

The Future of Energy

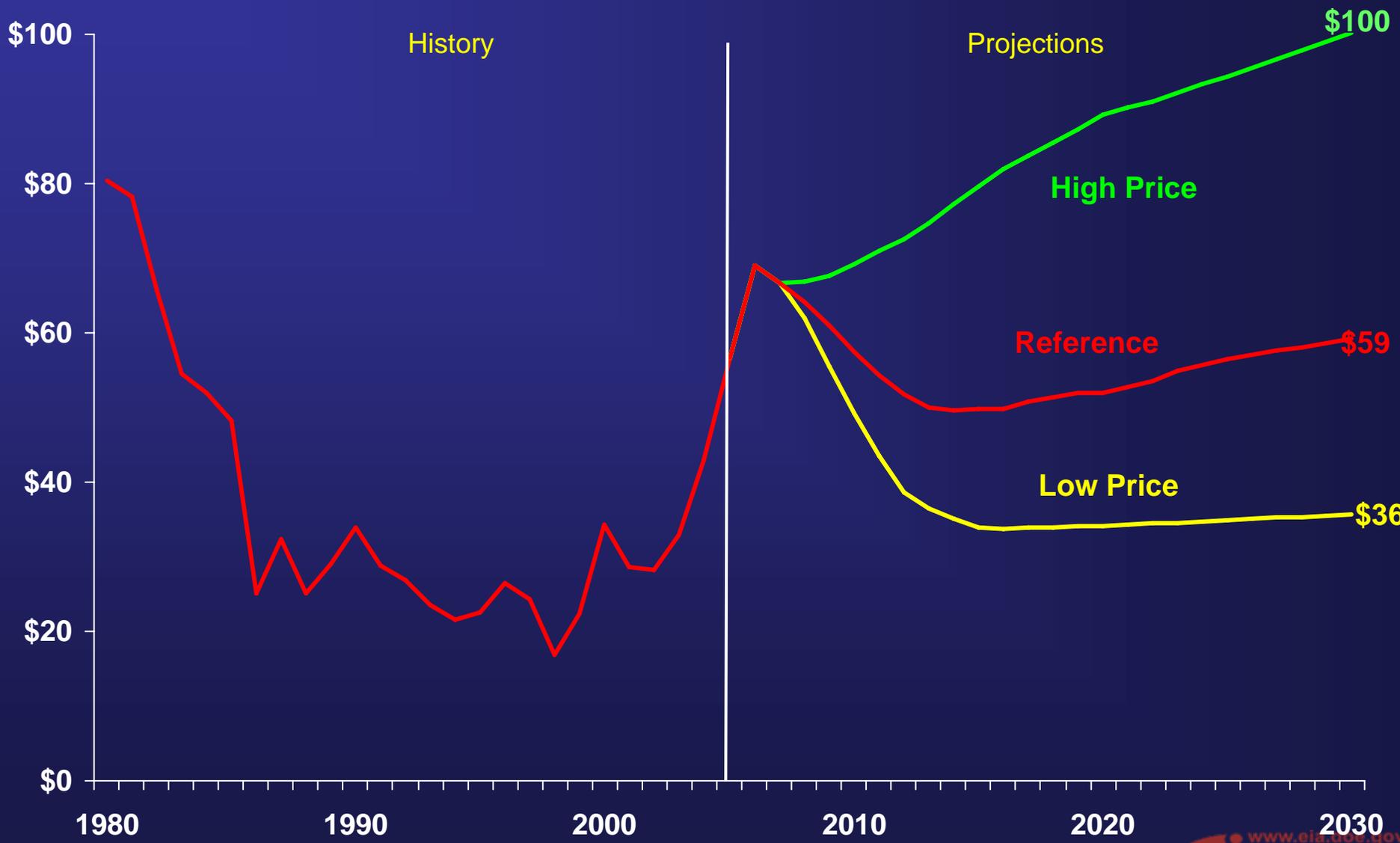
**Guy Caruso, Administrator
Energy Information Administration**

**Yale Energy Conference
November 9, 2007
New Haven, CT**

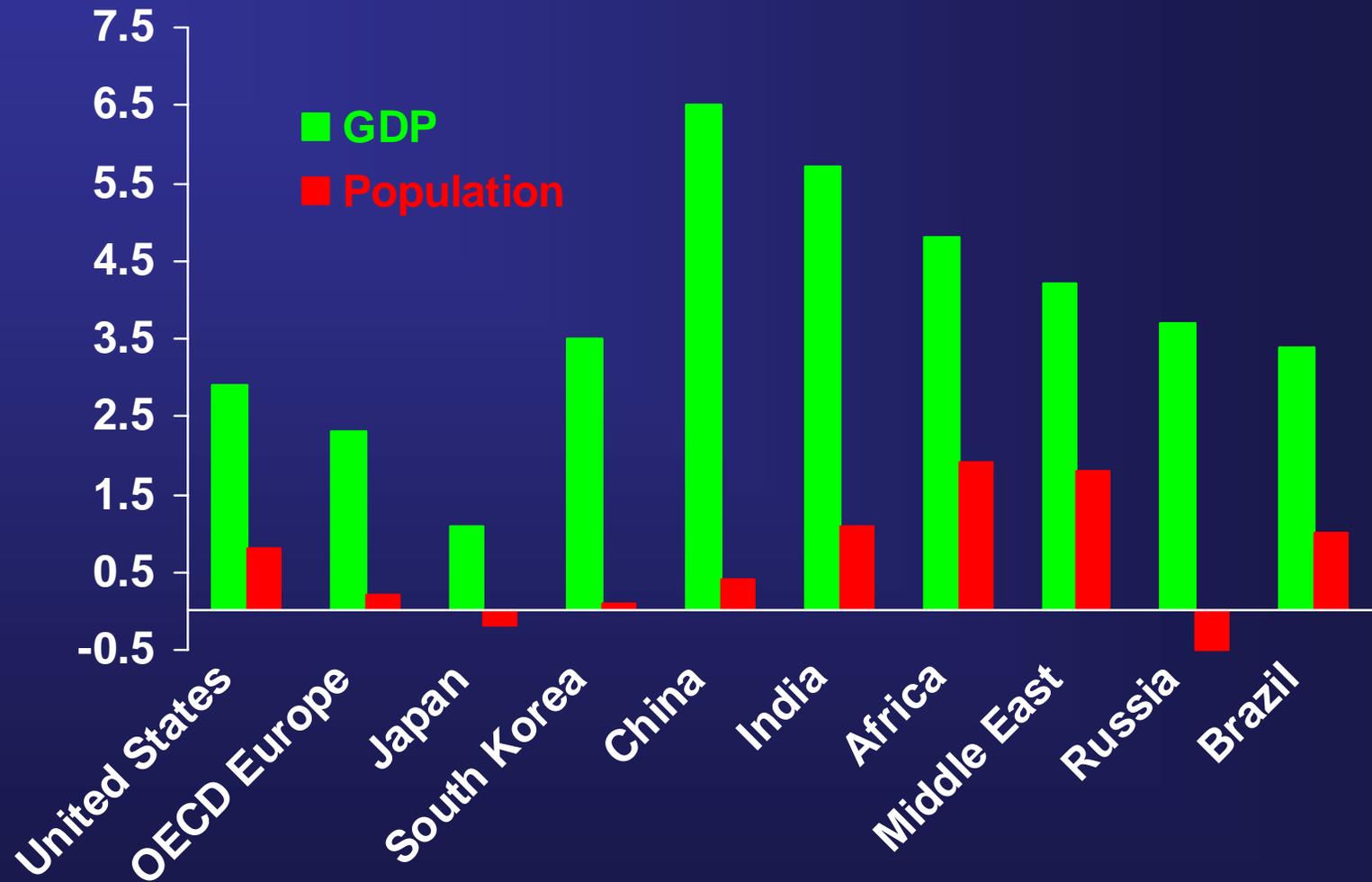
The *International Energy Outlook 2007* Projects...

- Worldwide marketed energy consumption is projected to grow by 57 percent between 2004 and 2030. The highest growth is projected for the developing countries.
- Persian Gulf producers provide 55 percent, or 14 million barrels per day, of the total increase in the world's conventional liquids supply over the forecast.
- World unconventional production (including biofuels, coal-to-liquids, and gas-to-liquids) accounts for 9 percent of the world liquids supply in 2030.
- Coal is the world's fastest-growing fuel type in the outlook, increasing at an average annual rate of 2.2 percent. With oil and natural gas prices remaining high, coal is an attractive fuel for nations with access to ample resources, like China, India, and the United States, which account for 86 percent of the projected world coal demand increase.
- Higher fossil fuel prices, energy security concerns, improved reactor designs, and environmental considerations are expected to improve the prospects for nuclear power generation, which is 14 percent higher in 2030 than in last year's outlook.
- Energy-related carbon dioxide emissions are projected to rise from 26.9 billion metric tons in 2004 to 33.9 billion metric tons in 2015 and 42.9 billion metric tons in 2030.

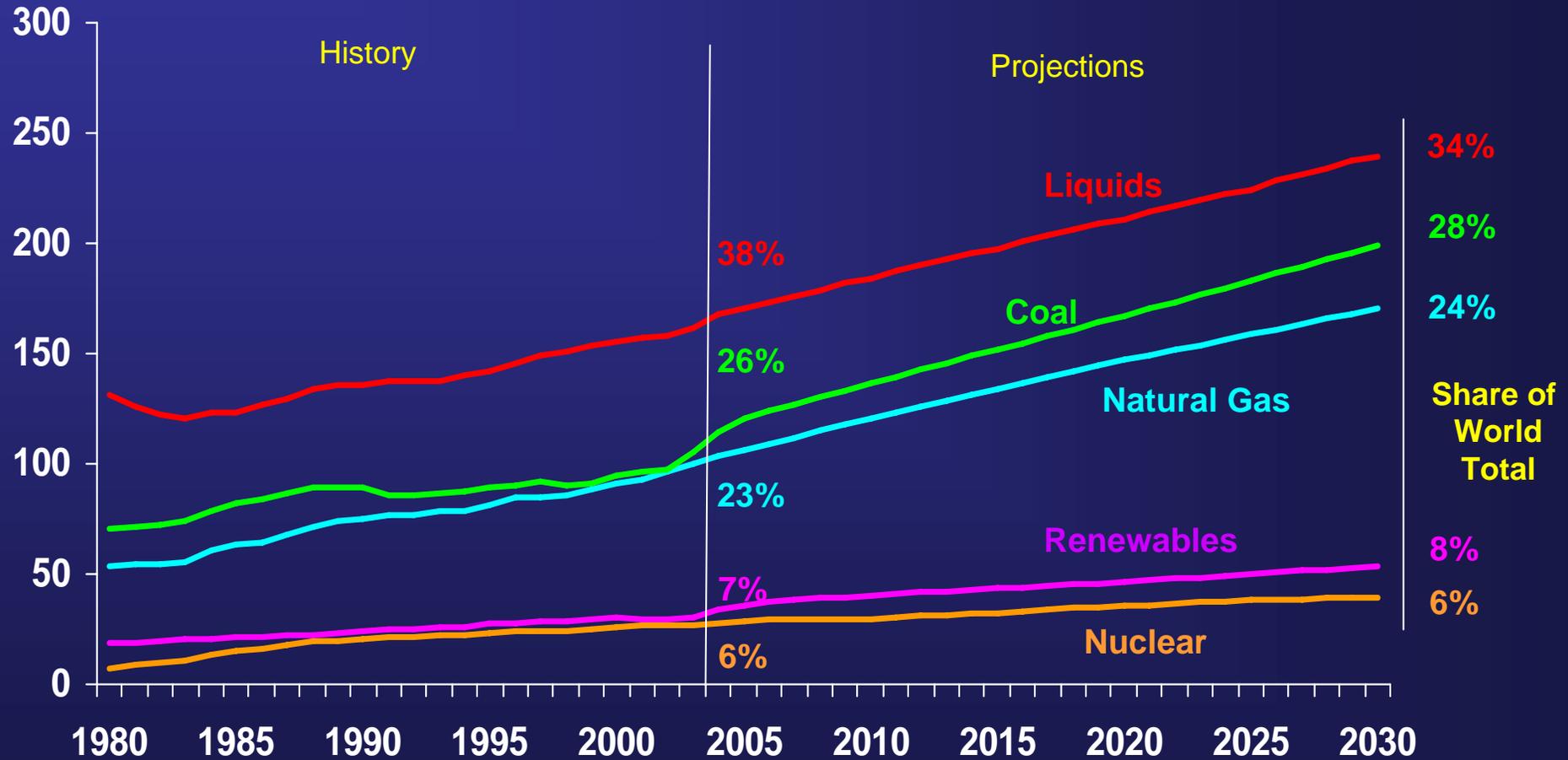
World Oil Price, 1980-2030 (2005 dollars per barrel)



