Natural Gas Demand: New Domestic Uses and LNG Exports

Natural Gas Demand Outlook
Morgan Stanley Global Commodities Conference
December 12, 2012 | Sunny Isles Beach, FL

by
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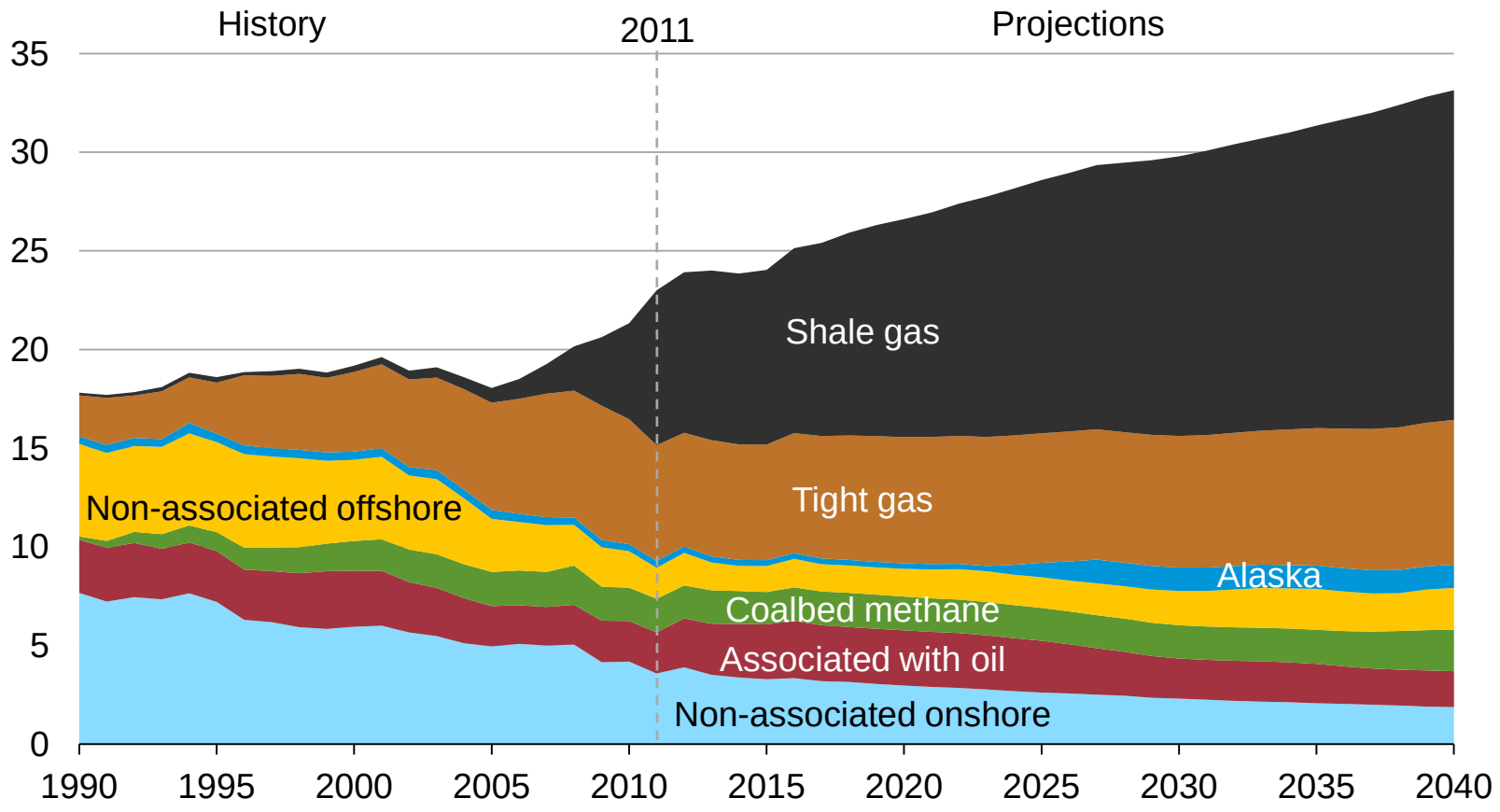
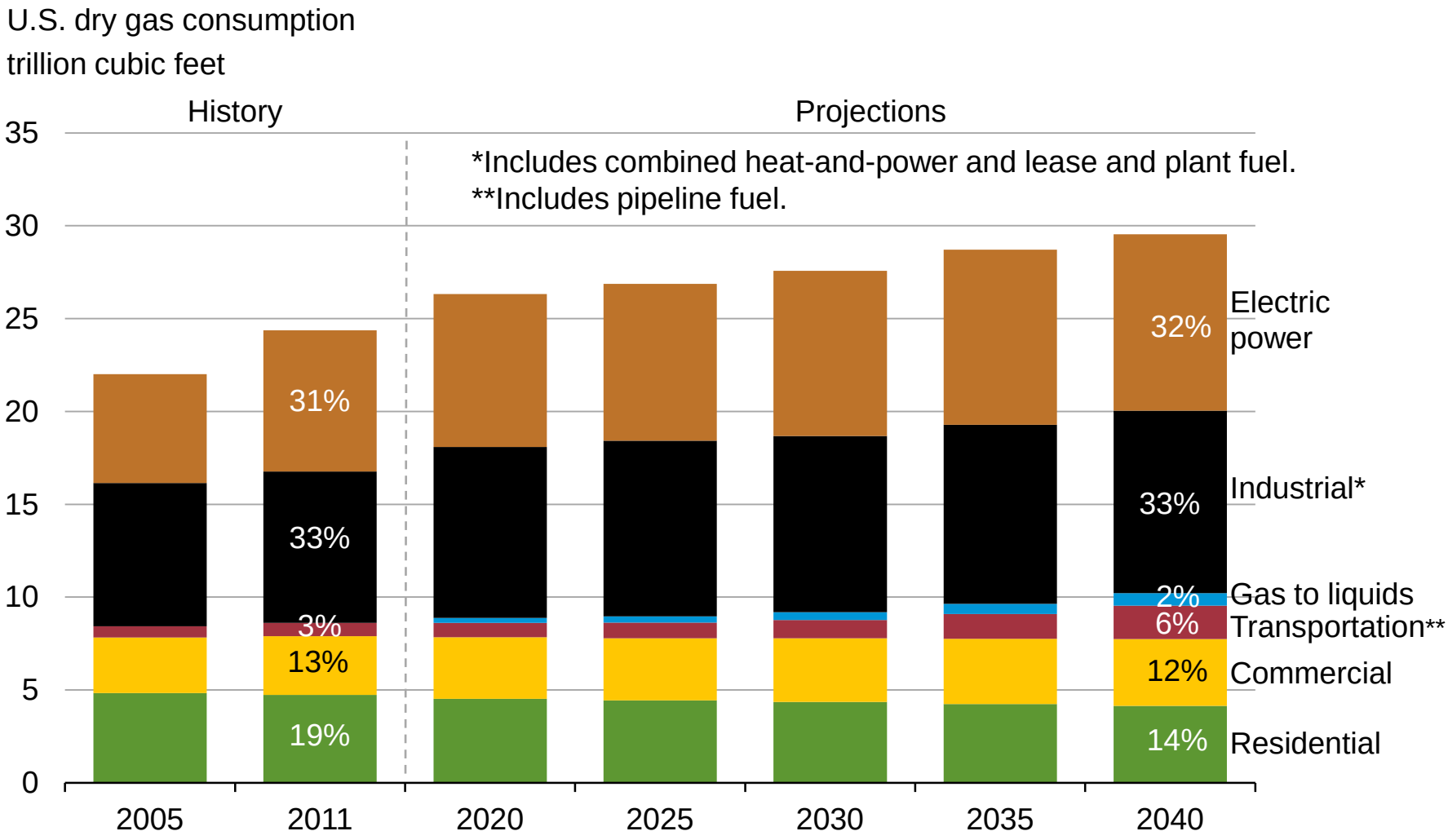
Shale gas leads growth in production through 2040

