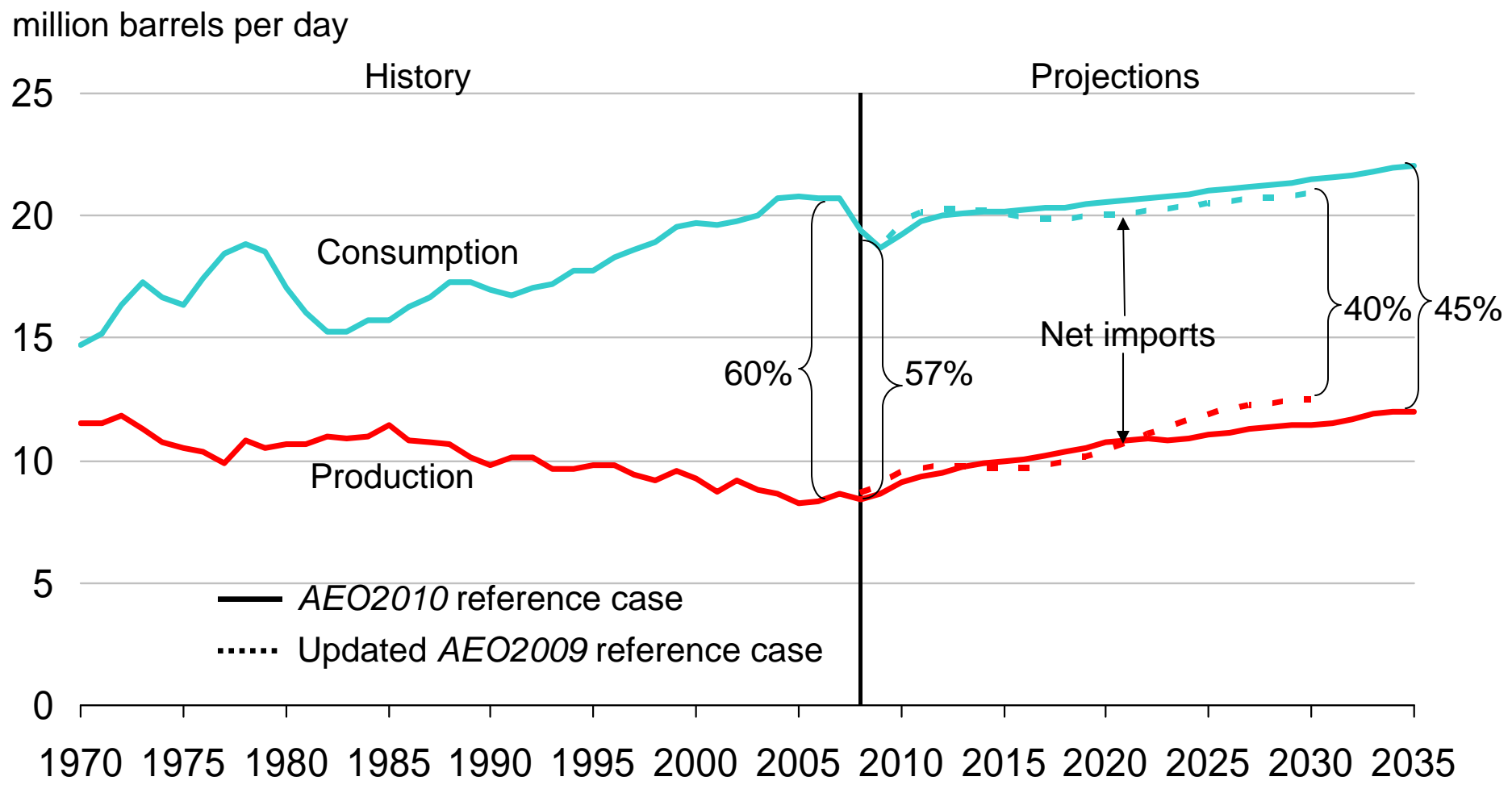
Non-fossil energy use grows rapidly, but fossil fuels still provide 78 percent of total energy use in 2035



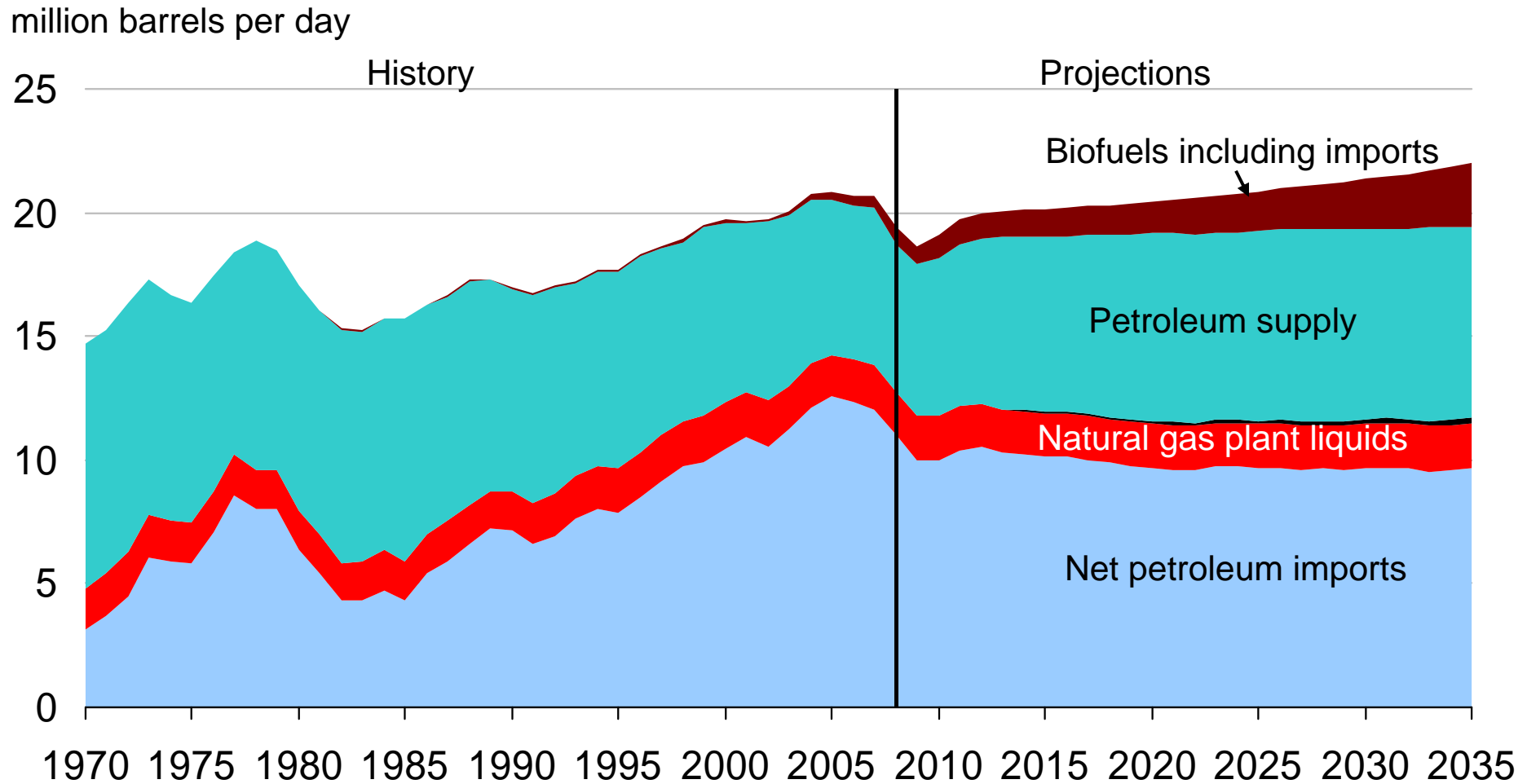
Energy and CO₂ per dollar GDP continue to decline; per capita energy use also declines



