

# Chemicals Production in the *Annual Energy Outlook* Model



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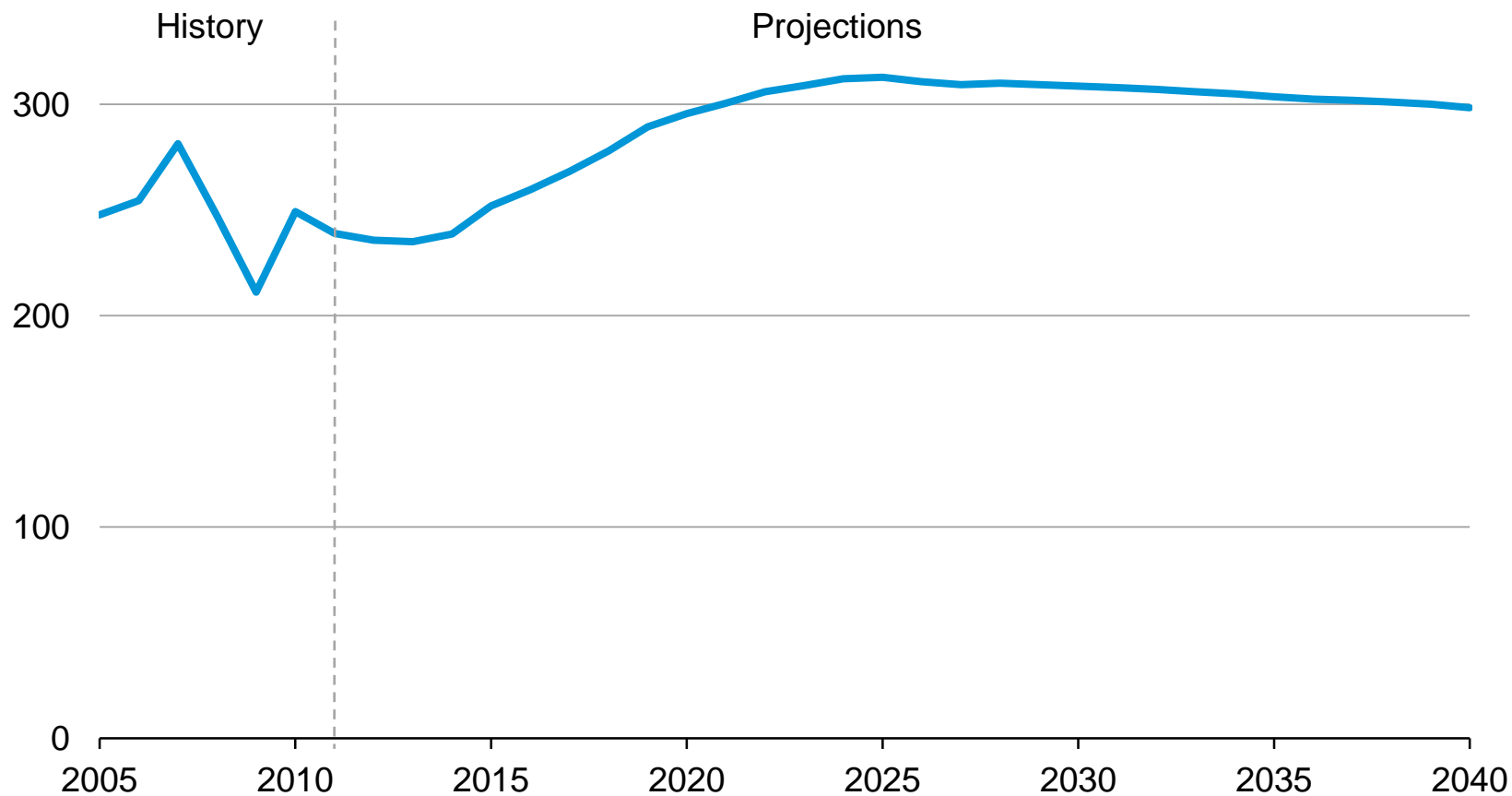
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## Current representation of chemicals in the *AEO*

- Baseline fuel & feedstock consumption data (MECS)
- Fuel & feedstock projections
  - Macroeconomic driven: chemical shipments/production
  - Feedstock price determinants (NGL vs. naphtha) are employed
  - Ethane consumption = ethane supply
  - Heat & power efficiency improvements
- Macroeconomic chemical drivers: bulk chemicals (organic, inorganic, resins, agricultural chemicals), other chemicals (pharma, paints, soaps)
  - Bulk chemical shipments influenced by fuel prices
  - No explicit assumptions about origins of chemicals (petroleum vs. biobased)