U.S. dry natural gas production
trillion cubic feet



Source: EIA, Annual Energy Outlook 2013 Early Release

Natural gas consumption is dispersed with electric power, industrial, and transportation use driving future demand growth

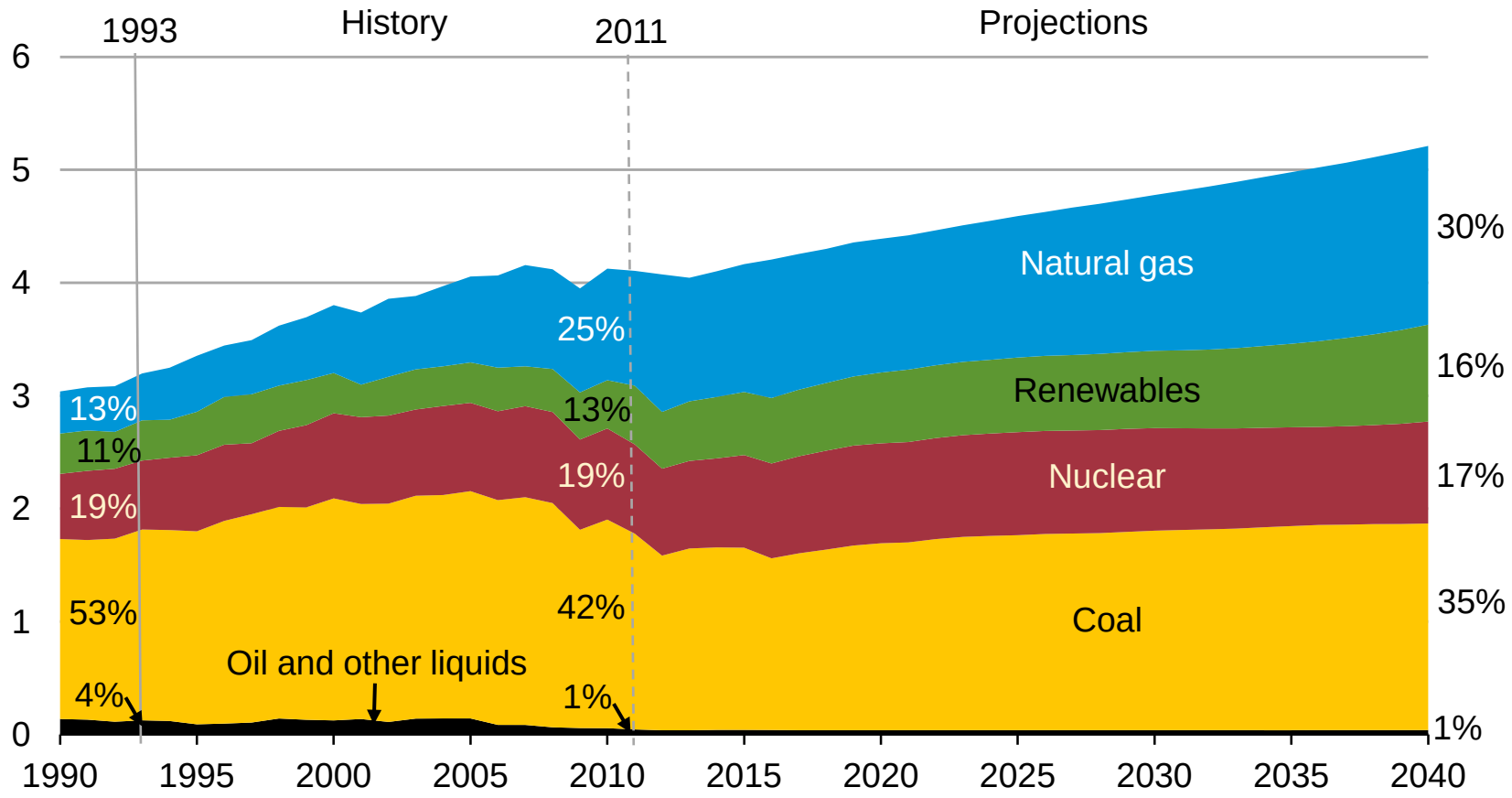


Source: EIA, Annual Energy Outlook 2013 Early Release

Electricity generation mix shifts toward natural gas and renewables, but coal remains the largest fuel source