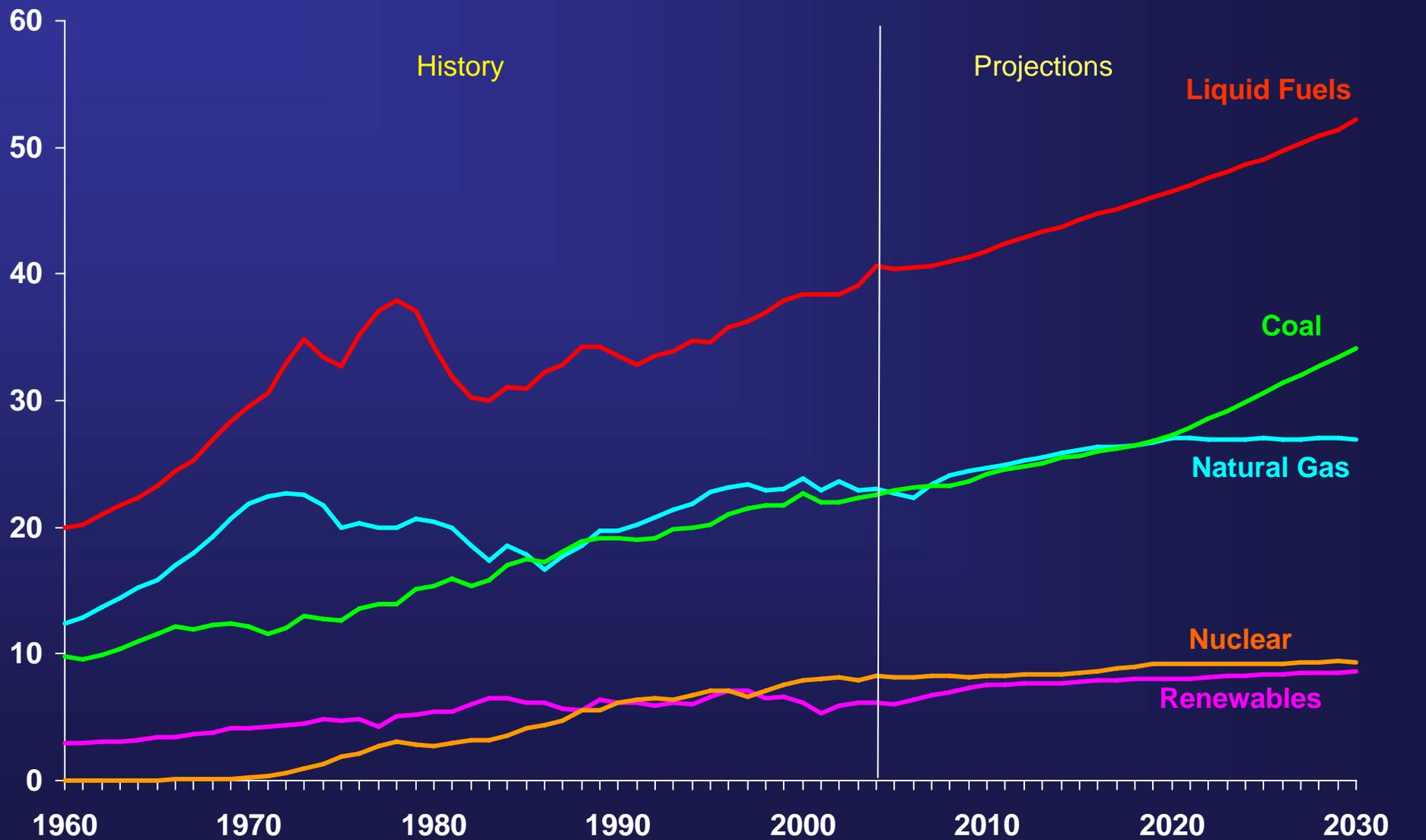
Average Annual GDP and Population Growth for Selected Regions, 2004-2030 (percent)



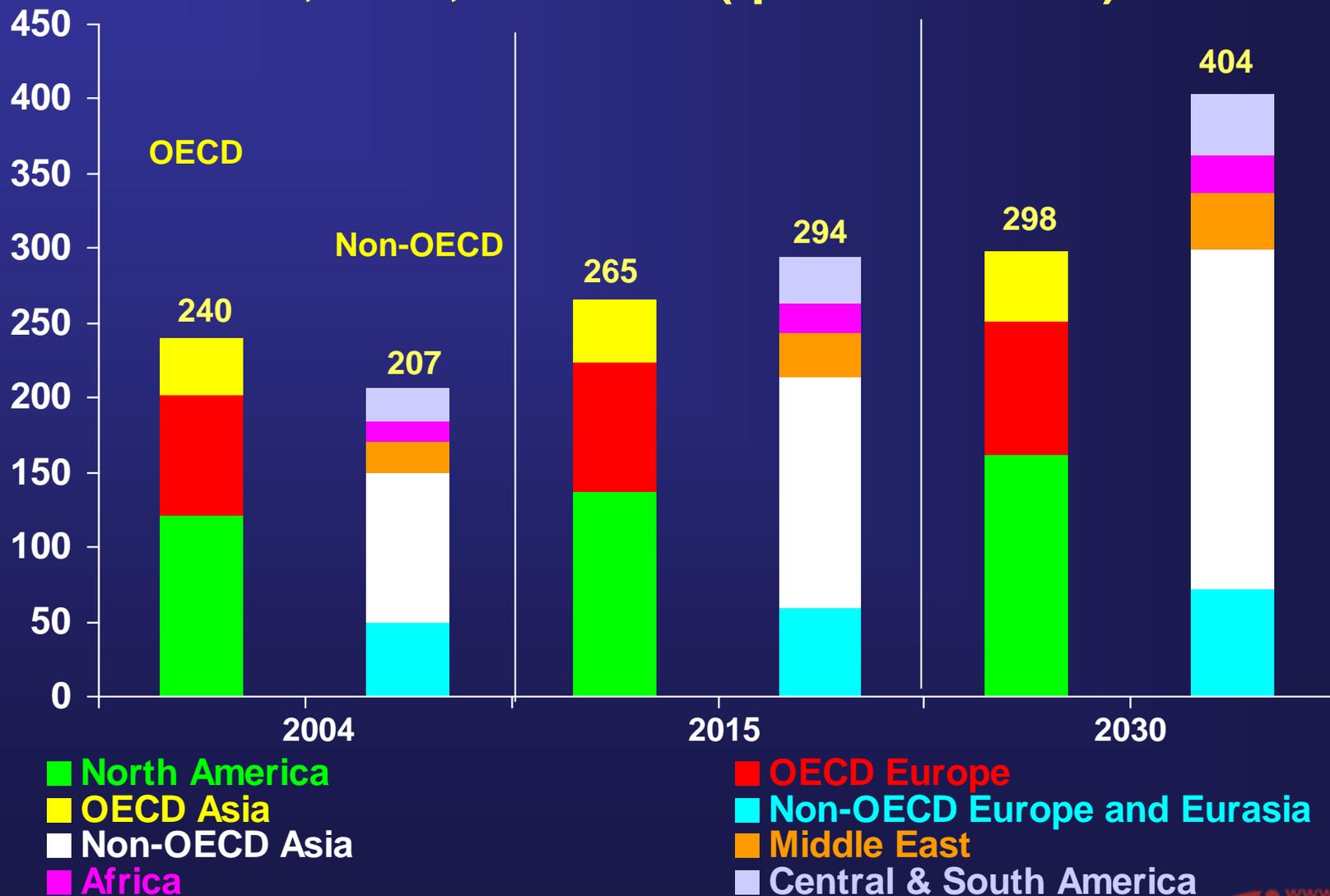
World Marketed Energy Consumption, 1980-2030 (quadrillion Btu)



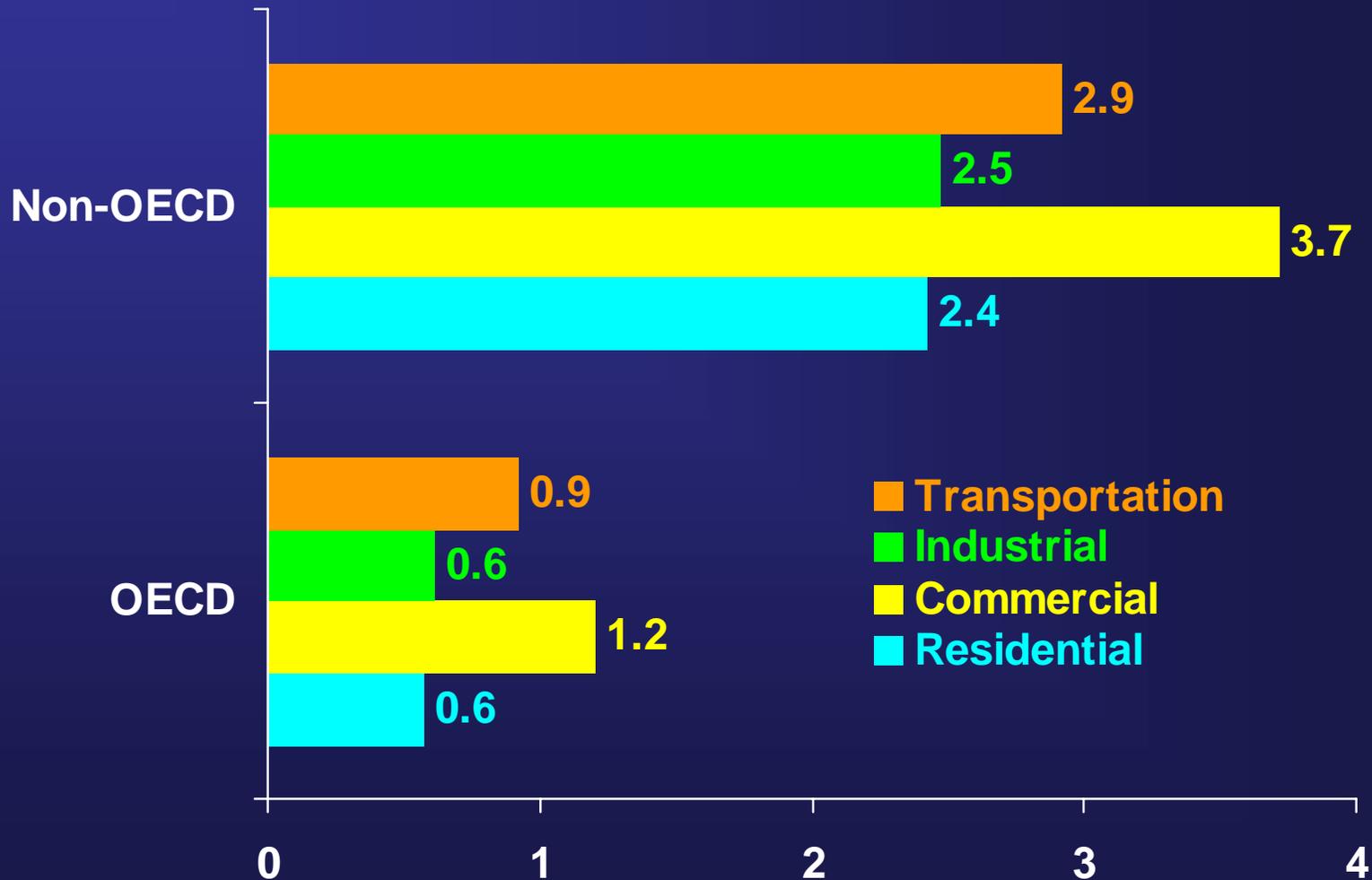
U.S. Primary Energy Consumption by Fuel, 1960-2030 (quadrillion Btu)



