Assumptions for Annual Energy Outlook 2017: Liquid Fuels Markets Working Group

AEO2017 Liquid Fuels Markets Working Group Meeting #1
Office of Petroleum, Natural Gas, and Biofuels Analysis
August 25, 2016 | Washington, DC

WORKING GROUP PRESENTATION FOR DISCUSSION PURPOSES
DO NOT QUOTE OR CITE AS RESULTS ARE SUBJECT TO CHANGE
Discussion topics

• “Short” AEO2017

• World Oil Price Path

• Assumptions/changes for AEO2017 – petroleum

• Assumptions/changes for AEO2017 – biofuels/non-petroleum
“Short” AEO2017

• In general, restricted to historical data updates and major policy changes

• Can include design updates that help to better represent current events – none are planned for LFMM / IEM

• AEO cases are limited
  – Reference price case
  – High and low price cases
  – High and low economic cases
  – High and low resource and technology cases
Crude oil price lower for AEO2017

Brent crude oil spot price
2015 dollars per barrel

Reference world oil price path significantly lower than last year

• Liquids supply is more optimistic, mostly due to reductions in longer-term expectations of the marginal cost of production

• Liquids demand is mostly unchanged – factors leading to greater demand are offset by other factors that lead to reduced demand
**AEO2017 petroleum assumptions/changes**

- Key assumptions maintained from AEO2016
  - All crude types are allowed to be exported for all cases
  - Maintain methodology for crude price response, and interaction between crude/product prices
  - State level mandates and policies are maintained at AEO2016 levels

- Extend model projection year to 2050

- Annual historical and Short Term Energy Outlook (STEO) data updates
  - September 2016 STEO will be represented
AEO2017 petroleum assumptions/changes (continued)

• Crude and product import and export curve updates
  – For Reference, Oil Price cases, and Resource and Technology cases
  – Extend curves through 2050
  – May require adjustments to how crude and product prices are connected
  – Will pay close attention to impacts on key refinery unit utilization levels

• Existing US refinery capacity from EIA's Petroleum Supply Annual (PSA) not Oil and Gas Journal (O&GJ)
  – Need to establish rules for defining and dividing some PSA refinery unit classifications into categories represented in the LFMM
    • Semi regenerative vs Continuous reformers (done)
    • Hydrogen production vs hydrogen recovery (all production)
    • Distillate hydrotreater, distillate deaeromatizer, catalytic polymerization
**AEO2017 petroleum assumptions/changes (continued)**

- Miscellaneous updates
  - End-use price markup data (based on historical calculations)
  - Motor gasoline and distillate market share data (based on historical calculations)
  - Changes to smooth transition off STEO years for selected items
AEO2017 biofuels/non-petroleum assumptions/changes

• Key assumptions maintained from AEO2016
  – Ethanol and biodiesel tax credits are not extended beyond current end dates
  – GTL, CTL, BTL (xTL Fischer-Tropsch) expansion are restricted until 2025 at the earliest
  – No changes to California low carbon fuel standards (LCFS) representation

• E15 penetration limited to 50% of E10 pool by 2050

• Renewable fuels standards (RFS)
  – Policy updates based on May 2016 NPRM (EPA final ruling not available until November)
  – Will continue to exclude cellulosic-compliant renewable fuel oil and biogas in AEO2017
Contacts

John Staub: john.staub@eia.gov
Mindi Farber-DeAnda: mindi.farber-deanda@eia.gov
Beth May: elizabeth.may@eia.gov
Adrian Geagla: adrian.geagla@eia.gov

Next Working Group Meeting

Tentatively planned for late September 2016.
Will present preliminary results for AEO2017.