U.S. electricity net generation

trillion kilowatthours

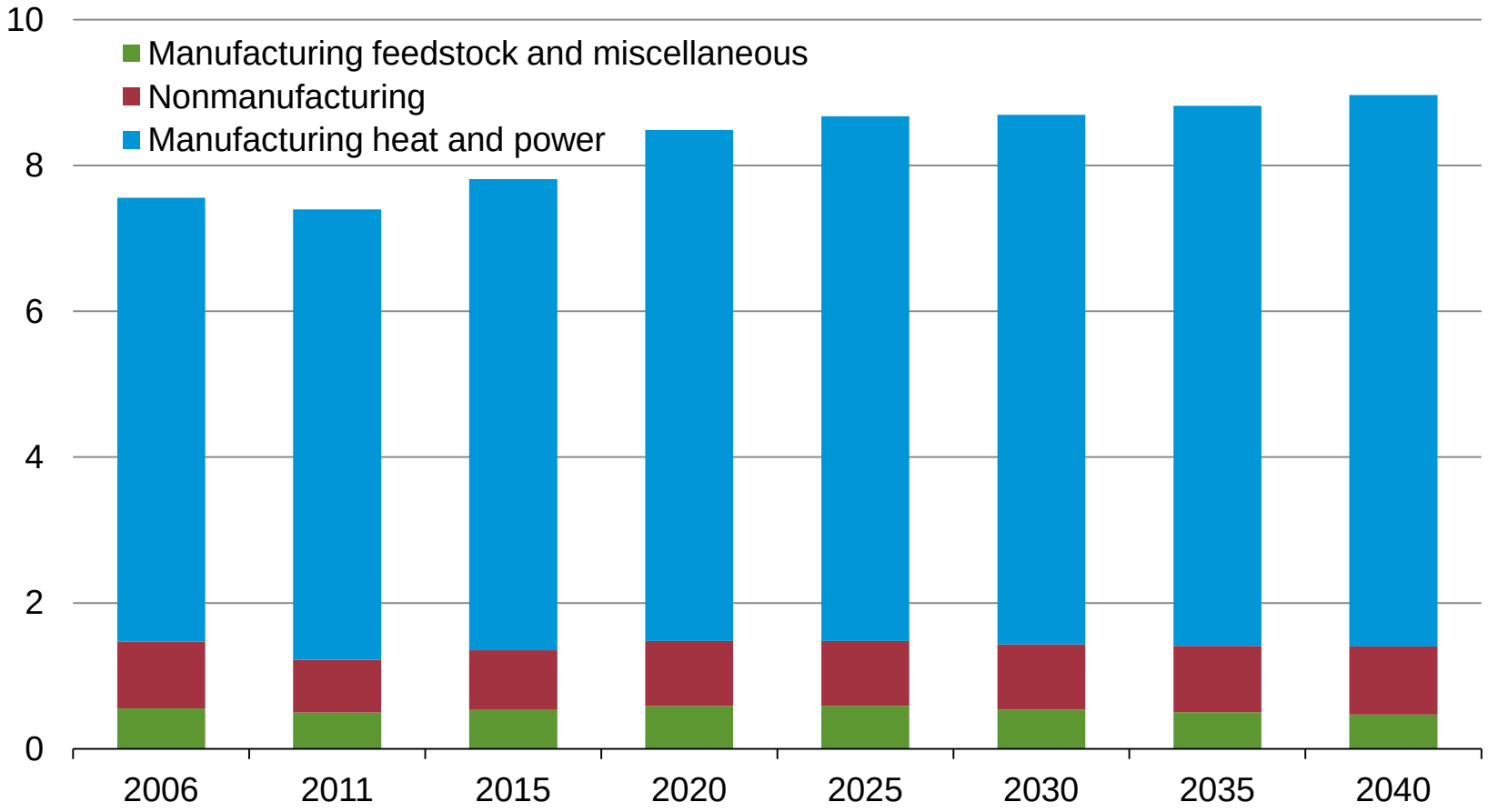


Source: EIA, Annual Energy Outlook 2013 Early Release

Industrial natural gas use grows, especially before 2025

Industrial natural gas consumption

