

Impact of Fuel Mix Change on Markets

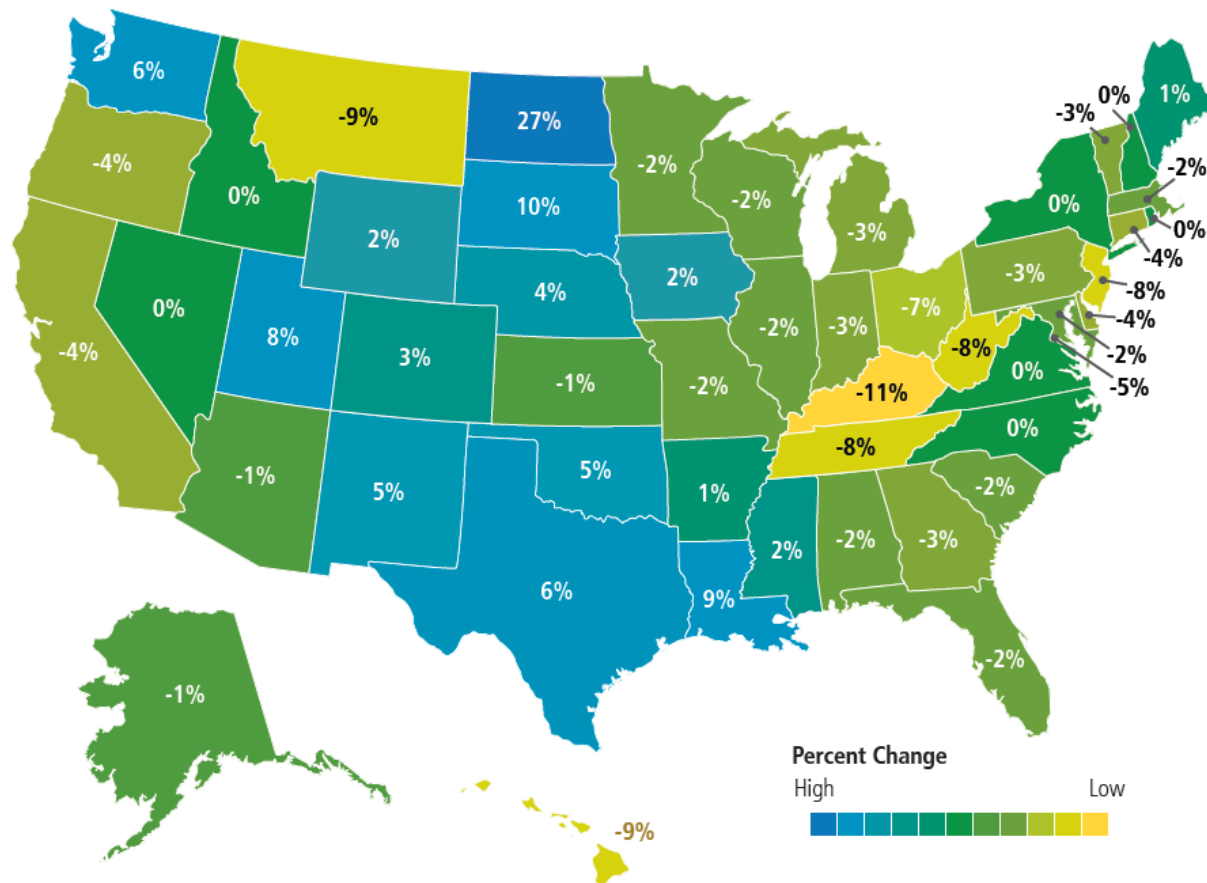


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May 27, 2015
Istanbul, Turkey