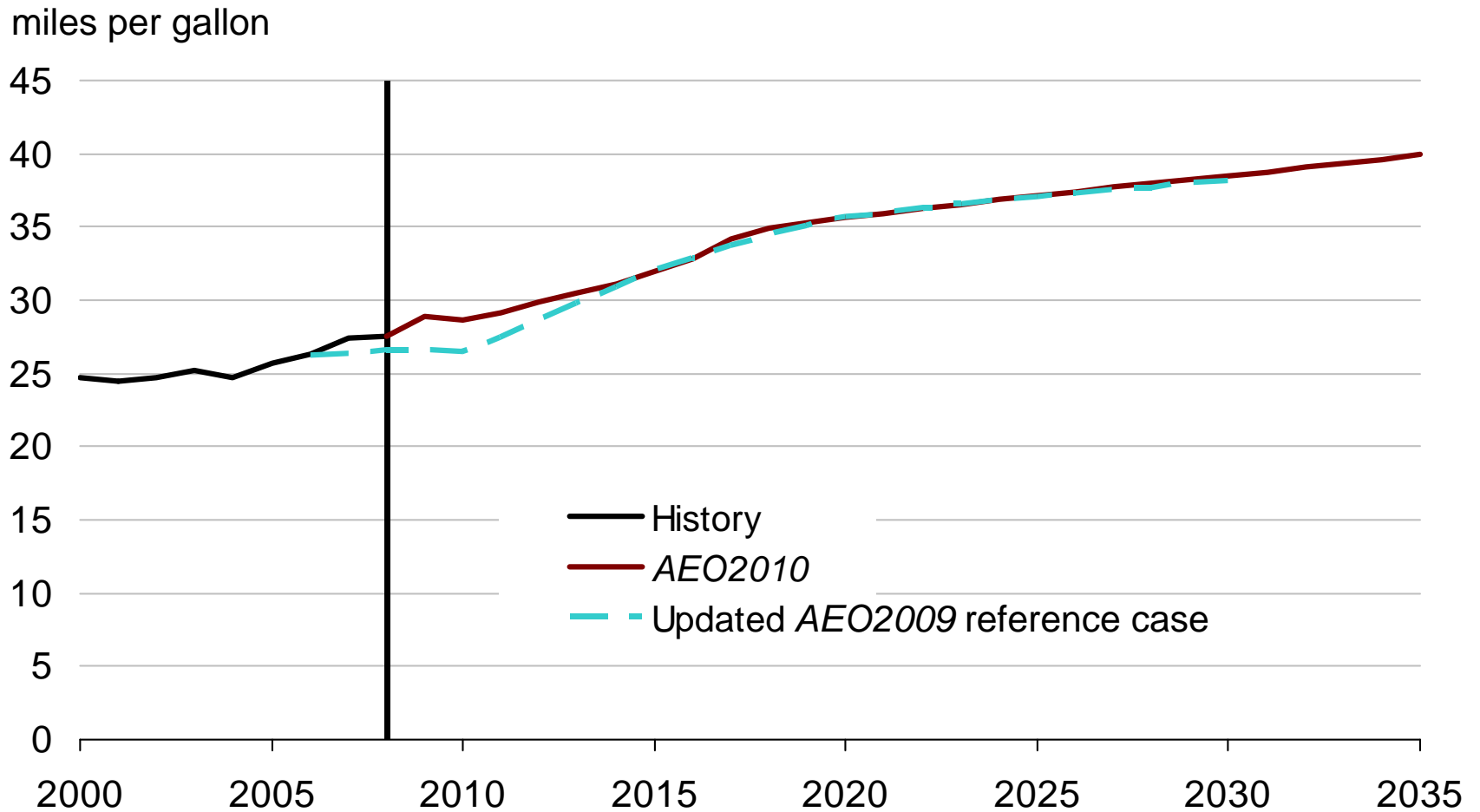
U.S. reliance on imported liquid fuels is reduced by increased domestic production and greater fuel efficiency