quadrillion Btu

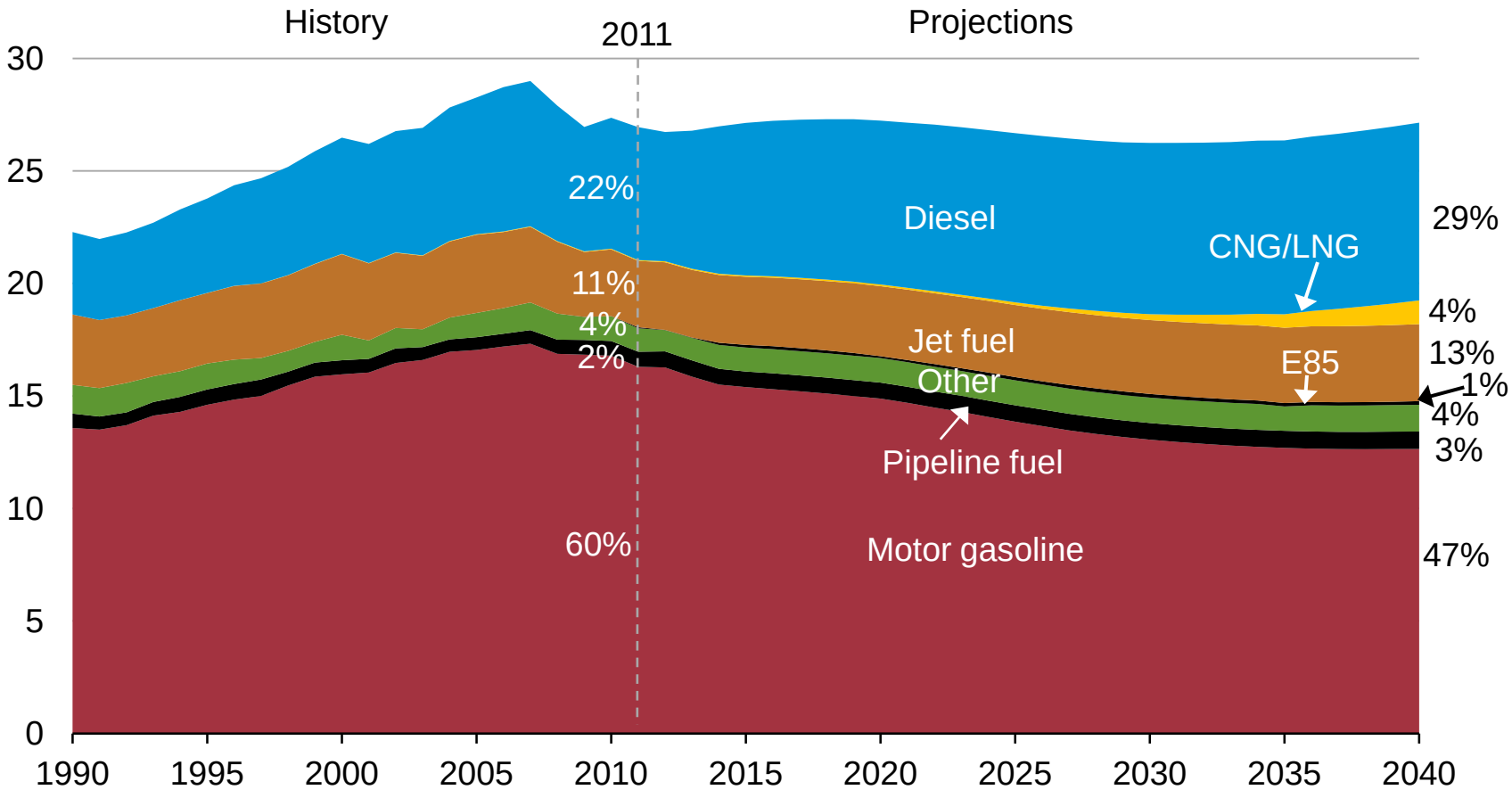


Source: EIA, Annual Energy Outlook 2013 Early Release

Natural gas use in transportation rises as motor gasoline demand declines… overall transportation use is largely unchanged