Consumer Demand: A Downward Trend

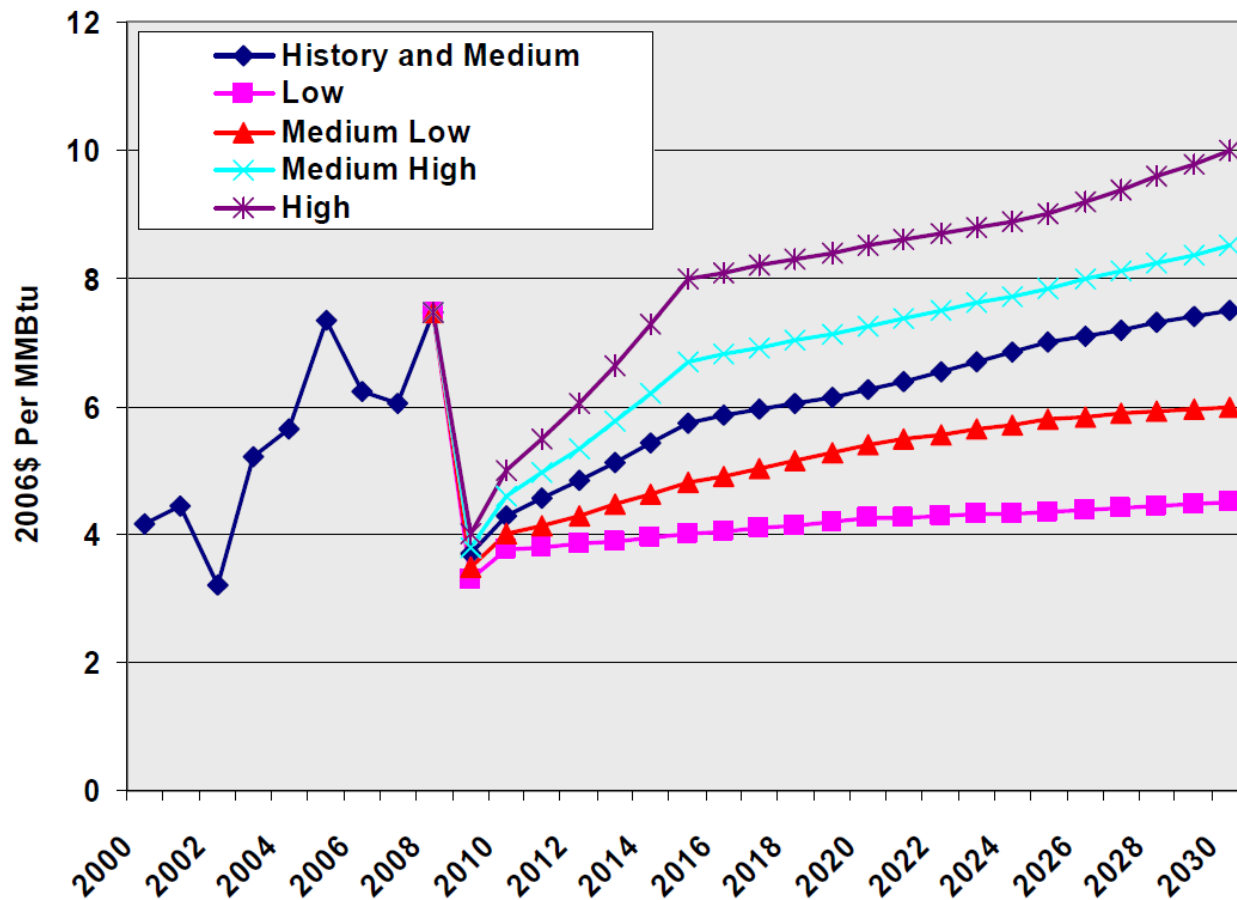
Figure 1-3. Percent Change in Retail Electricity Sales (kilowatt-hours), 2008–2013⁵⁵



There is a considerable variation in electricity retail sales among states and by region, ranging from an increase of 27 percent in North Dakota to a decrease of 11 percent in Kentucky; these variations are due in part to changes in load growth.