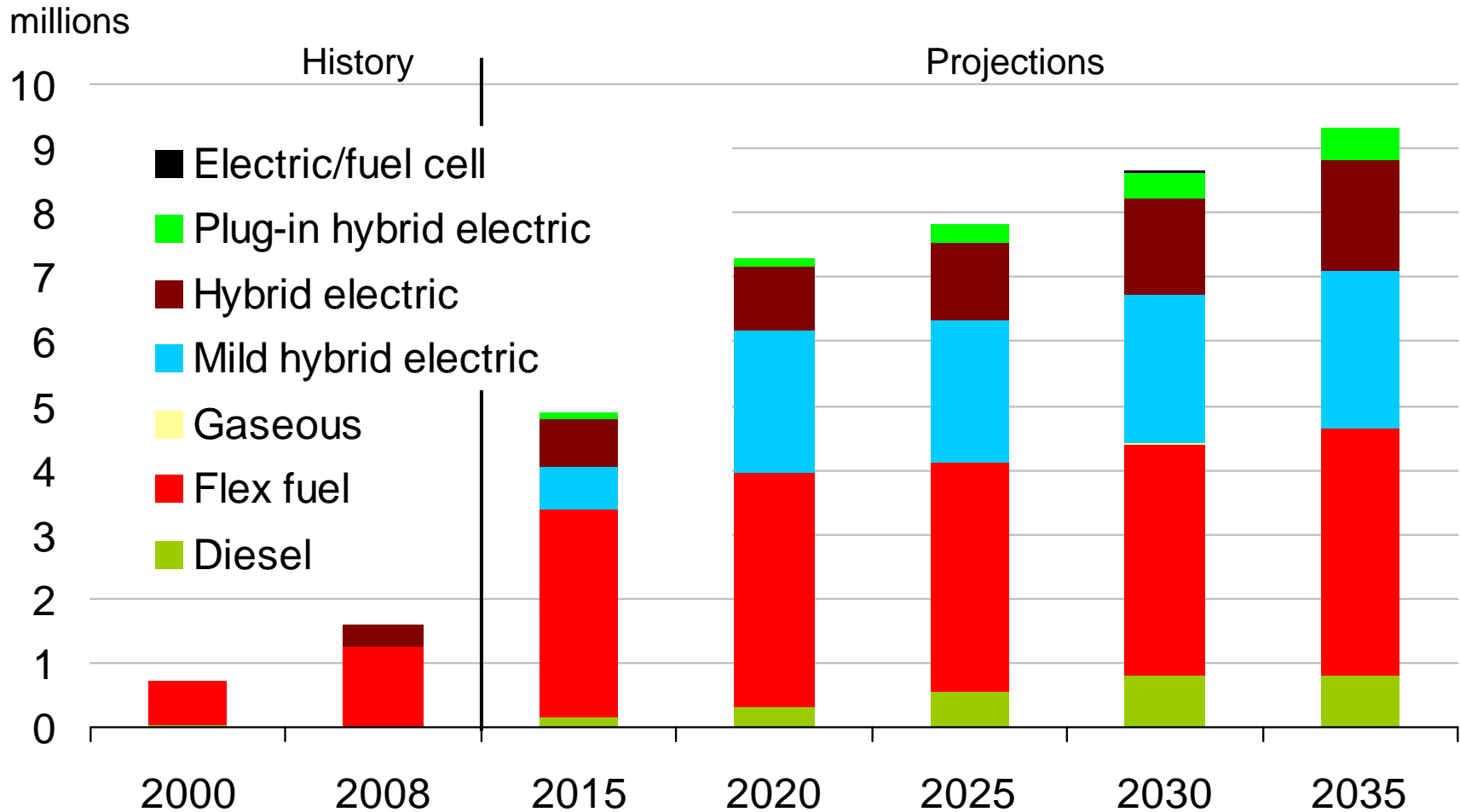
Biofuels meet most of the growth in liquid fuels supply



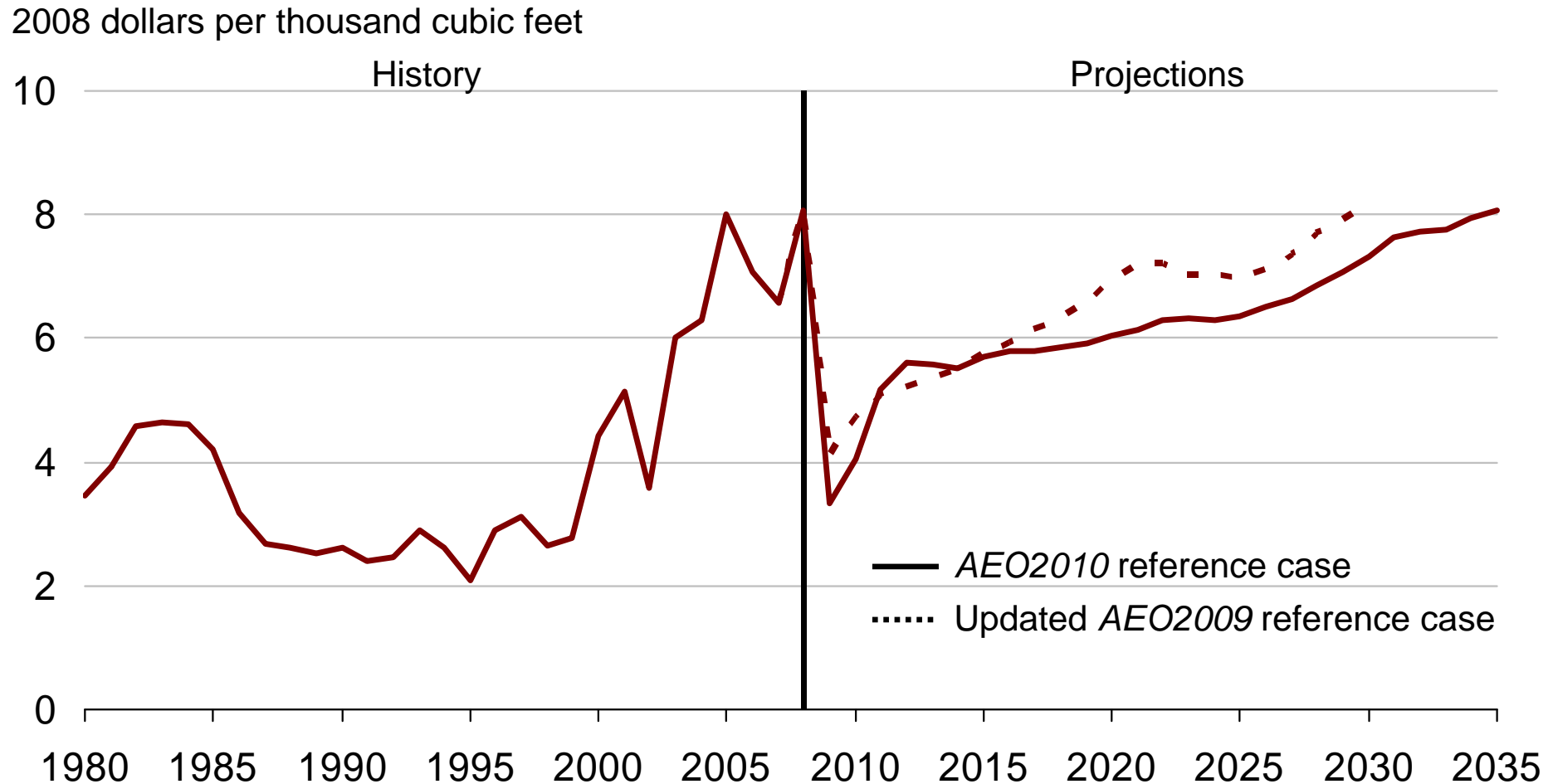
New light duty vehicle efficiency reaches 40 mpg by 2035