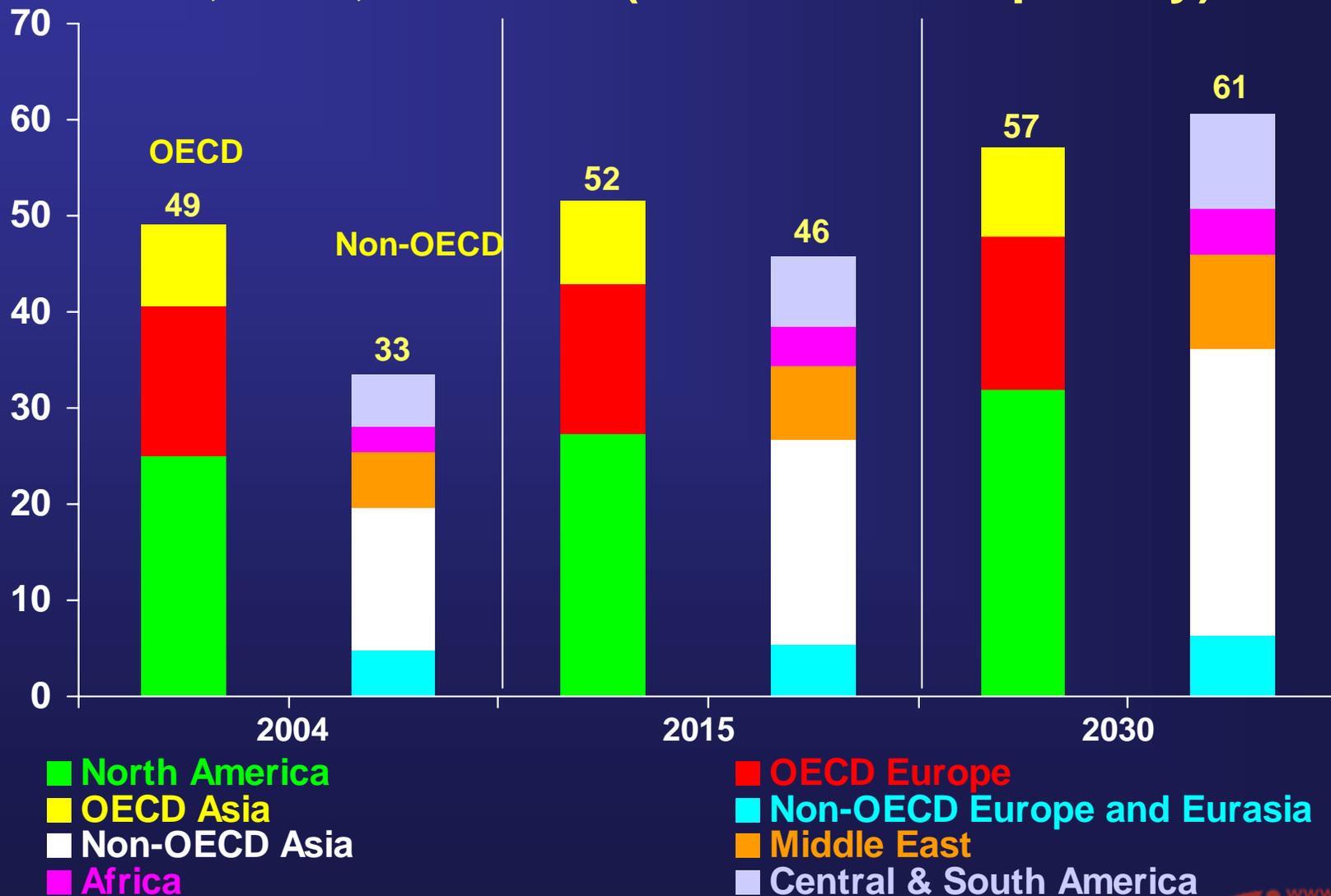
World Energy Consumption, 2004, 2015, and 2030 (quadrillion Btu)



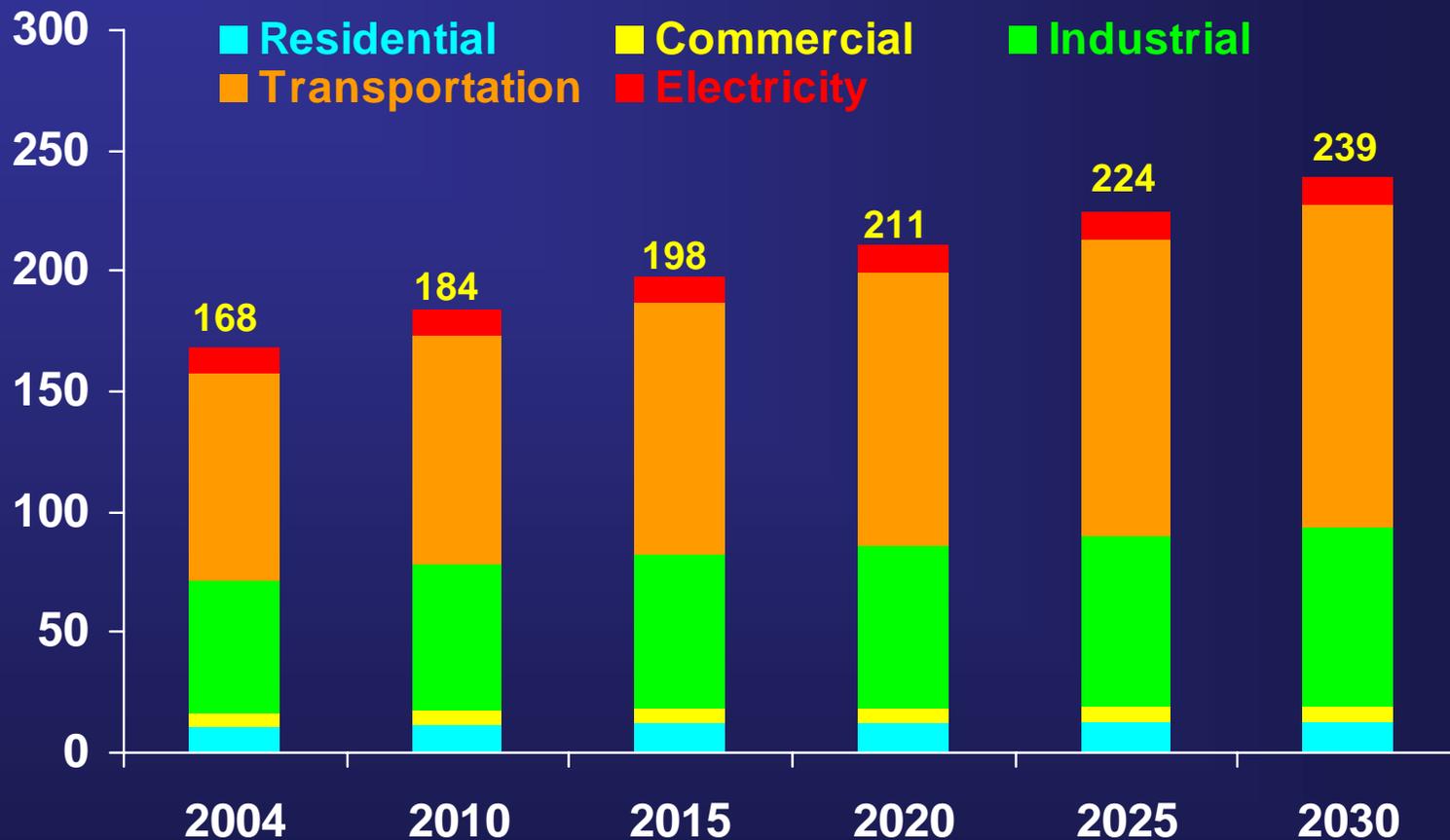
Average Annual Growth in Delivered Energy Consumption, 2004-2030 (percent)



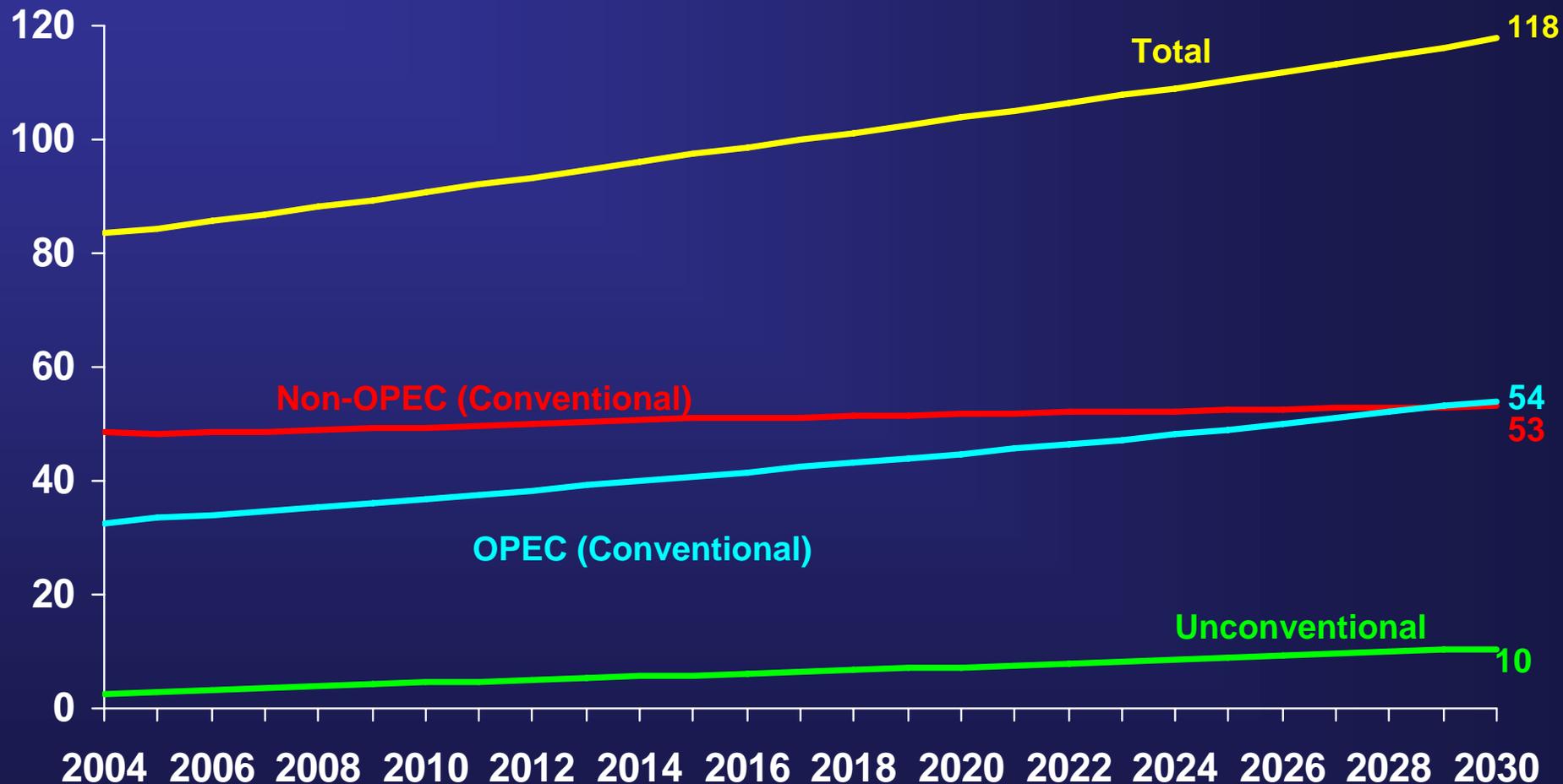
World Liquids Consumption, 2004, 2015, and 2030 (million barrels per day)