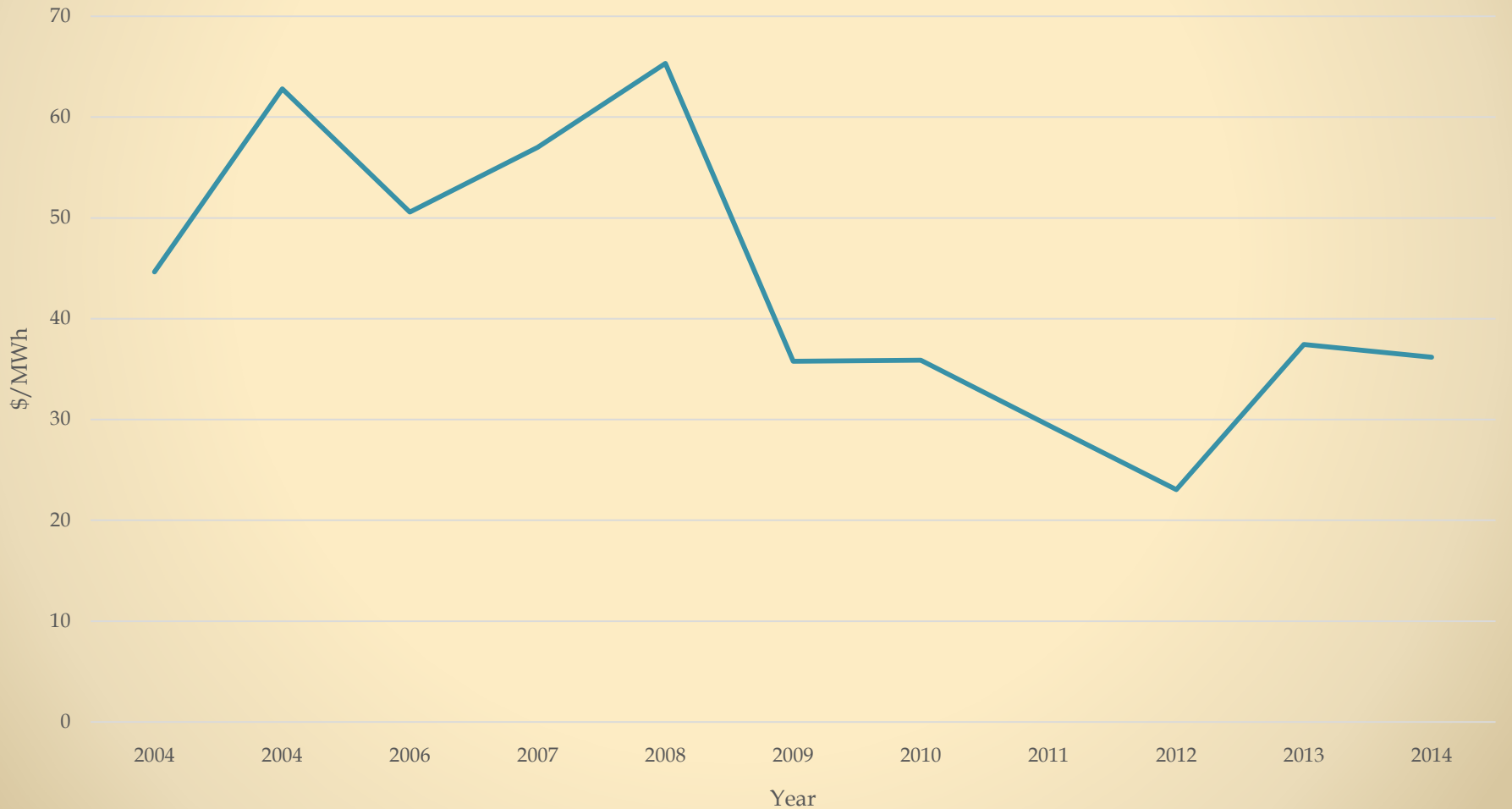
Meanwhile, Natural Gas Prices Plummet...