Transportation energy consumption by fuel

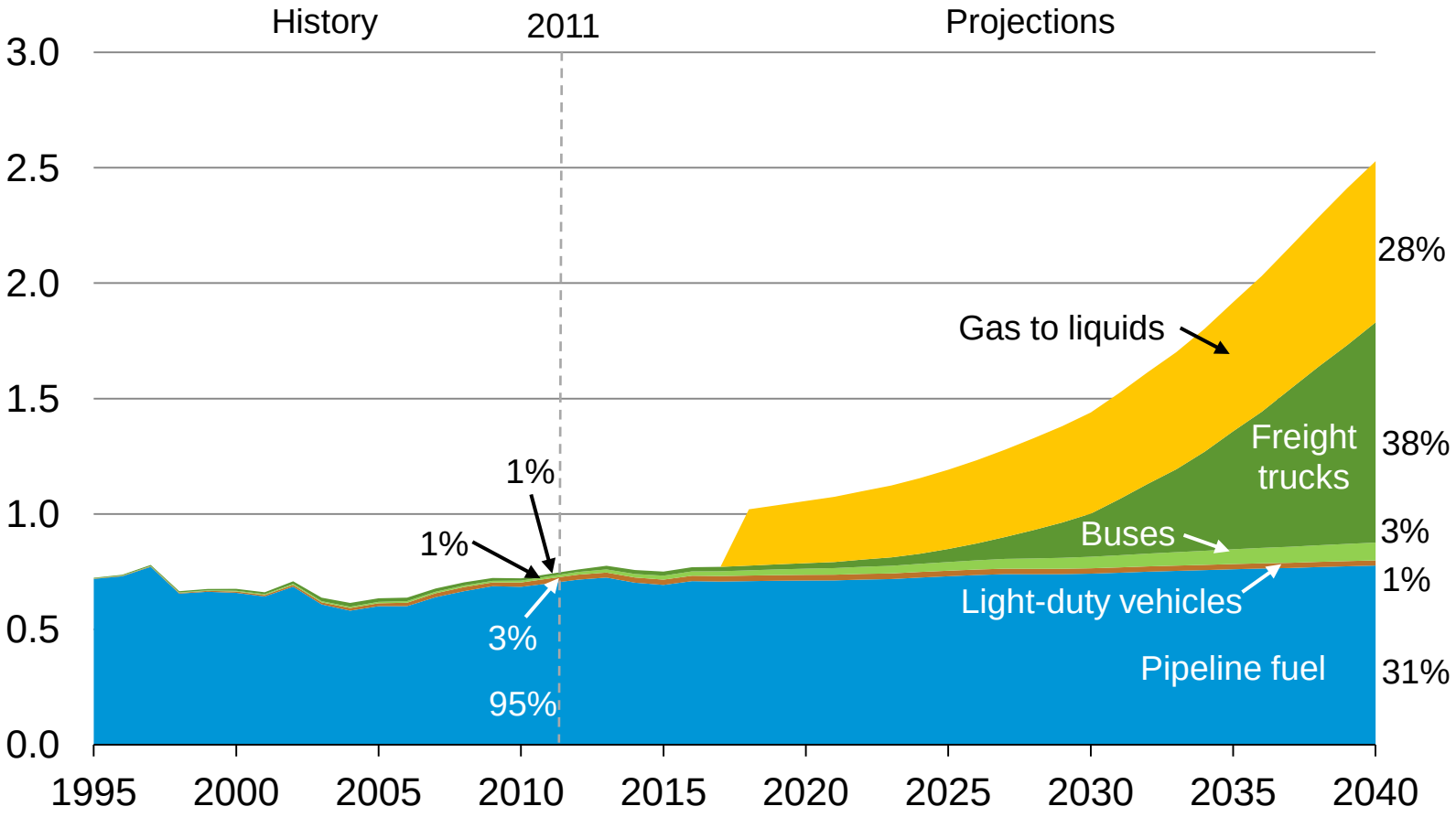
quadrillion Btu



Source: EIA, Annual Energy Outlook 2013 Early Release

Growth of natural gas in transportation led by heavy duty trucks (LNG) and gas to liquids (diesel)… marine and rail to come?