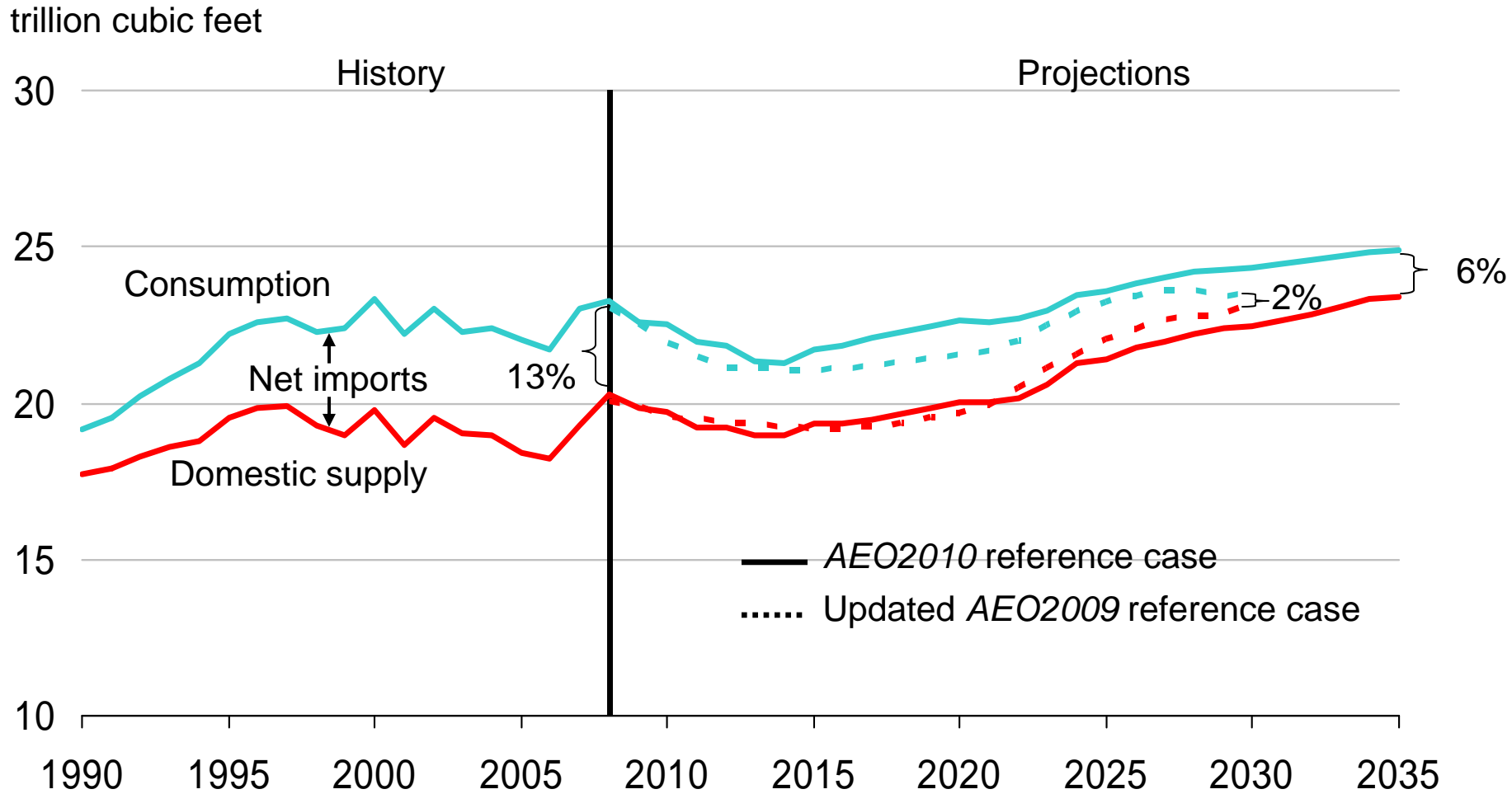
Mild and full hybrid systems dominate new light-duty vehicle sales by 2035



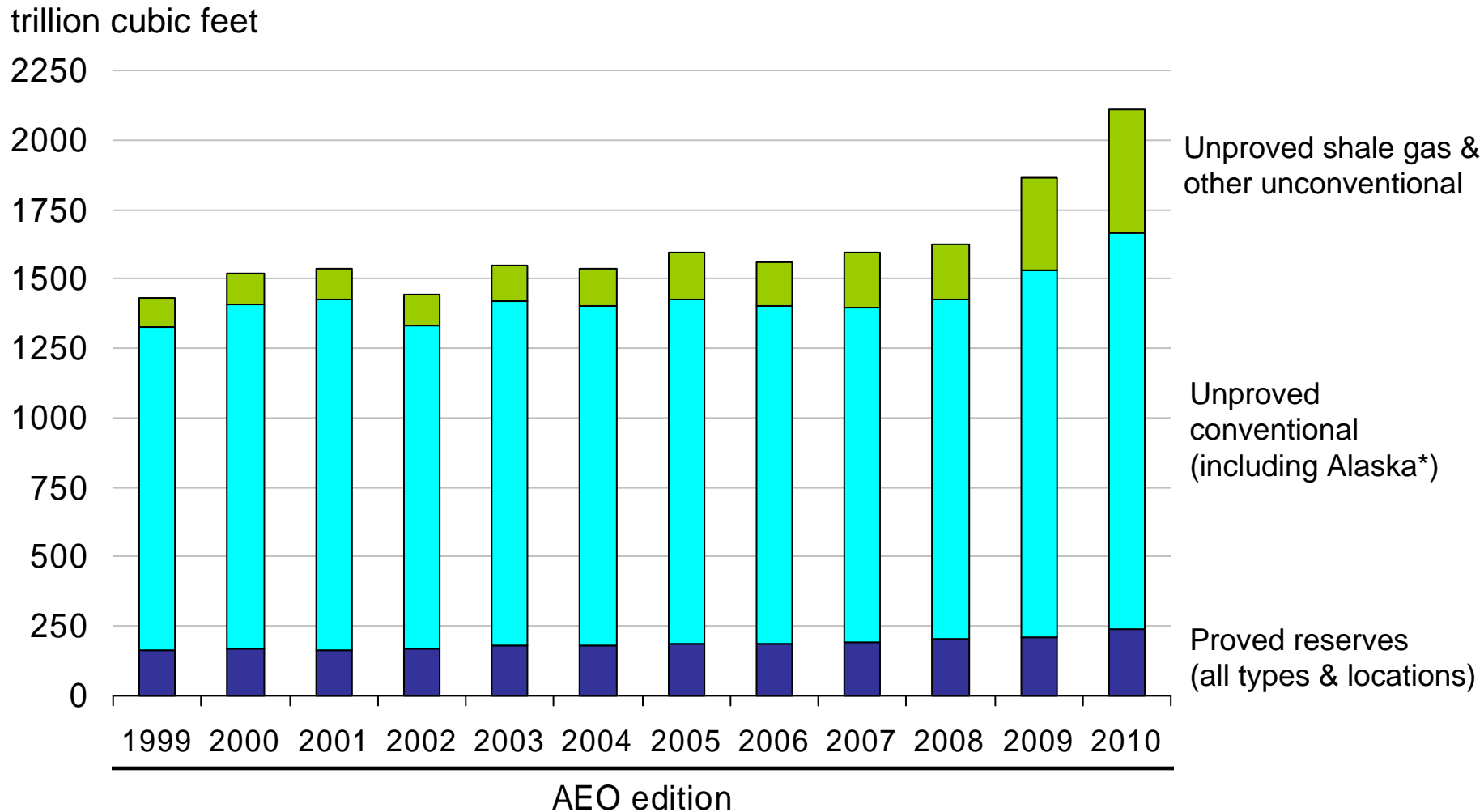
Natural gas wellhead price is projected to rise from low levels experienced during 2008-2009 recession