Figure 2-2: U.S. Wellhead Natural Gas Prices: History and Forecast Range



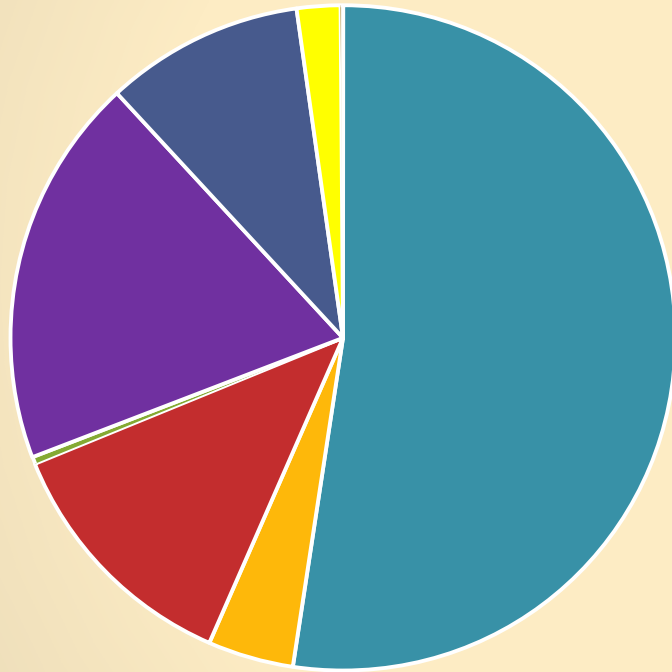
U.S. Wholesale Electricity Prices

Mid-C Peak Annual Average Electricity Prices

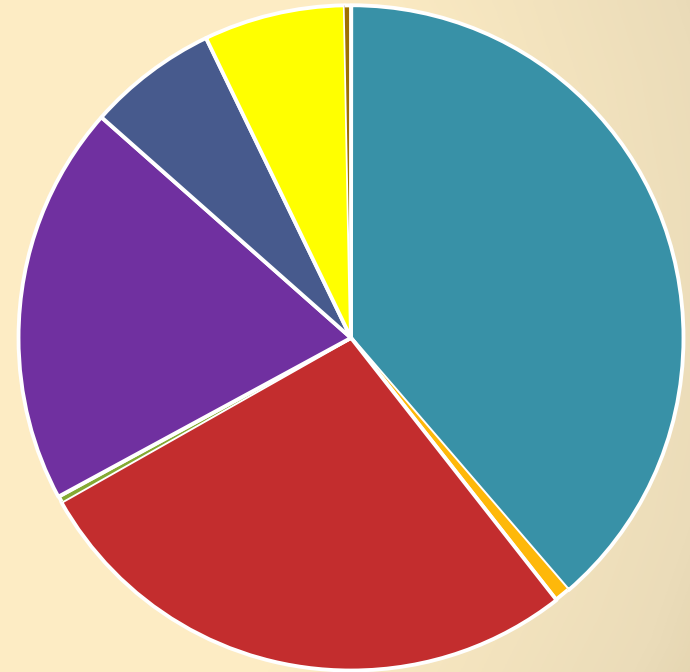


Electricity Generation in the United States 1990 Compared to 2014

1990 US Electricity Generation



2014 US Electricity Generation



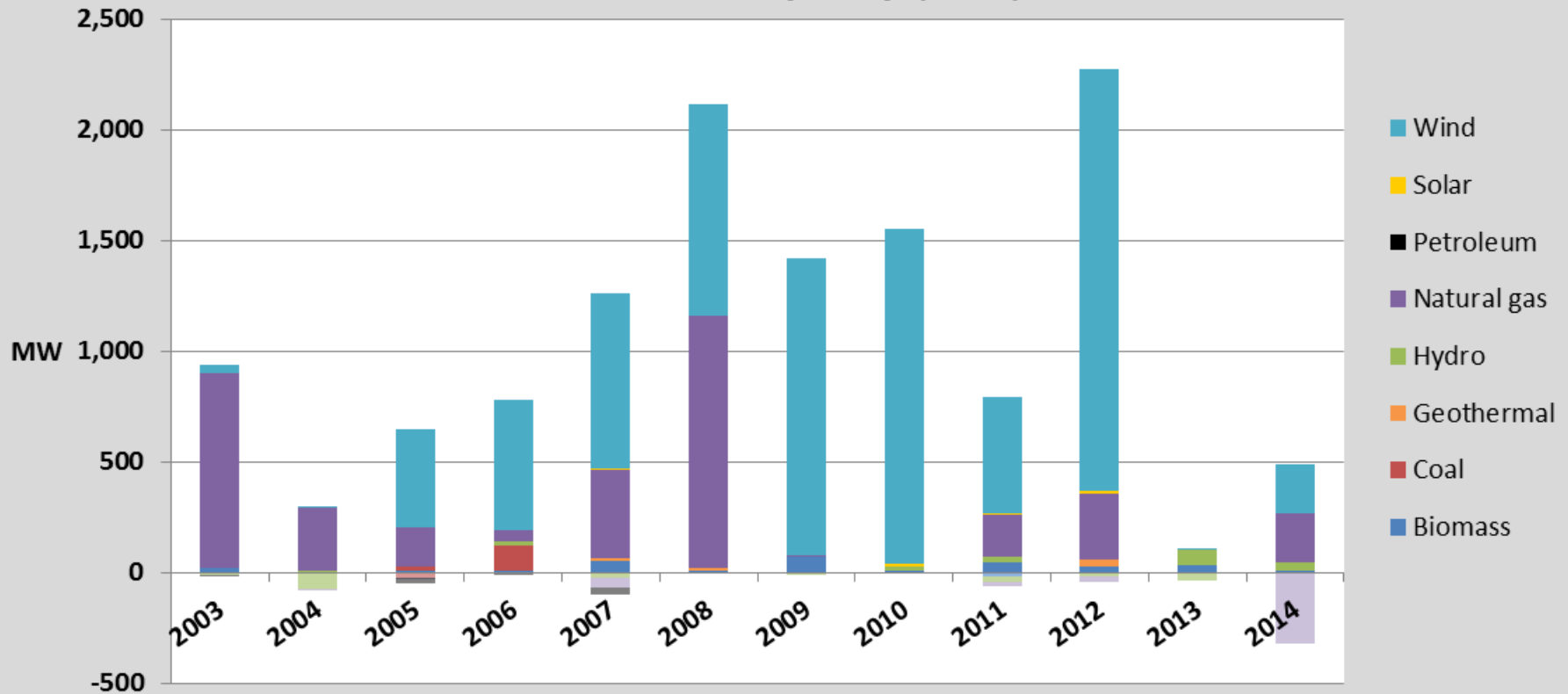
- Coal
- Natural Gas
- Nuclear
- Renewable Sources Excluding Hydroelectric
- Petroleum
- Other Gases
- Hydroelectric Conventional
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Declining Demand...