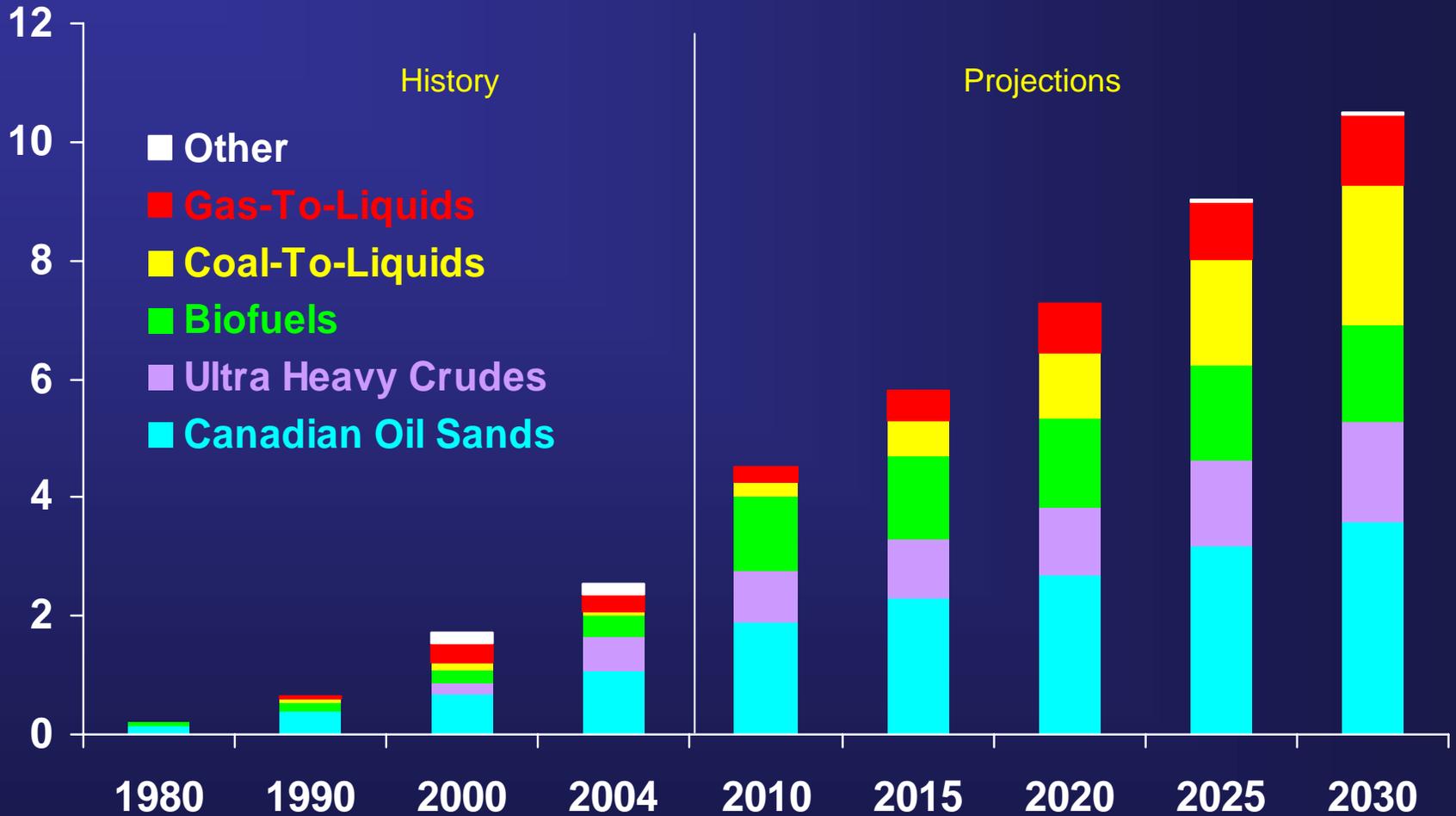
World Liquids Consumption by Sector, 2004-2030 (quadrillion Btu)



World Liquids Production, 2004-2030 (million barrels per day oil equivalent)

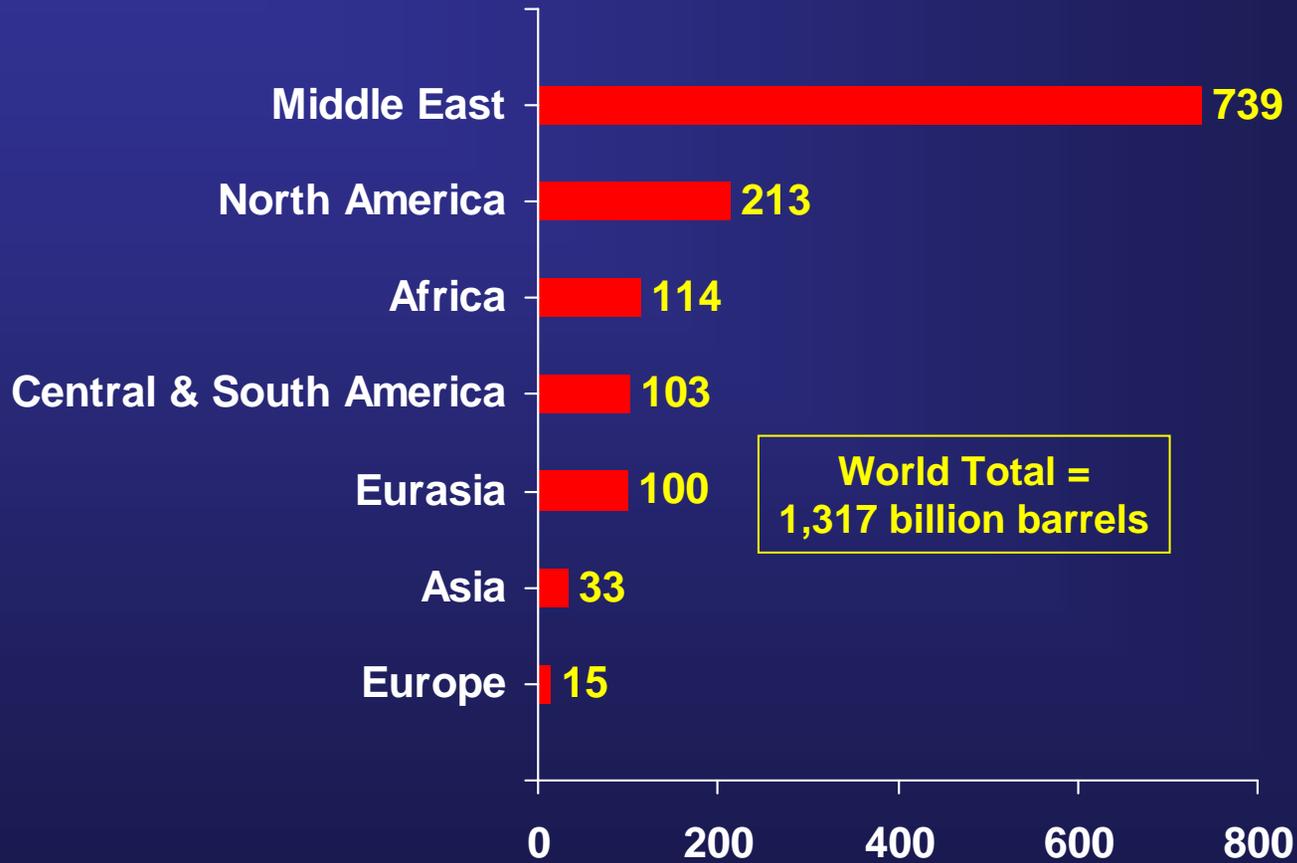


World Unconventional Liquids Production, 1980-2030 (million barrels per day oil equivalent)

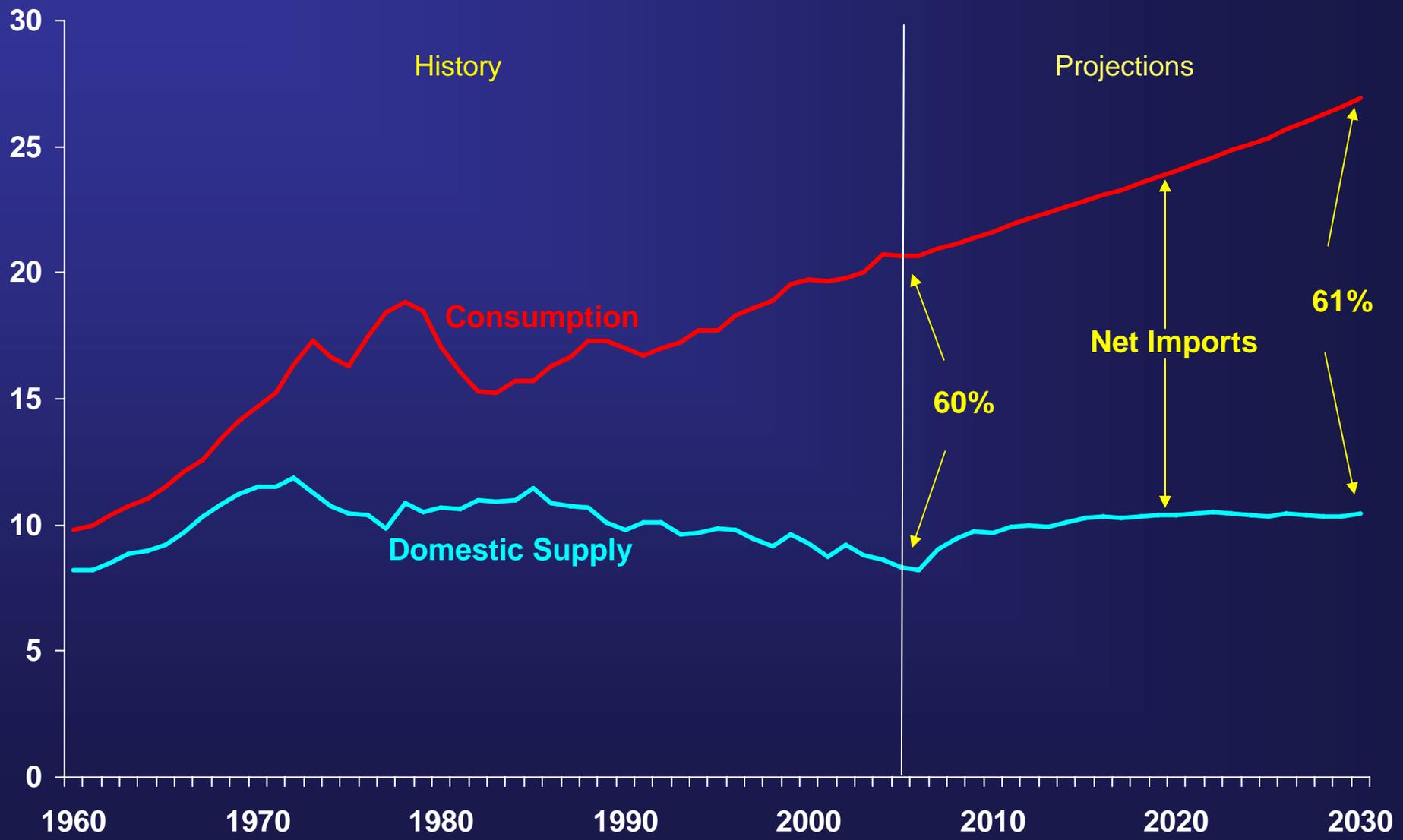


Other includes shale oils and other unidentified sources of unconventional liquid fuels.