U.S. natural gas consumption
quadrillion Btu

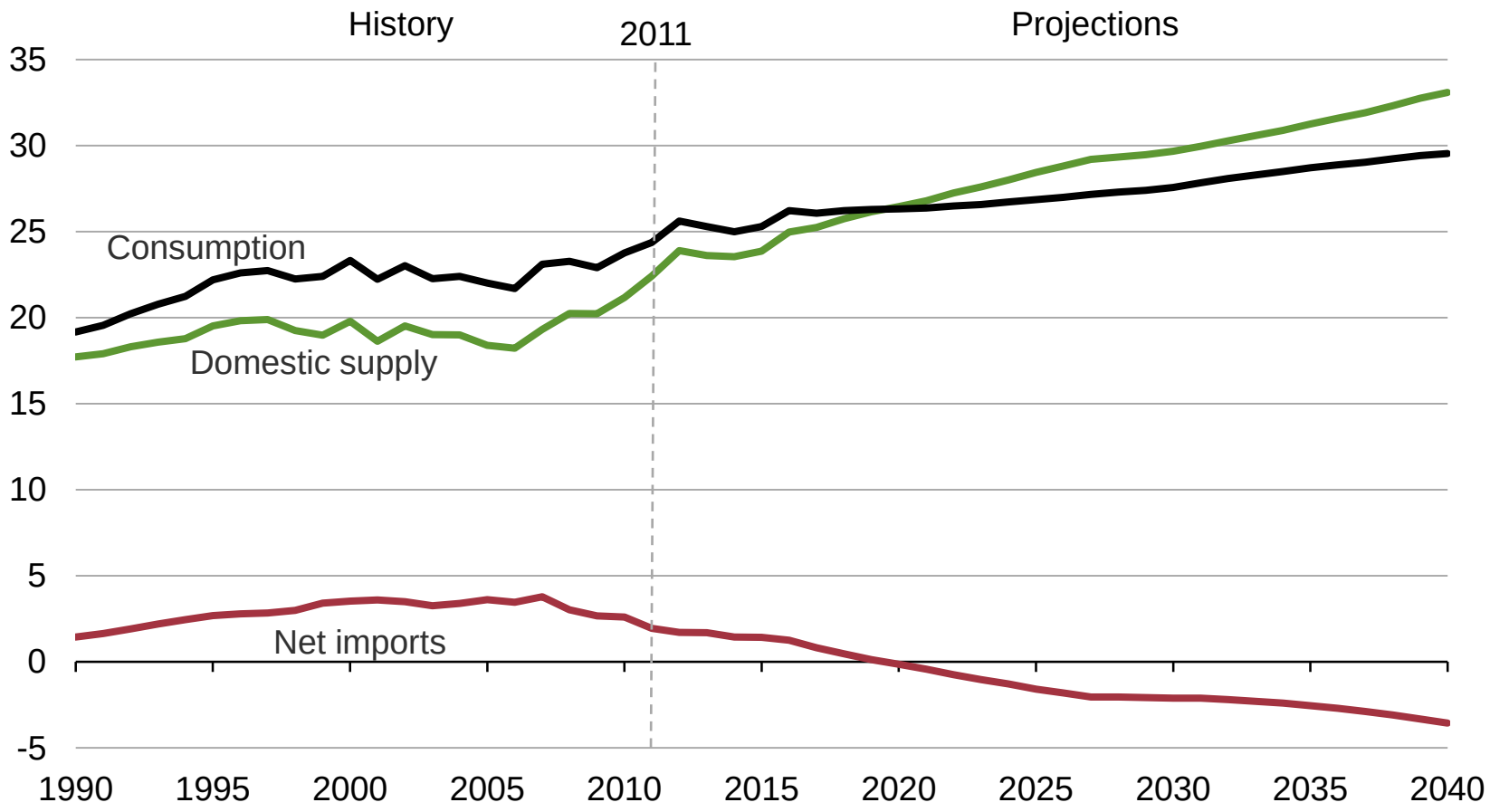


Note: Gas to liquids includes heat, power, and losses.

Source: EIA, Annual Energy Outlook 2013 Early Release

Domestic natural gas production grows faster than consumption and the U.S. becomes a net exporter of natural gas around 2020