Increasing Supply?!

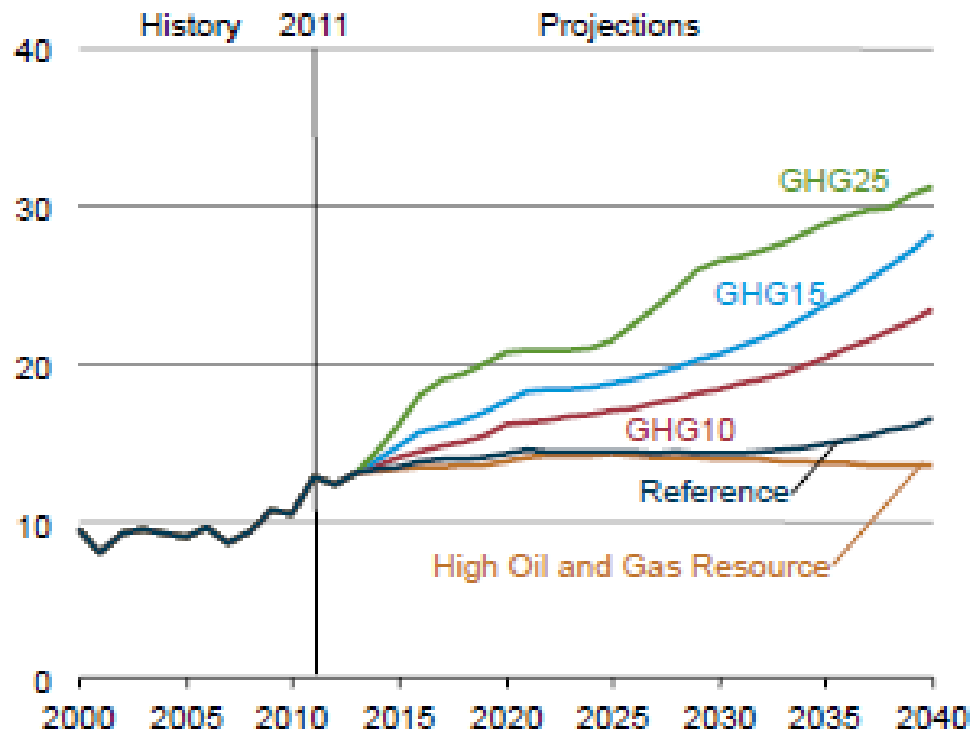
**Pacific Northwest Generating Additions & Retirements
Installed Capacity (MW)**