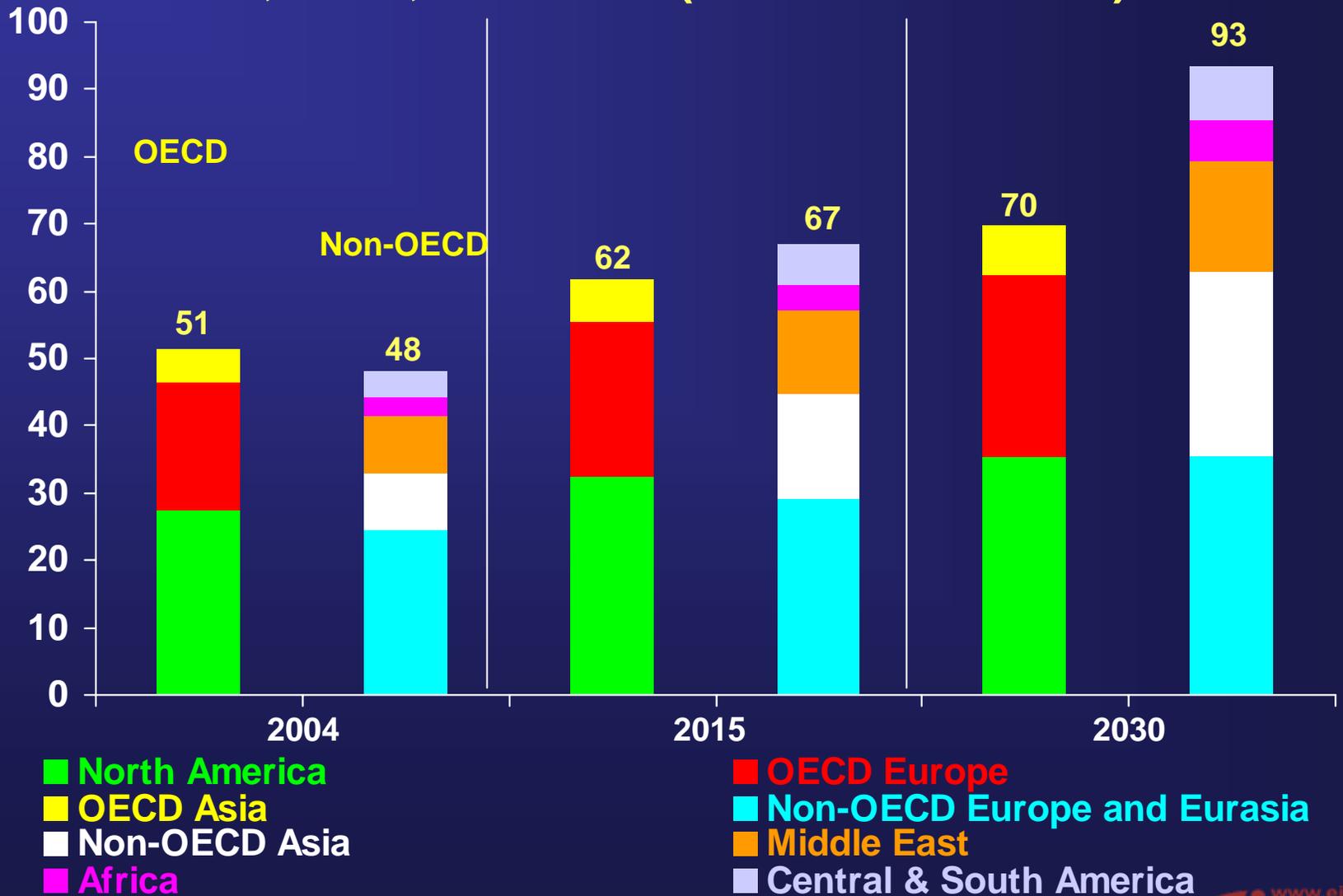
World Proved Oil Reserves, as of January 1, 2007 (billion barrels)



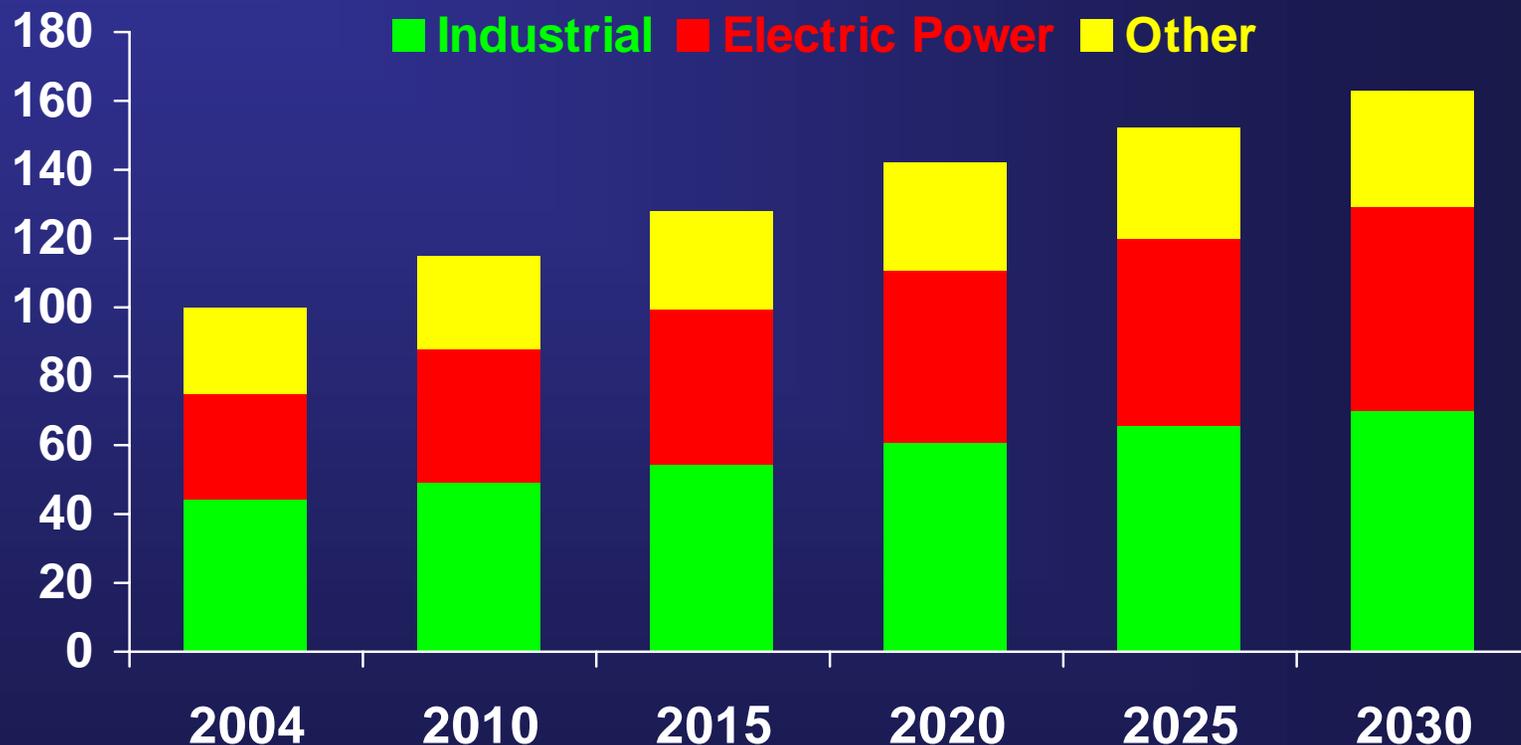
U.S. Liquid Fuels and Other Petroleum Supply, Consumption, and Net Imports, 1960-2030 (million barrels per day)



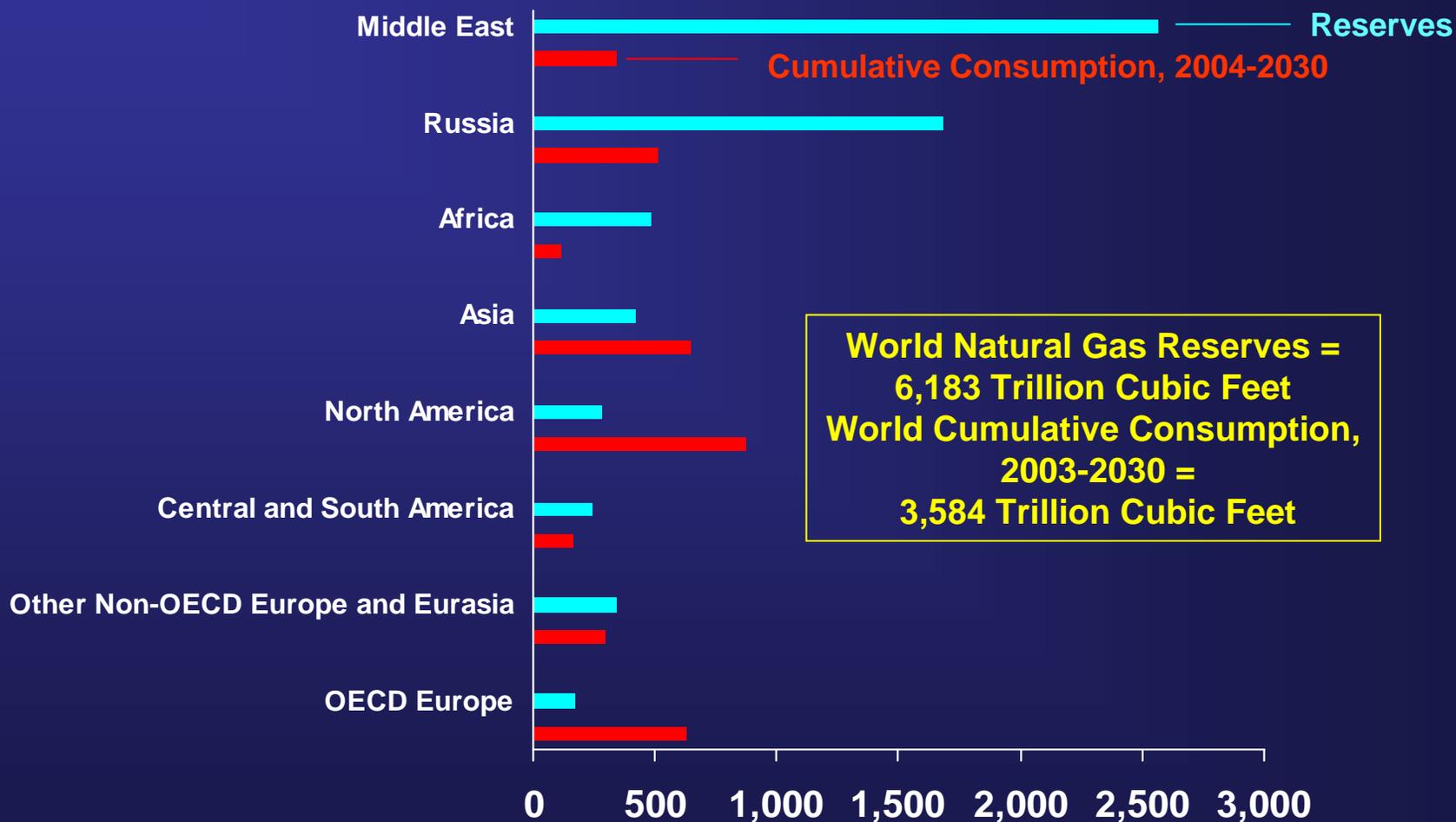
World Natural Gas Consumption, 2004, 2015, and 2030 (trillion cubic feet)



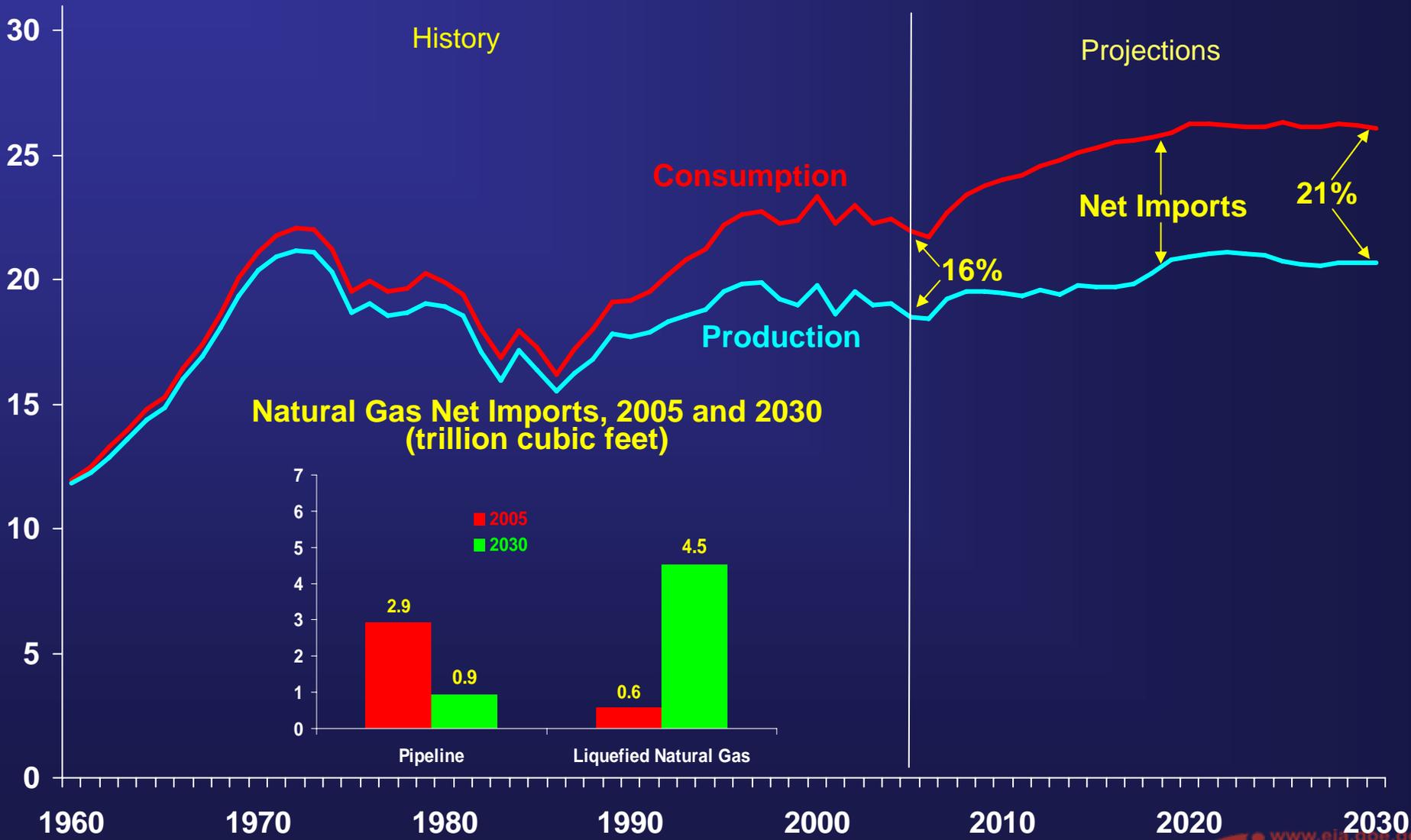
World Natural Gas Consumption by End-Use Sector, 2004-2030 (trillion cubic feet)