# Organic & resins shipments

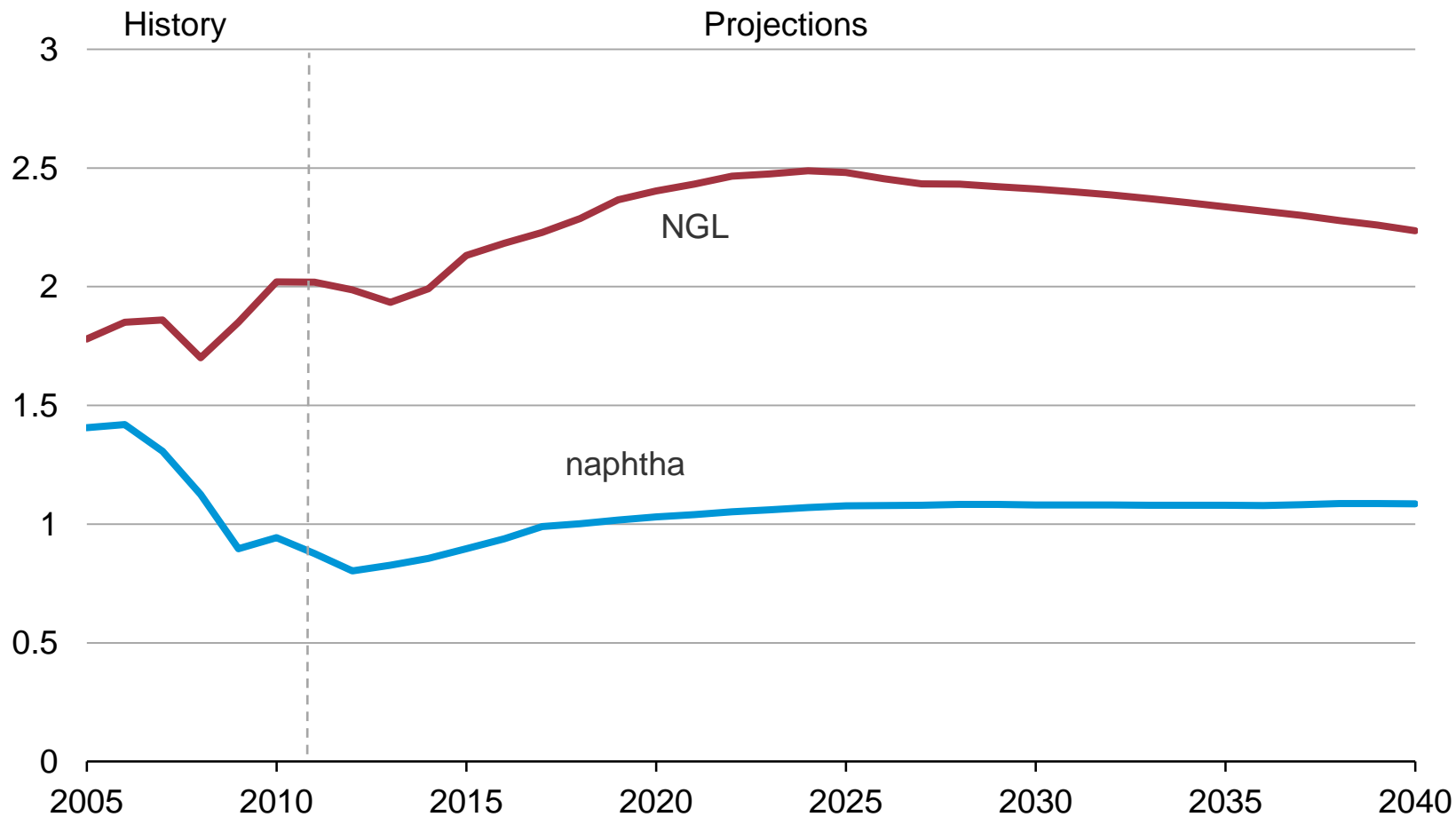
Billion 2005 dollars



Source: EIA, Annual Energy Outlook 2013 Early Release

# Chemical feedstock consumption

Quads



Source: EIA, Annual Energy Outlook 2013 Early Release

## Future representation of chemicals (to include biobased?)

- What are we replacing?
  - Basic organic compounds (bulk chemicals), aromatics (refining), others?
- Quantity of petroleum-based chemicals being replaced
  - Is it relatively significant?
  - Current/future goals for biobased chemicals?
- Fuel & feedstock impact
  - Simplistic approach: feedstock (NGL + naphtha) reduction proportional to relative amount of biobased chemicals
  - What is the impact on heat & power?
  - What is the impact on Liquid Fuels Market Module (LFMM) due to bio-based aromatics?
- Current status/production of biobased chemicals?

# For more information

U.S. Energy Information Administration home page | [www.eia.gov](http://www.eia.gov)

Annual Energy Outlook | [www.eia.gov/forecasts/aeo](http://www.eia.gov/forecasts/aeo)

Short-Term Energy Outlook | [www.eia.gov/forecasts/steo](http://www.eia.gov/forecasts/steo)

International Energy Outlook | [www.eia.gov/forecasts/ieo](http://www.eia.gov/forecasts/ieo)

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Monthly Energy Review | [www.eia.gov/totalenergy/data/monthly](http://www.eia.gov/totalenergy/data/monthly)

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