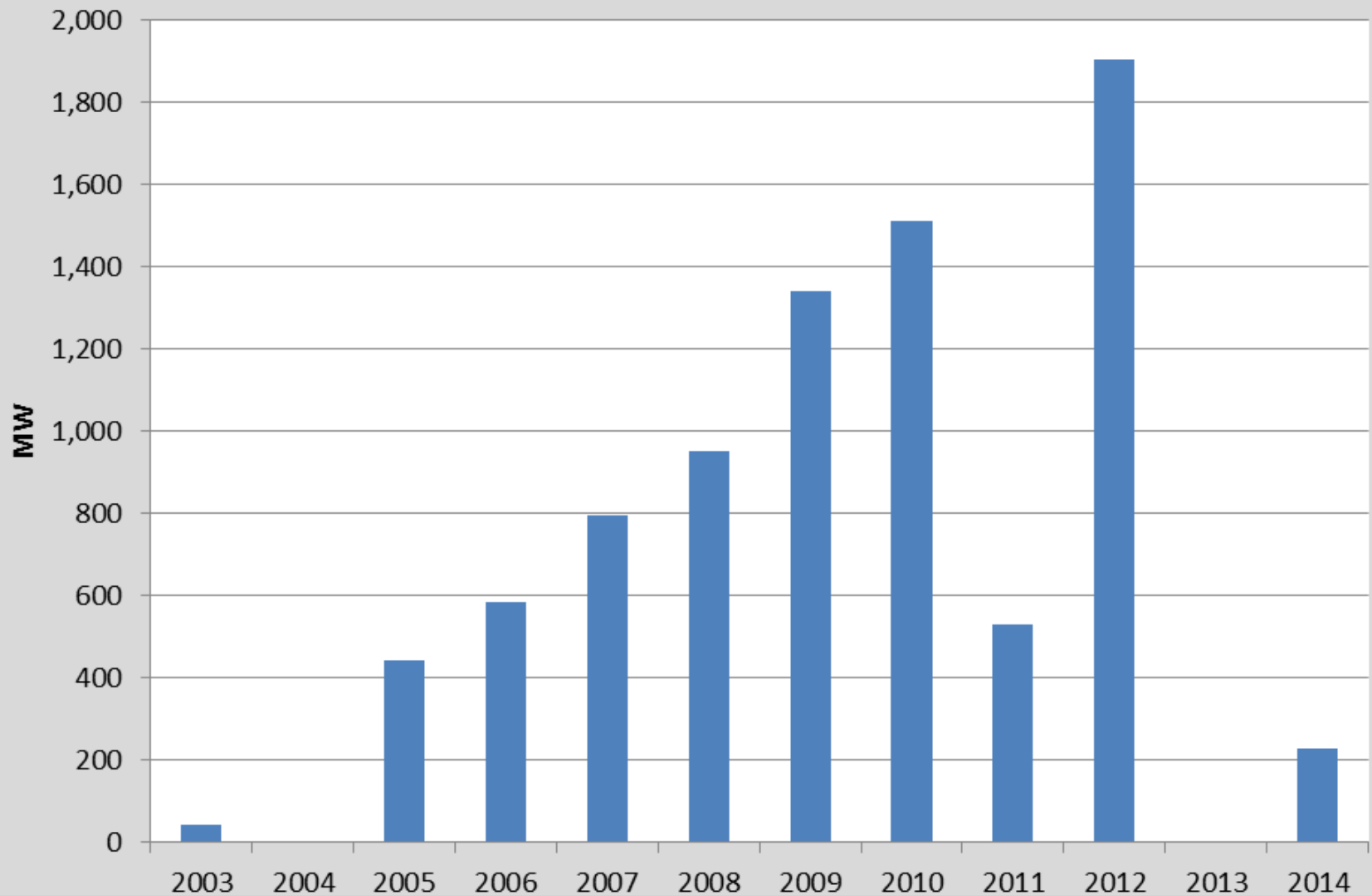
* Projects considered additions if in service or construction is near complete.
Retirements do not include plants that have been idled for potential future use.