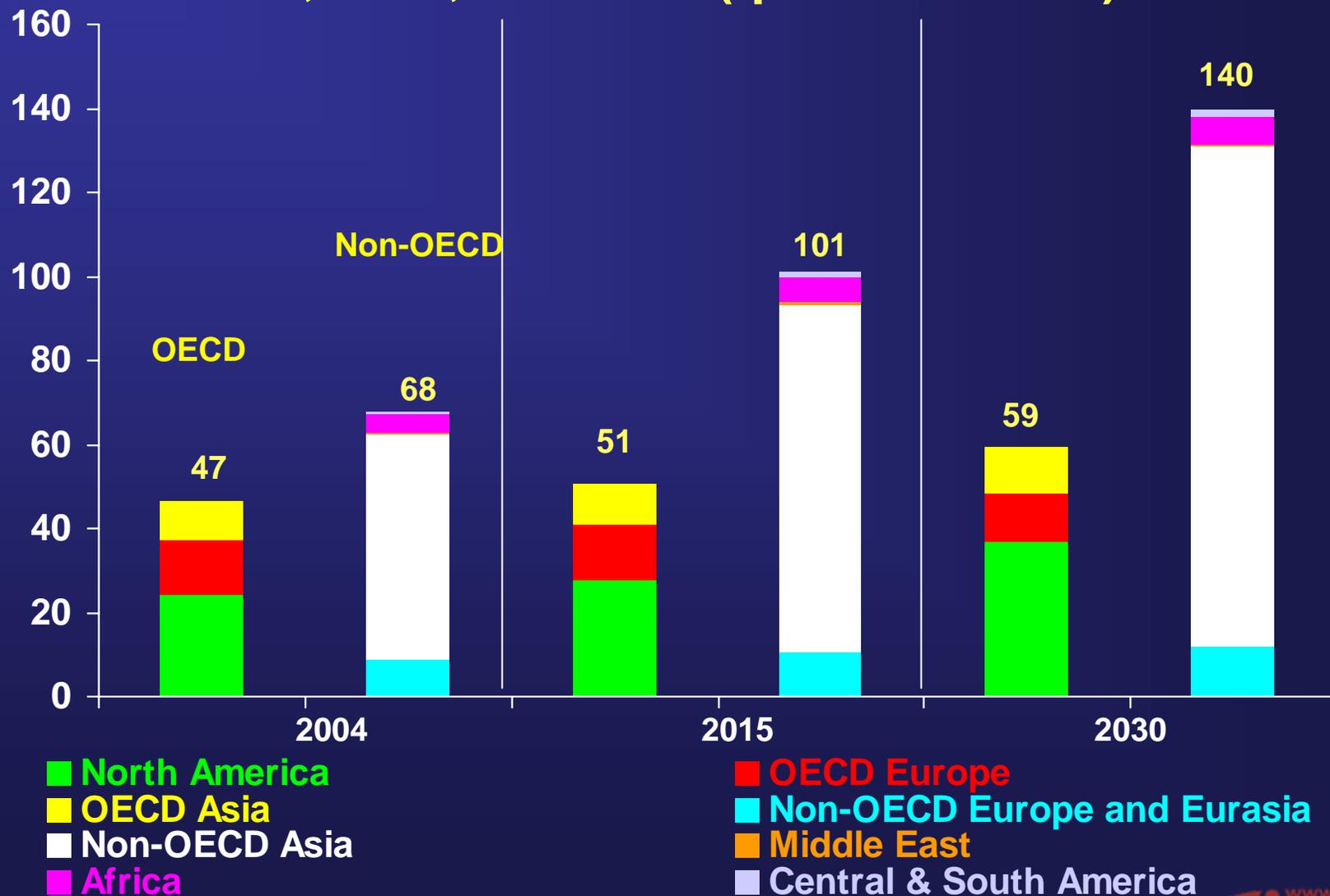
World Natural Gas Reserves, as of January 1, 2007, and Cumulative Consumption, 2004-2030 (trillion cubic feet)



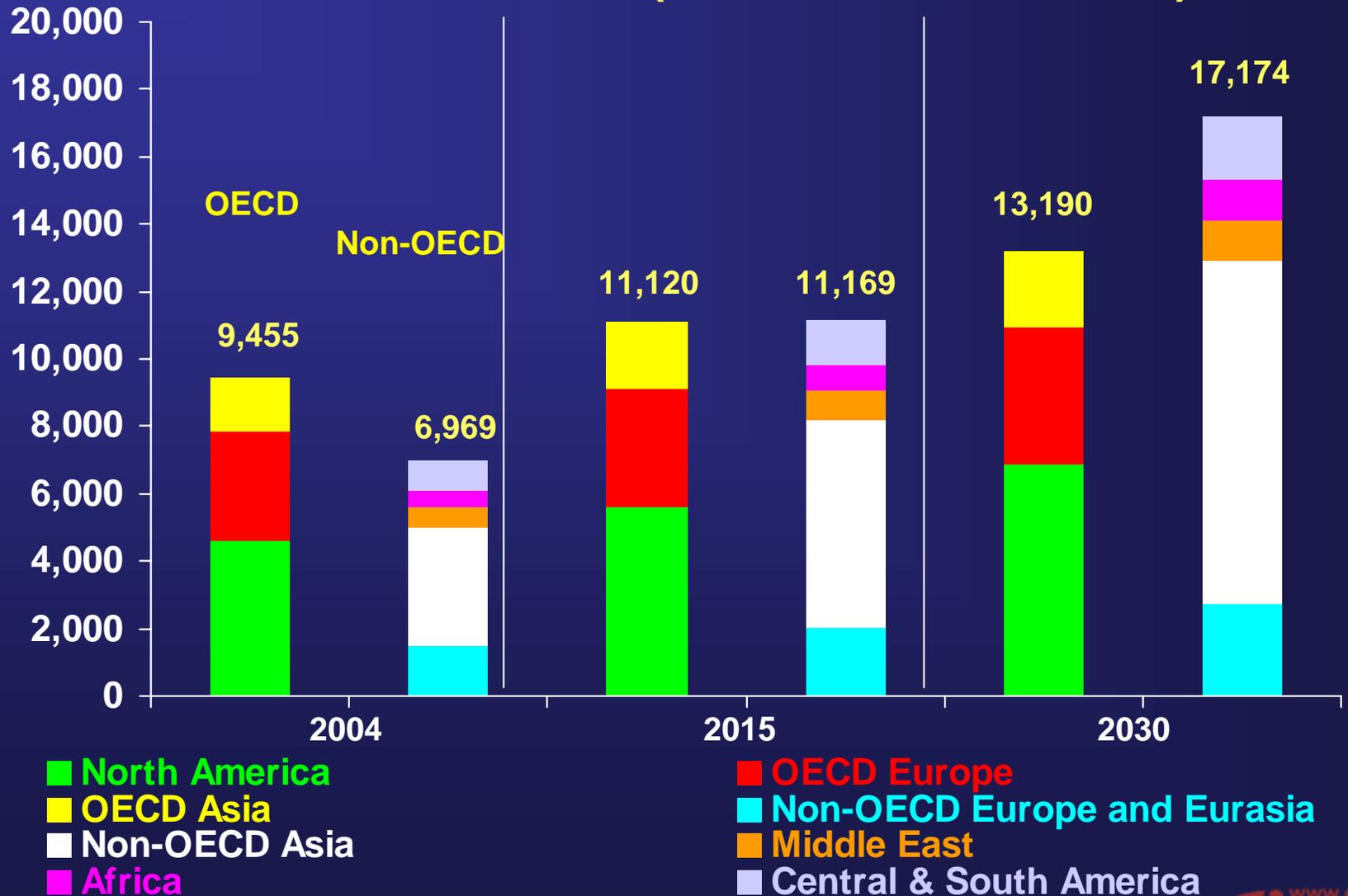
U.S. Natural Gas Production, Consumption, and Net Imports, 1960-2030 (trillion cubic feet)



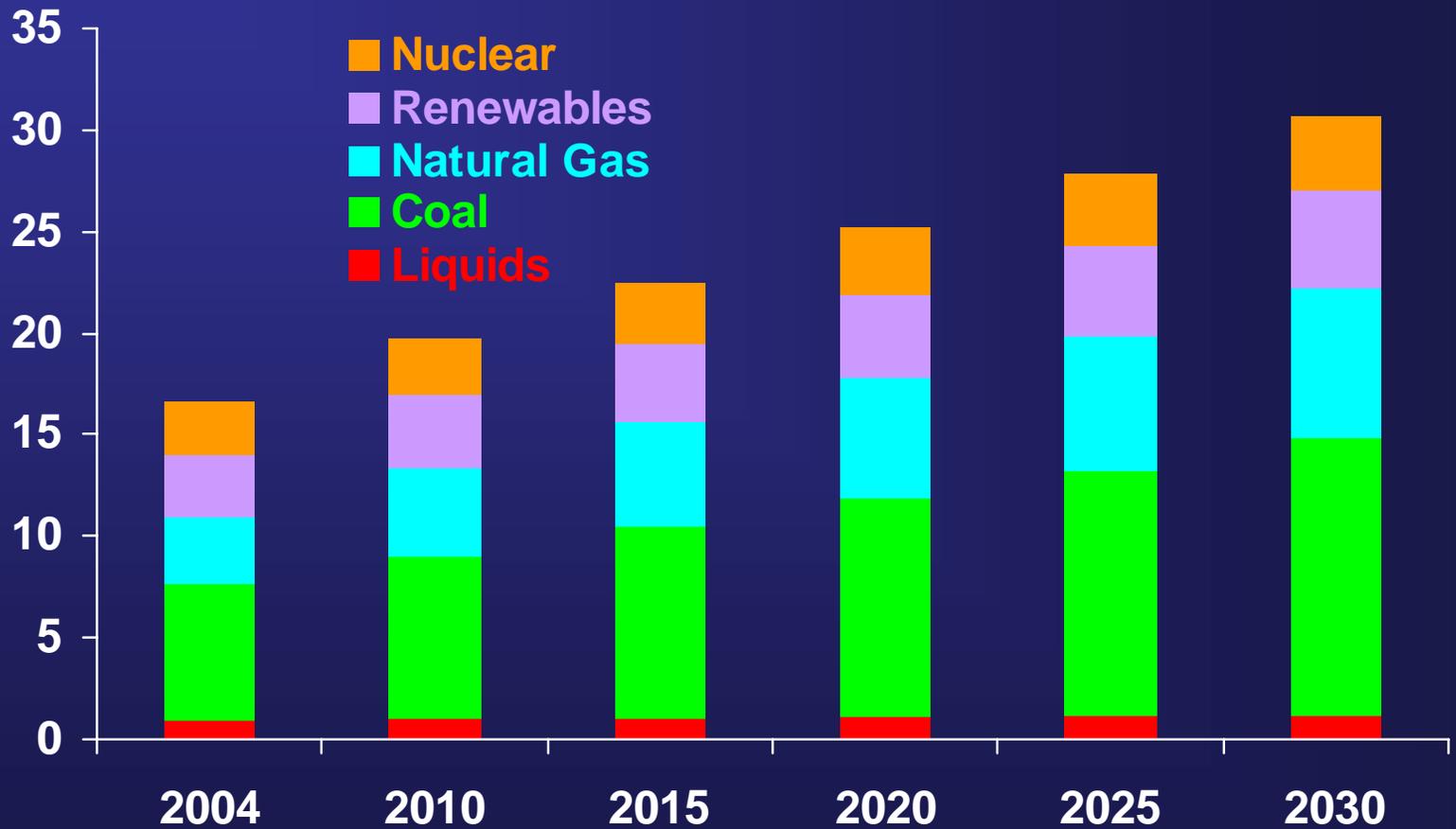
World Coal Consumption, 2004, 2015, and 2030 (quadrillion Btu)