Import share of natural gas supply declines as domestic supply grows



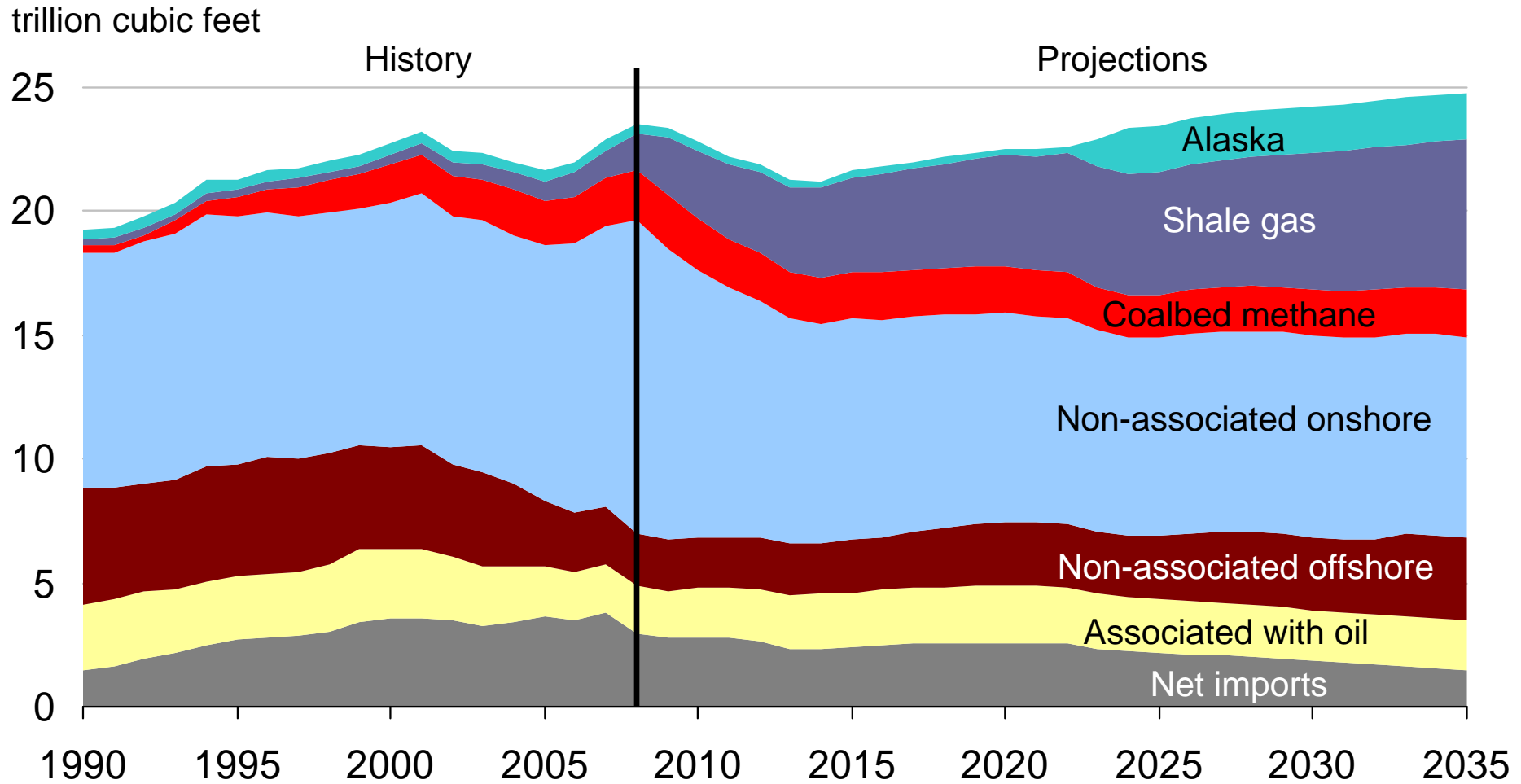
Shale gas has been the primary source of recent growth in U.S. technically recoverable natural gas resources



* Alaska resource estimates prior to *AEO2009* reflect resources from the North Slope that were not included in previously published documentation.