Renewable Energy Percentage of Total U.S. Electricity with Carbon Prices

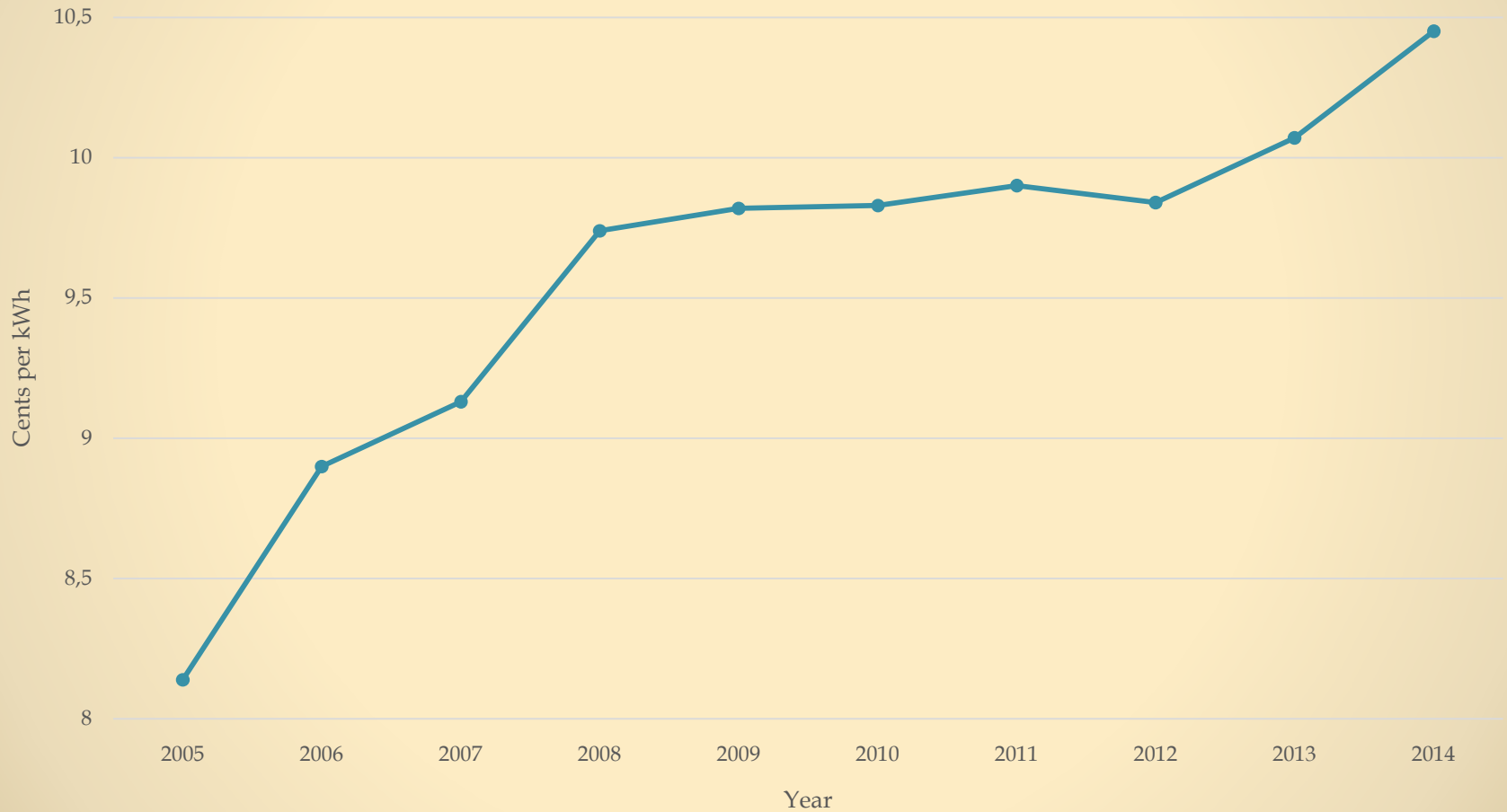
Figure 8. Renewable energy share of U.S. electricity generation in five cases, 2000-2040 (percent)



Pacific Northwest Wind Additions Installed Capacity (MW)



U.S. Average Retail Price of Electricity to Consumers



Questions?



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