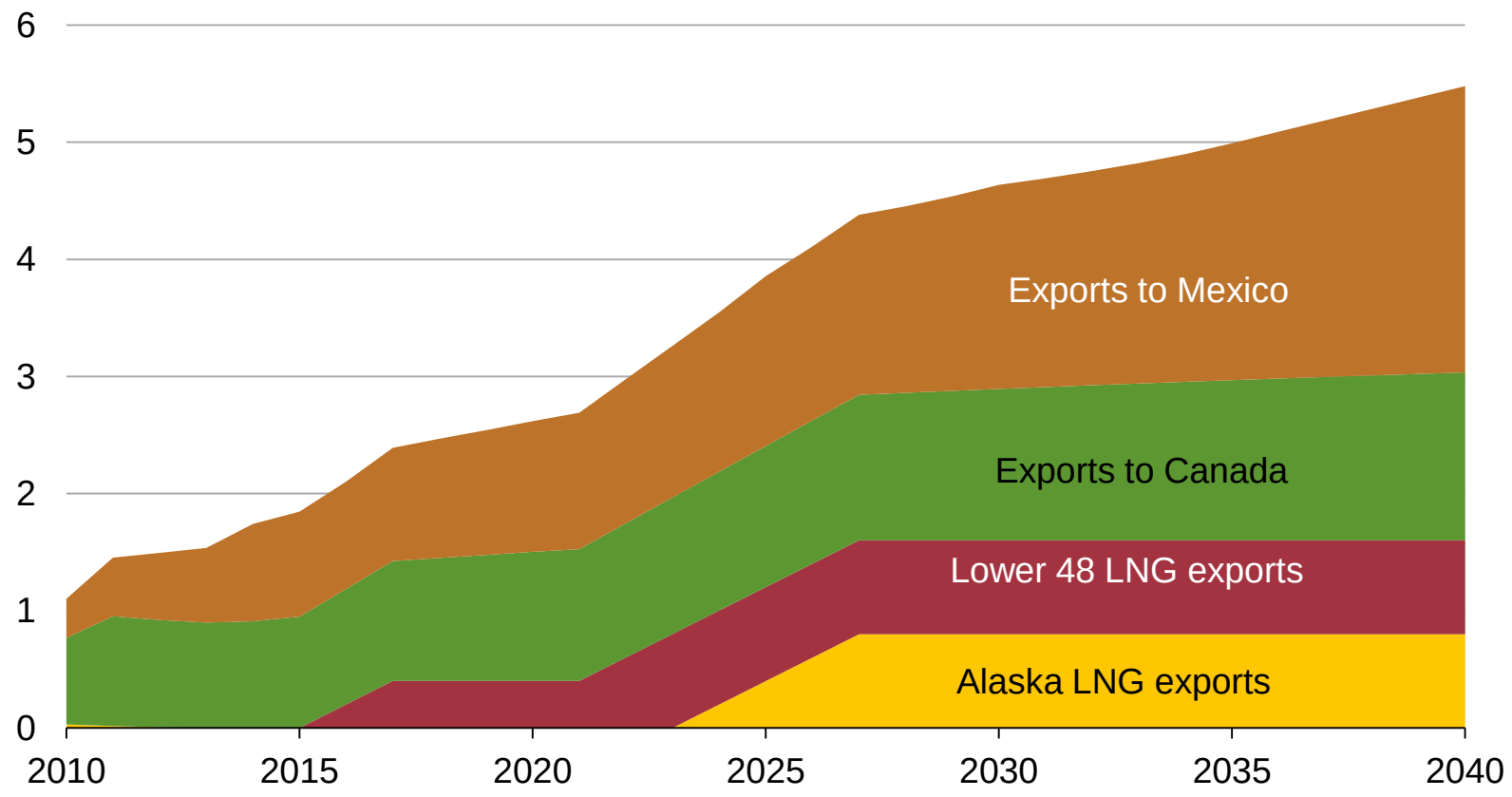
U.S. dry gas
trillion cubic feet



Source: EIA, Annual Energy Outlook 2013 Early Release

Total natural gas exports nearly quadruple by 2040 in the *AEO2013* Reference case

U.S. natural gas exports
trillion cubic feet



Source: EIA, Annual Energy Outlook 2013 Early Release

Regulations for LNG export licenses

Two key federal agencies are involved in LNG export licenses. The Federal Energy Regulatory Commission (FERC) licenses the export facilities (LNG plants and terminals). The Department of Energy's Office of Fossil Energy (DOE/FE) is responsible for a public interest determination.

- Federal law generally requires approval of natural gas exports to countries that have a free trade agreement (FTA) with the United States.
- For countries that do not have an FTA, the DOE is required to grant applications for export authorizations unless the proposed exports "will **not** be consistent with the public interest." Factors for consideration include economic, energy security, and environmental impacts.
- On August 7, 2012, Cheniere Marketing, LLC was granted a non-FTA license for up to 2.2 Bcf per day over 20 years. On December 5, 2012, the DOE/FE released a consultant study (NERA) on the economic impact of LNG exports, and invited comments. The NERA report will become part of the 15 pending export application dockets.
- DOE/FE expects to act on the applications on a case-by-case basis, starting with applicants which have already commenced the pre-filing process at FERC.

For more information

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

Annual Energy Outlook | www.eia.gov/forecasts/aeo

Short-Term Energy Outlook | www.eia.gov/forecasts/steo

International Energy Outlook | www.eia.gov/forecasts/ieo

Today In Energy | www.eia.gov/todayinenergy

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