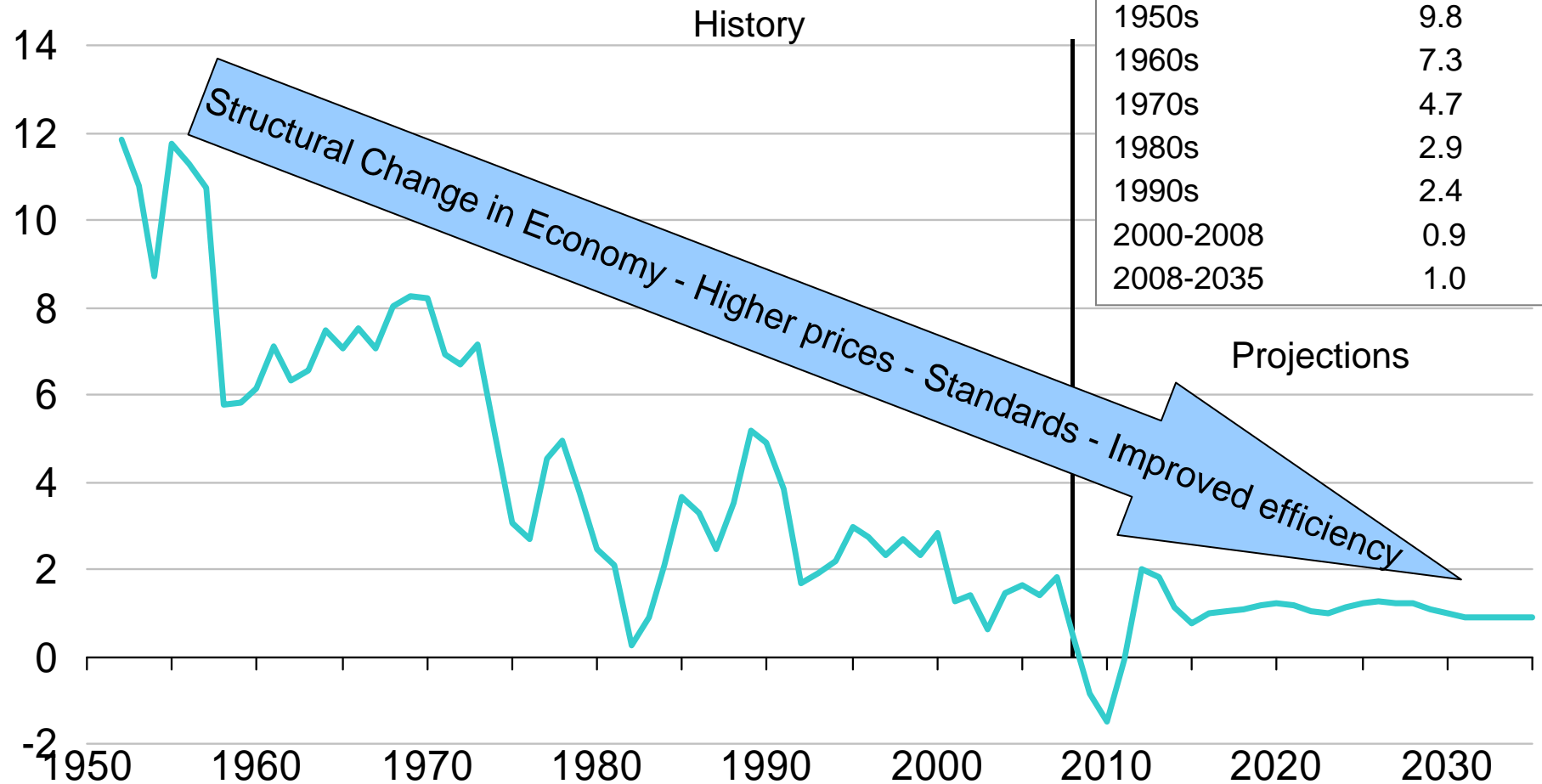


Shale gas and Alaska production offset declines in supply to meet consumption growth and lower import needs



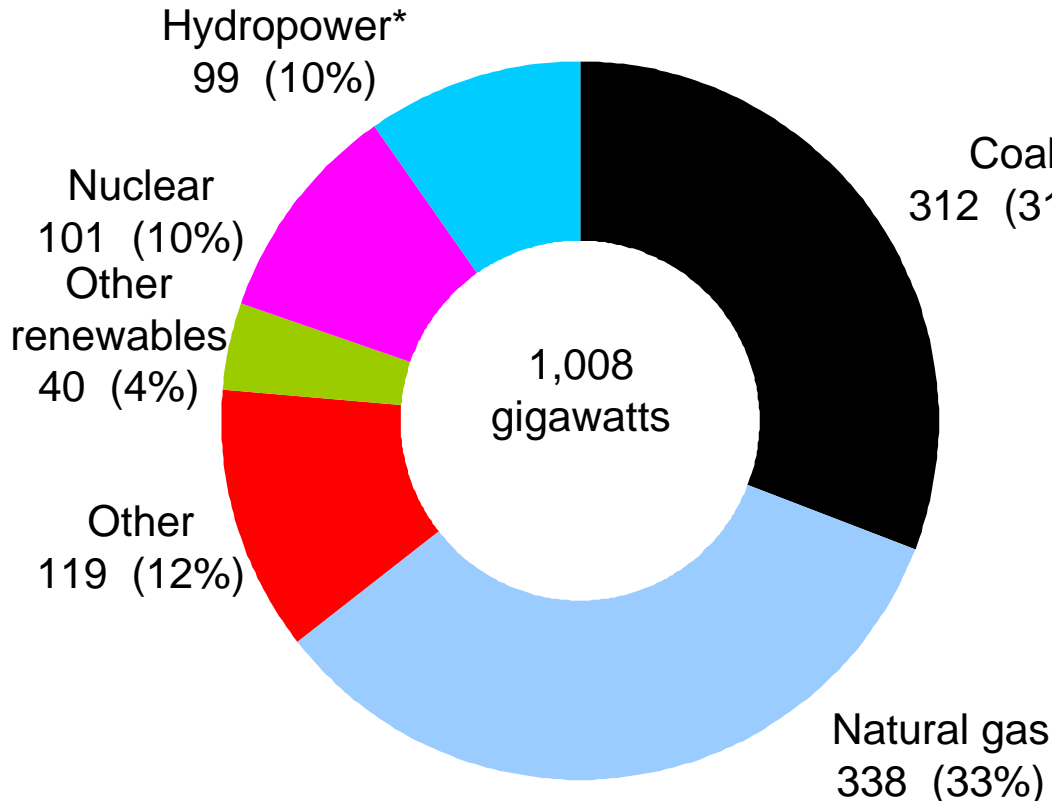
Growth in electricity use continues to slow

3-year rolling average percent growth

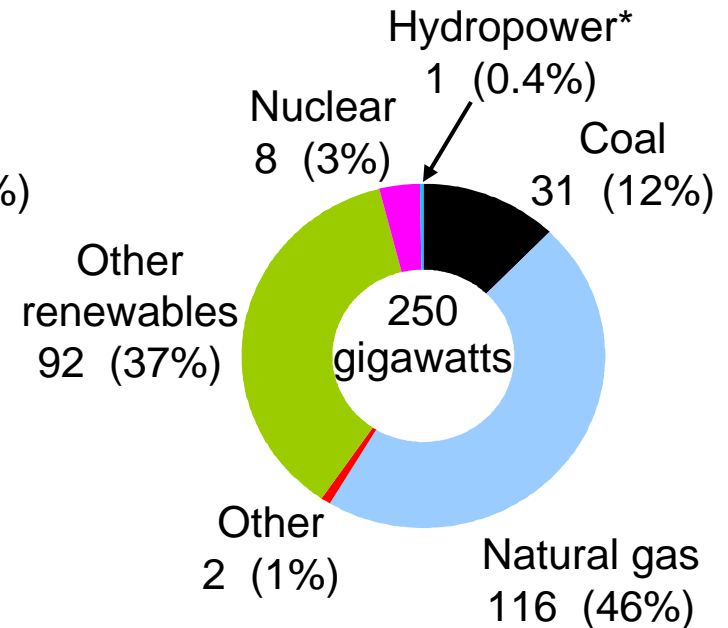


Natural gas and renewables account for the majority of capacity additions from 2008 to 2035