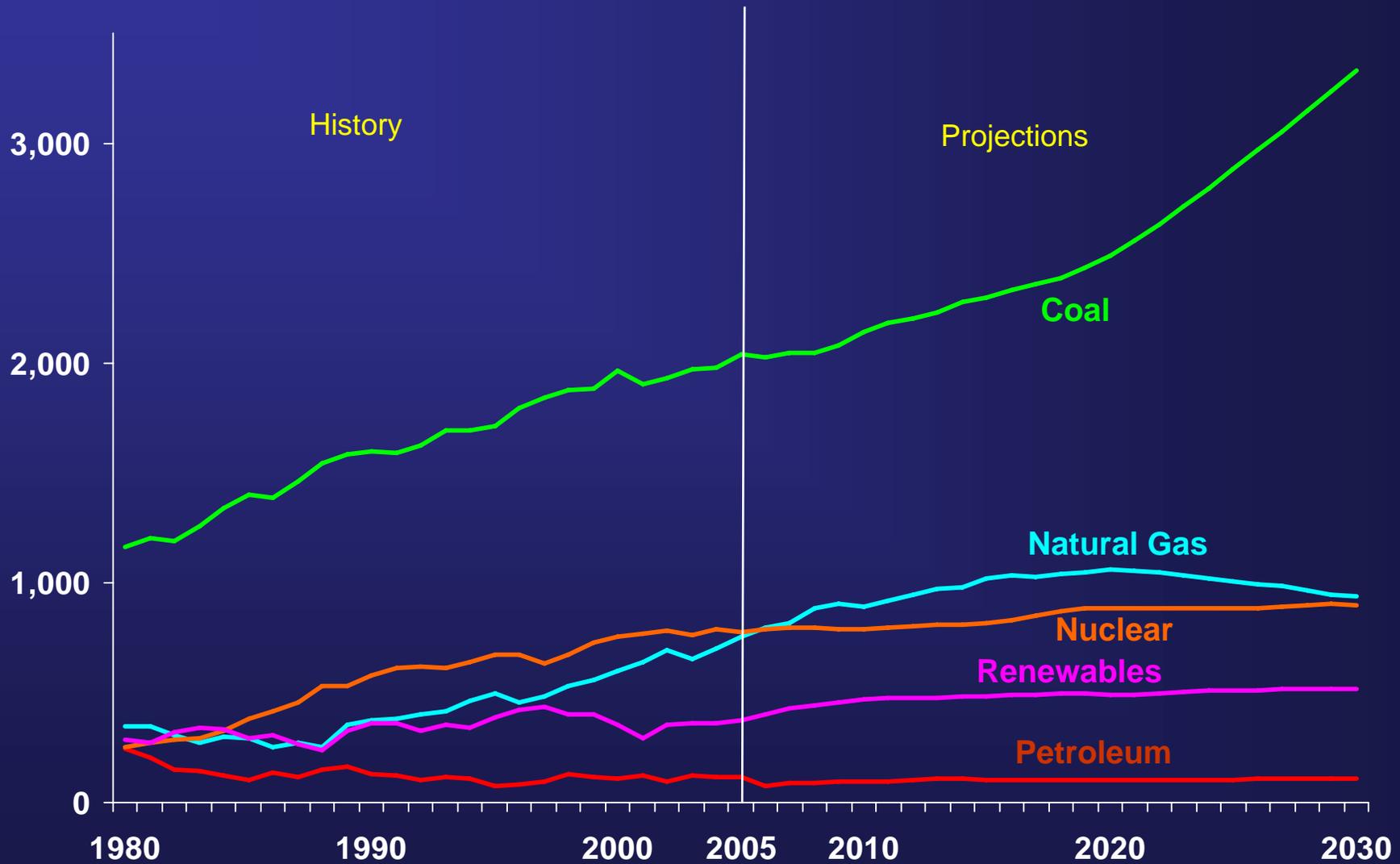
World Net Electricity Generation, 2004, 2015, and 2030 (billion kilowatthours)



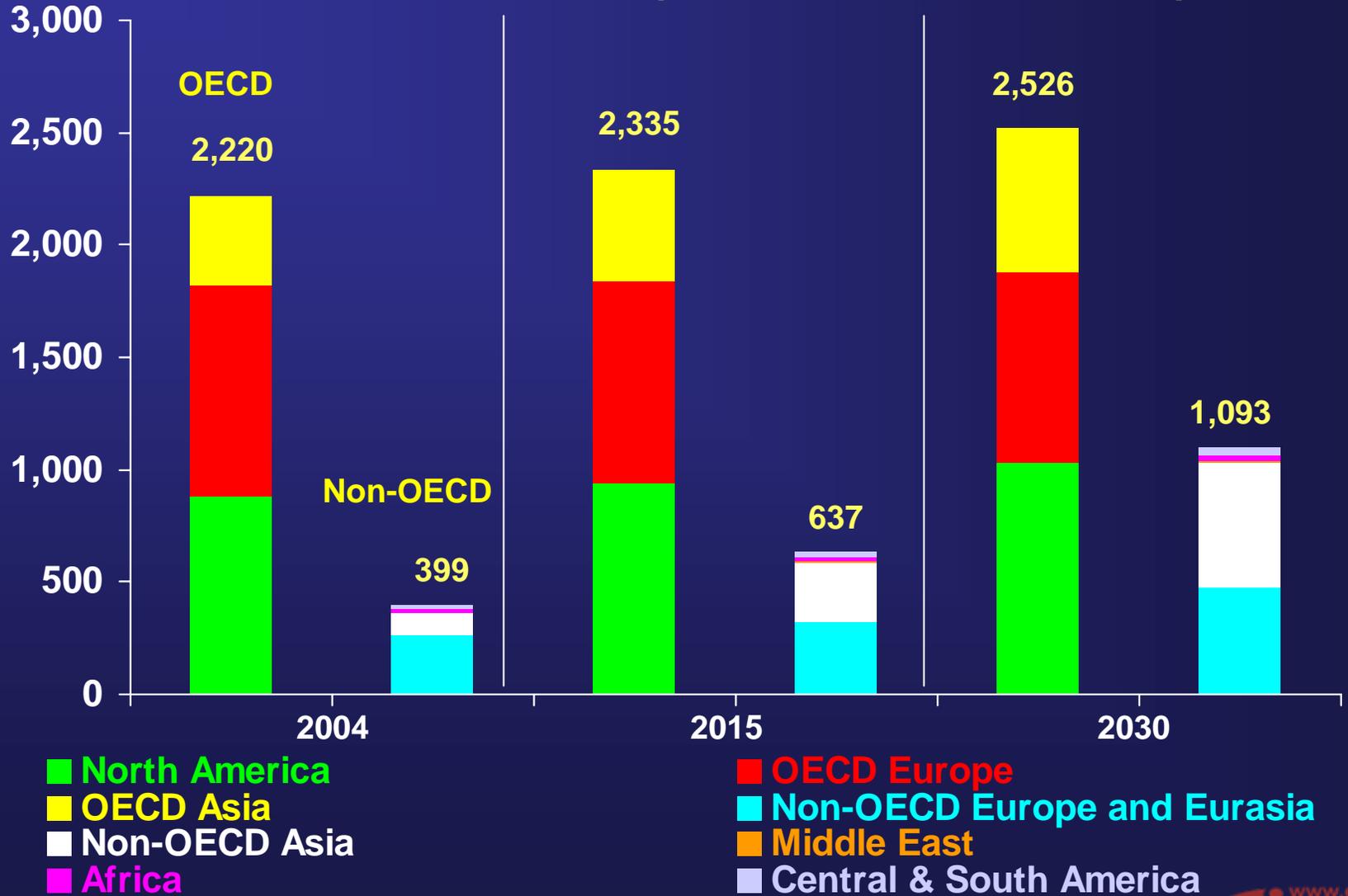
World Electricity Generation by Fuel, 2004-2030 (trillion kilowattours)



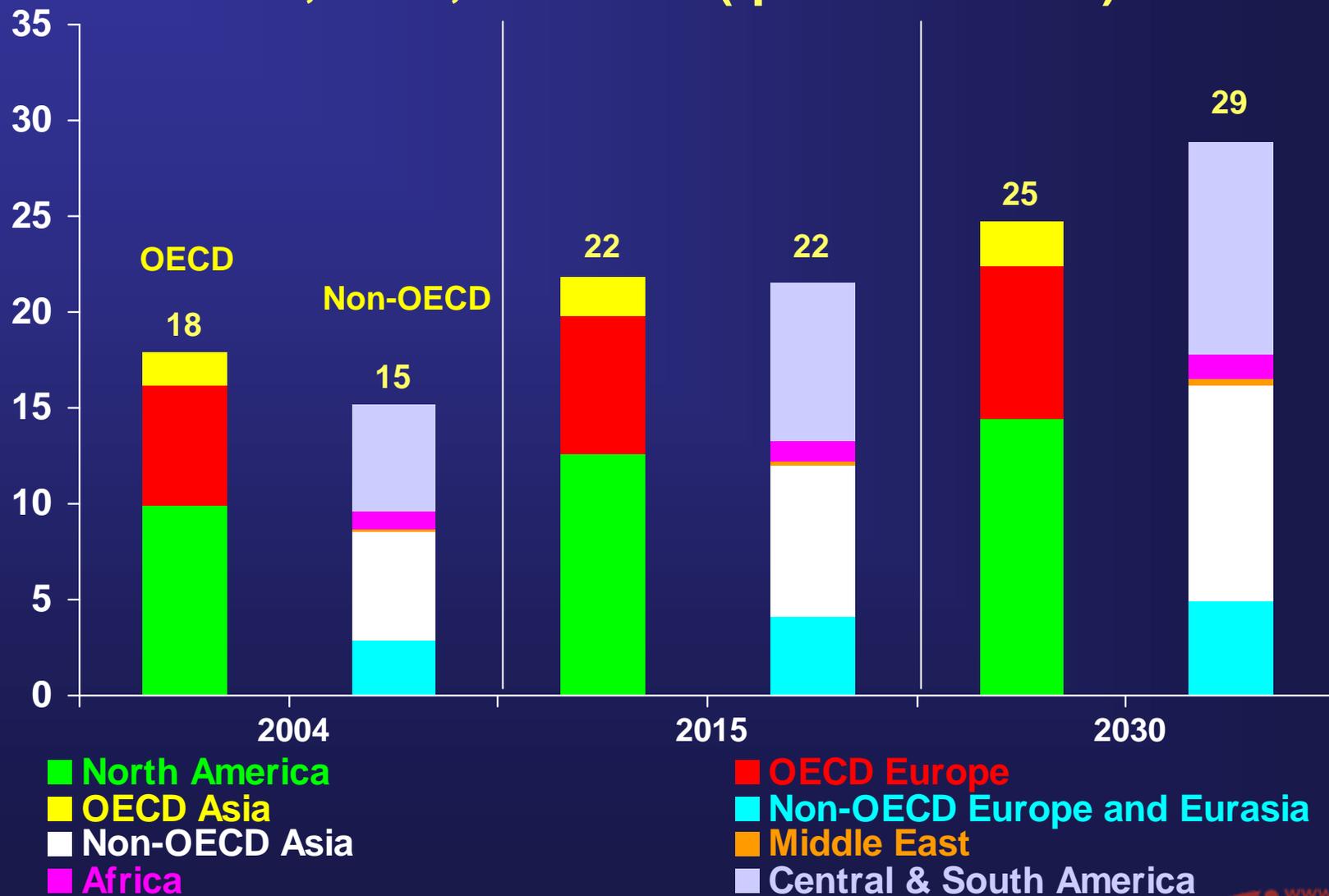
U.S. Electricity Generation by Fuel, 1980-2030 (billion kilowatthours)



