September 13, 2016

MEMORANDUM FOR: IAN MEAD

ASSISTANT ADMINISTRATOR FOR ENERGY ANALYSYS

FROM: JOHN STAUB

TEAM LEADER, EXPLORATION AND PRODUCTION TEAM ACTING TEAM LEADER, LIQUID FUELS MARKET TEAM

SUBJECT: First AEO2017 Liquid Fuels Markets Working Group Meeting

Summary (presented on 08-25-2016)

Attendees: (EIA) John Staub, Mindi Farber-DeAnda, Adrian Geagla, Beth May,

John Powell (DOE)

Attending by Phone: Dale Nesbitt (Arrowhead), Antoine Calvez (Arrowhead),

Bryon Just (API), Meghan Gordan (Platts), Dave Schmalzer (ANL),

Niko Kydes (OnLocation Inc), Adam Christensen, K. Strelle,

Wyatt Thompson (FAPRI, University of Missouri)

(EIA) Bill Brown, Dana Van Wagener, Troy Cook, David Manowitz,

Sean Hill

Presenters: John Staub (EIA), Beth May (EIA)

Presentation:

The presentation identified the key assumptions and changes corresponding to the Liquid Fuels Market Module (LFMM) and the International Energy Module (IEM) in NEMS in preparation for AEO2017 analyses. Stakeholders were also informed that this is a "short" Annual Energy Outlook (AEO), which means that AEO2017 cases are limited to seven cases: reference, high, and low price cases; high and low macro cases; high and low resource and technology cases. There also might be an eighth case to represent a no-CPP (no clean power plan) case. A "short" AEO also means updates are limited to historical data and major policy changes, or design updates needed to better represent current events.

The latest available version of the crude oil price path for the reference, high, and low price cases for AEO2017 were presented. Except for STEO years, the high price path was similar to AEO2016. The reference and low price paths were a little lower than for AEO2016, mostly due to reductions in longer-term expectations of the marginal cost of production.

Petroleum-related assumptions in the LFMM and IEM include allowing exports of all crude types, representing current state level mandates and policies, incorporating the same methodology to represent interaction between crude and product prices and price response, and benchmarking to September STEO.

WORKING GROUP PRESENTATION FOR DISCUSSION PURPOSES ONLY. DO NOT QUOTE OR CITE AS AEO2017 MODELING ASSUMPTIONS AND NOTE INPUTS ARE SUBJECT TO CHANGE.

Updates include extending the projection through 2050, generating new crude and product import and export curves as a function of the new world oil price paths, and basic historical data updates.

The following assumptions related to biofuels/non-petroleum production were also maintained: ethanol and biodiesel tax credits are not extended beyond current expiration dates; gas-, coal-, and biomass-to-liquids expansion are restricted until 2025 timeframe; representation of the California low carbon fuel standards (LCFS) remain unchanged. The projected maximum penetration of E-15 is phased in after 2020, limited to a maximum penetration of 50% by 2050. The renewable fuels standards (RFS) are updated based on the May 2016 NPRM, with adjustments to exclude cellulosic-compliant renewable fuel oil and biogas since the LFMM does not model these fuels.

Discussion/questions

EIA asked if there were any updates that the stakeholders would recommend: No response.

EIA announced that the reference case and side cases for AEO2017 are scheduled to be frozen in October 2016, and that the second working group meeting would most likely be held in September 2016. This would give EIA time to incorporate feedback/observations from stakeholders before the October freeze.

A question was asked regarding assumptions related to the CAFE Standards. EIA responded that this was being taken care of in the transportation module, so the transportation modeling team can better answer that question; however, we know that they incorporated the heavy duty diesel rule in AEO2016. EIA said they would make sure the stakeholder knew when the working group meeting for the transportation model was being held, and that they would receive an invitation.

No other questions.

Actions to be taken in response to the discussion above:

- Send date and invitation for transportation working group meeting to Stakeholder: EIA notified the transportation modeling team; invitation was sent and accepted.

Next LFMM Working Group meeting: tentatively, middle to late September 2016