2008 capacity



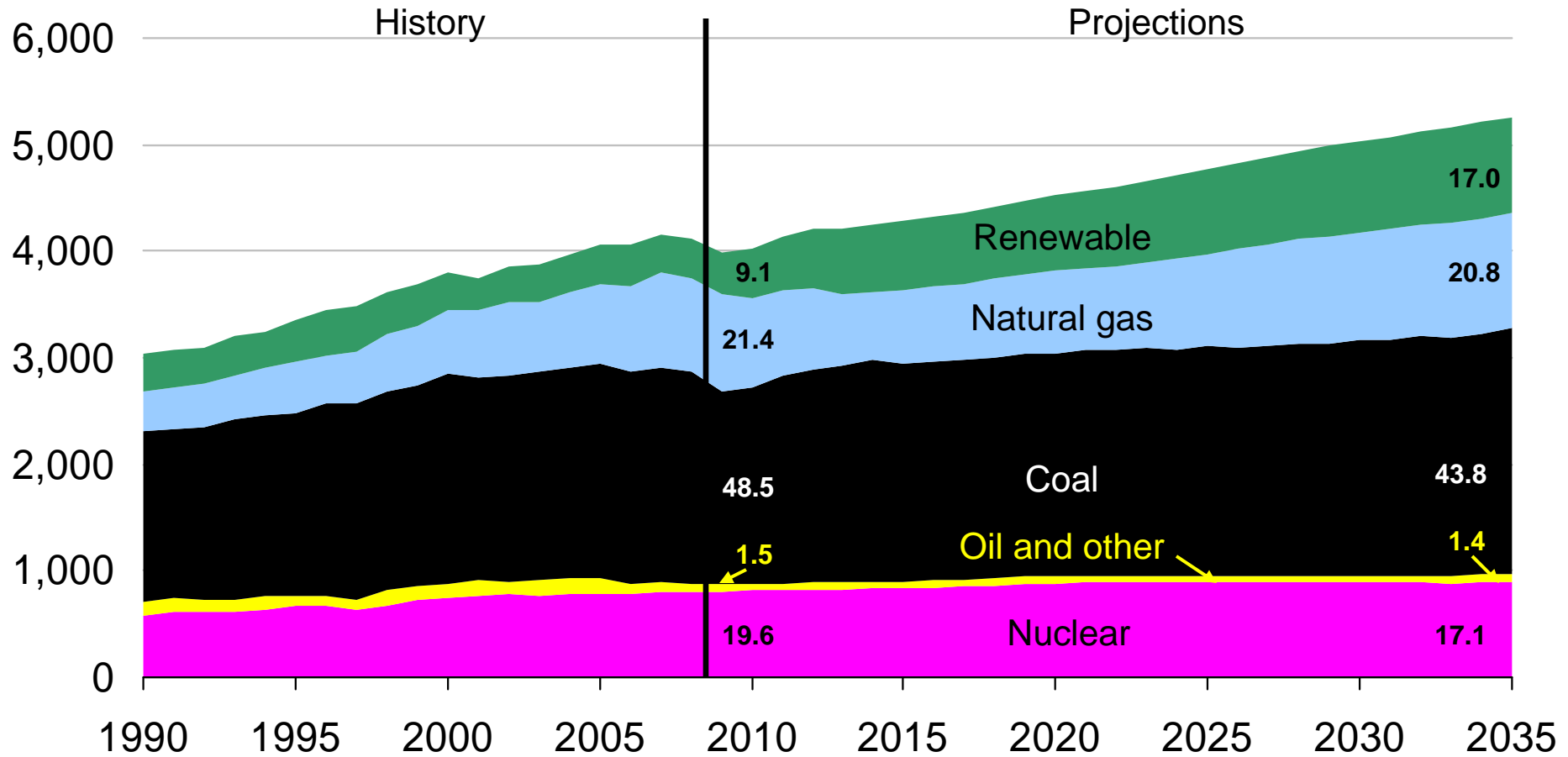
Capacity additions 2008 to 2035



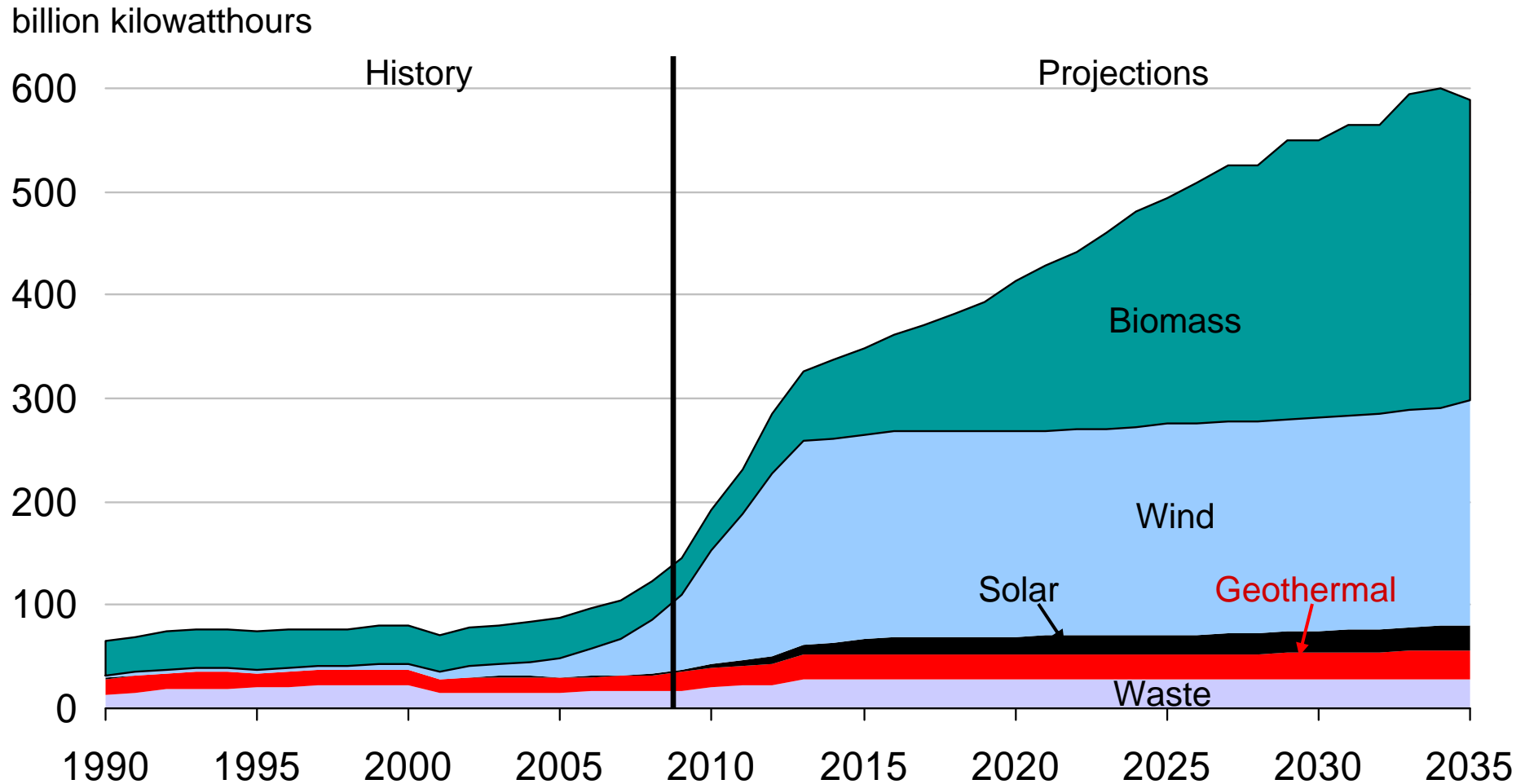
* Includes pumped storage

Renewables gain electricity market share; coal share declines

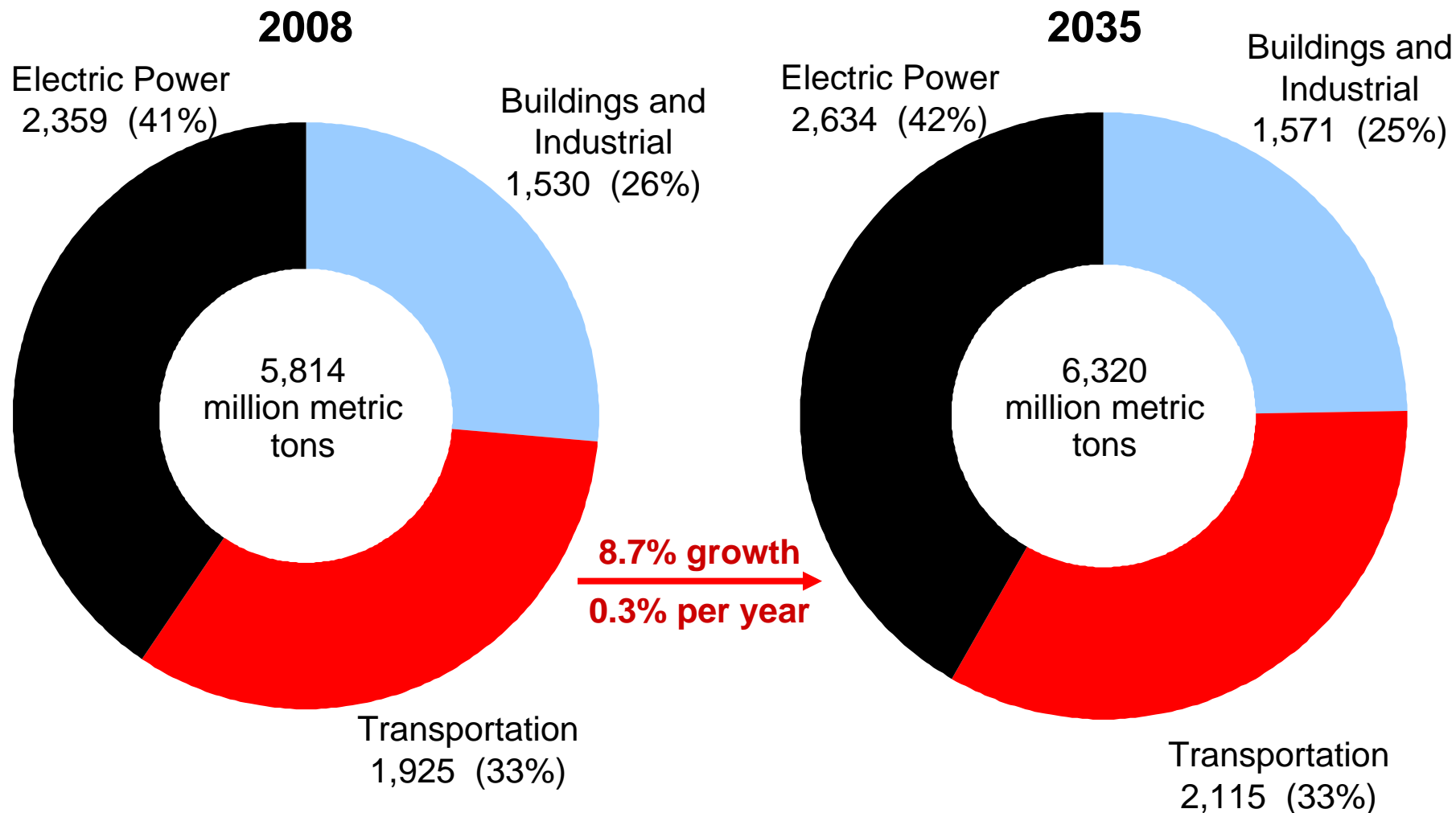
billion kilowatthours and percent shares



Nonhydropower renewable sources meet 41% of total electricity generation growth from 2008 to 2035



Assuming no new policies, growth in energy-related CO₂ is driven by electricity and transportation fuel use



For more information

U.S. Energy Information Administration home page www.eia.gov

Short-Term Energy Outlook www.eia.gov/emeu/steo/pub/contents.html

Annual Energy Outlook www.eia.gov/oiaf/aeo/index.html

International Energy Outlook www.eia.gov/oiaf/ieo/index.html

Monthly Energy Review www.eia.gov/emeu/mer/contents.html

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