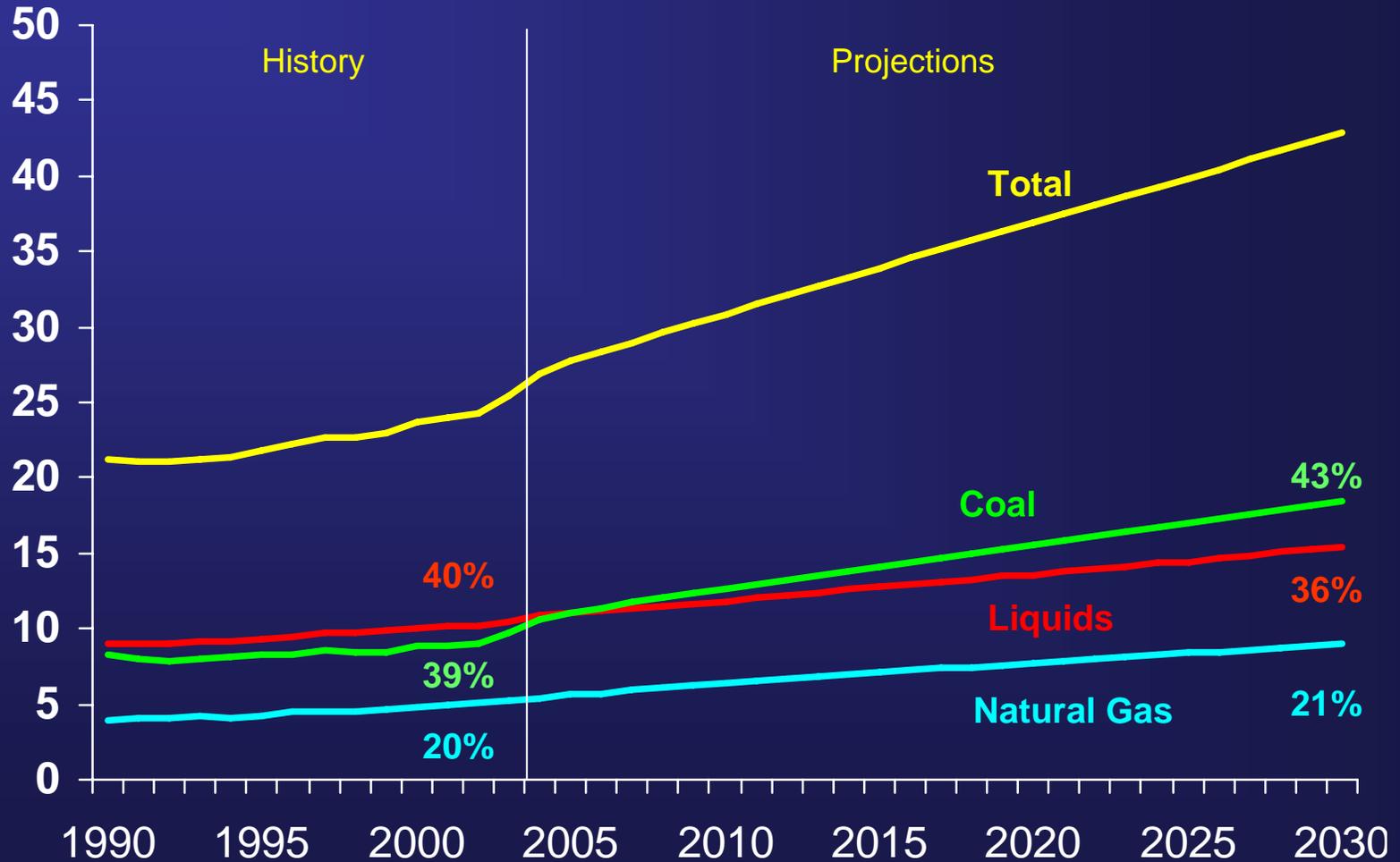
World Nuclear Power Generation, 2004, 2015, and 2030 (billion kilowatthours)



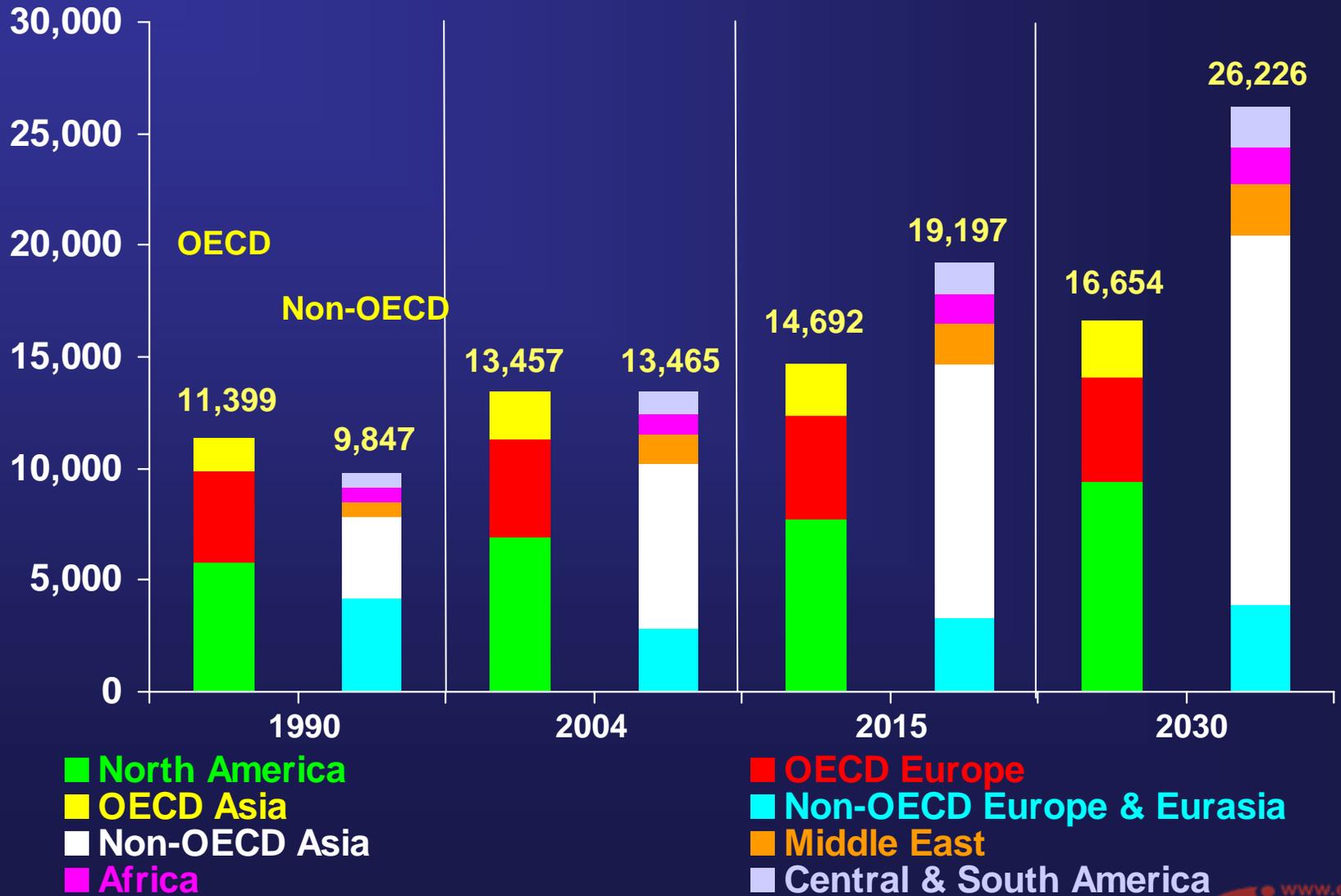
World Renewables Consumption, 2004, 2015, and 2030 (quadrillion Btu)



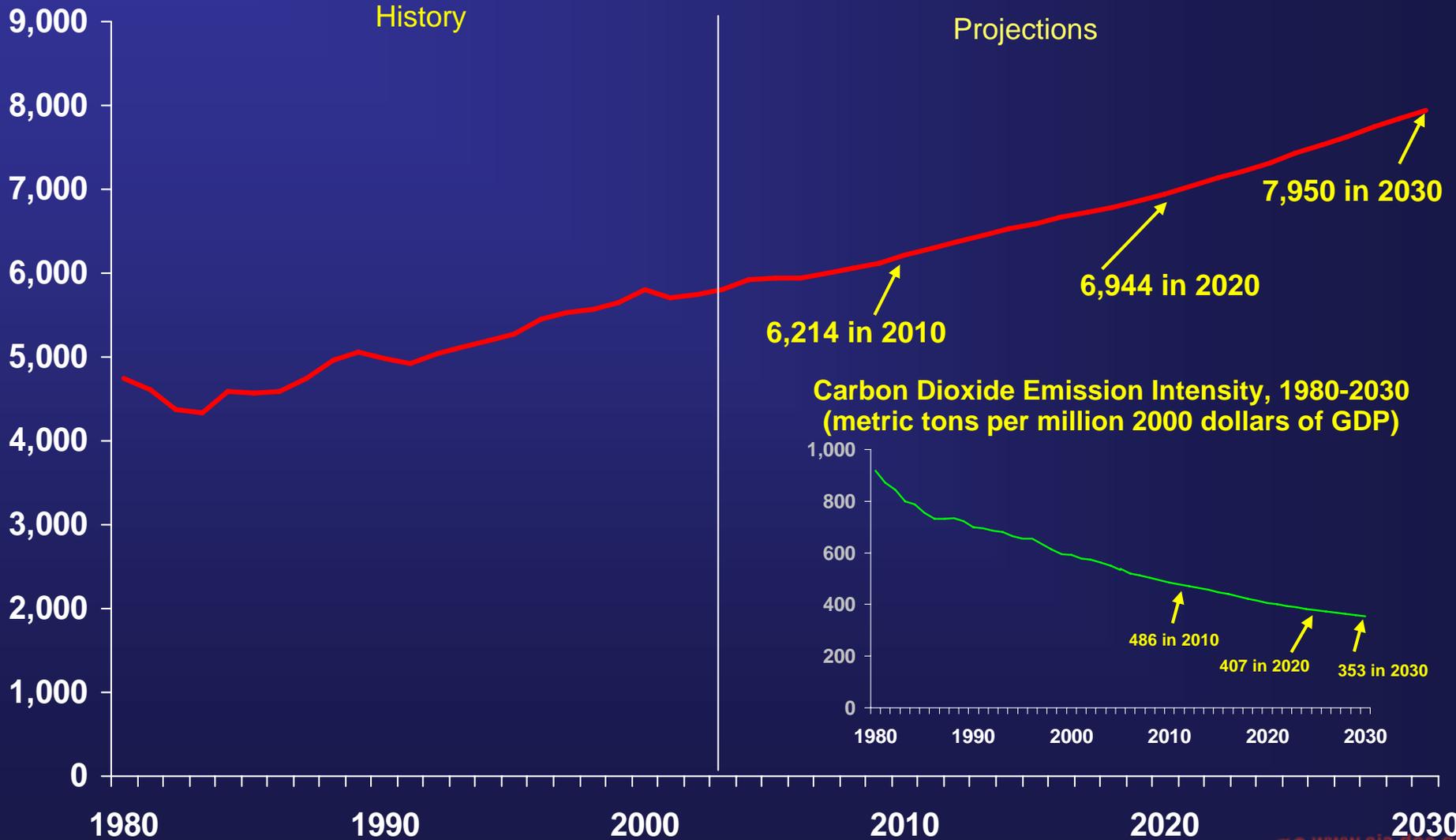
World Energy-Related Carbon Dioxide Emissions, 1990-2030 (billion metric tons)



World Energy-Related Carbon Dioxide Emissions, 1990-2030 (million metric tons)



U.S. Energy-Related Carbon Dioxide Emissions, 1980-2030 (million metric tons)



Periodic Reports

Petroleum Status and Natural Gas Storage Reports, weekly

Short-Term Energy Outlook, monthly

Annual Energy Outlook 2007, February 2007

International Energy Outlook 2007, May 2007

Examples of Special Analyses

“Economic Effects of High Oil Prices,” Annual Energy Outlook 2006

Analysis of Oil and Gas Production in the Arctic National Wildlife Refuge,

March 2004

The Global Liquefied Natural Gas Market: Status and Outlook, December 2003

“Restricted Natural Gas Supply Case,” Annual Energy Outlook 2005

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