

November 30, 2015

MEMORANDUM FOR: JOHN CONTI
ASSISTANT ADMINISTRATOR FOR ENERGY ANALYSYS

MICHAEL SCHAAL
DIRECTOR, OFFICE OF ENERGY ANALYSIS

JOHN POWELL
TEAM LEADER, LIQUID FUELS MARKET TEAM

MINDI FARBER-DeANDA
TEAM LEADER, BIOFUELS & EMERGING TECHNOLOGIES
TEAM

FROM: LIQUID FUELS MARKET TEAM

SUBJECT: First AEO2016 Liquid Fuels Markets Working Group Meeting
Summary (presented on 11-19-2015)

Attendees: (EIA) John Conti, Michael Schaal, John Powell, Mindi Farber-DeAnda,
Adrian Geagla, Beth May, Mason Hamilton, Hannah Breul,
Chris Namovicz, Melissa Lynes

Austin Brown (OSTP), Ernest Carter (FAS/USDA),
Dave Hirshfeld (MathPro), Bryan Just (API)

Attending by Phone: Adam Christensen, Erica Folio (US DOE), Jennifer Li (US DOE),
Niko Kydes (OnLocation Inc), Sandy Sanders (OnLocation Inc),
Leticia Phillips (UNICA), Joanne Shore (AFPM),
Morgan Summers (NETL),
(EIA) Faouzi Aloulou, Mike Cole, David Manowitz

Presenters: John Powell (EIA), Mindi Farber-DeAnda (EIA)

Presentation:

The presentation was broken into two topic areas: petroleum and biofuels/non-petroleum. The petroleum-related assumptions/updates were presented by John Powell (EIA team leader of the Liquid Fuels Markets Team). John's presentation described crude oil export assumptions, improved representation of product import/export curves, a new methodology that captures the impact of net crude and product imports on "rest of world" crude supply curves, a plan to review pipeline, rail, and vessel capacity and tariff data (will not include the Keystone XL pipeline capacity), an improved methodology for pricing fuel oil to electric utilities in Census Division 9, and plans to improve STEO benchmarking of product prices. The biofuels/non-petroleum assumptions/updates were presented by Mindi Farber-DeAnda (EIA team leader of the Biofuels & Emerging Technologies Team). Mindi discussed EIA's efforts to develop/update capital

investment data for liquid fuels production technologies, which included workshops with area experts, and separate discussions with specialized companies – like GEVO to inform biobutanol investments. This has culminated in the development of an “Engineering Economic Analysis Guide” to document capital investment decision analysis in LFMM to be released when it becomes available. Mindi announced that the LFMM plans to incorporate the new RFS rule for the years 2014, 2015, and 2016 that EPA released on November 30; however, the model will continue to exclude the renewable fuel oil and biogas representation in the RFS for AEO2016. EIA is investigating the representation of new California LCFS provisions. EIA will also review E15 market penetration assumptions, and update if appropriate.

Discussion/questions

There was some interest in the schedule for this year’s AEO, and which side cases were planned that affect liquid fuels. Preliminary results for the reference case are expected around March/April, with additional scenarios to follow, and final report in June 2016. Side case options are currently under review, so nothing is final or ready for release at this point in time. Currently, there are no plans for a “high technology” case related to biofuels production, but there will be a high resource case (high technology assumption for petroleum supply). An attendee suggested EIA speak with other DOE offices about some ideas for additional cases. Assistant Administrator for Energy Analysis indicated that EIA would not be entertaining suggestions for additional NEMS scenarios as resources are limited and the schedule is abbreviated.

A main focus of interest was on renewable fuels feedstock prices and technology representation. EIA explained that a separate model (POLYSIS, adapted for NEMS beginning with AEO2015) provides the biomass supply curves (corn, soybean, seed oil, but not woody biomass) to the LFMM. The advantage of this separate model is that it keeps supply stable from year to year and coordinates consumption with electric generation uses. A suggestion was made that EIA talk to Paul Westcott (USDA/ERS) to get more recent updates on land availability assumptions so that both USDA and EIA’s assumptions will be in sync with one another. It was noted that lower petroleum prices can impact longer term land values and encourage a move to different feedstock. A USDA report will be released in February 2016, but this will be too late for AEO2016. This can be brought up in a separate EIA working group meeting for Renewables/Electricity, to be held by Chris Namovicz on December 7, 2015.

Another topic of interest centered on higher ethanol blend gasoline and corresponding vehicle demands for the high ethanol blends. Melissa Lynes (an EIA transportation modeler) suggested that the real barrier was delivery infrastructure. The conversation expanded to biogas and compressed NG in long-haul heavy duty vehicles, to which EIA responded that this will not be modeled for AEO2016.

A question was asked if final decisions on updates related to LCFS, E15 penetration, technology costs, etc. will be published or posted before the AEO is released. This information typically is a part of the Assumptions Document released a month or two after the AEO final release; however, this information could be made available as part of the second LFMM working group meeting. Attendees discussed California’s appetite for sugarcane ethanol imports from Brazil and renewable diesel imports from Neste facilities in Europe and Asia. EIA confirmed that the LFMM will update the new carbon intensity (CI) for sugar cane ethanol.

Actions to be taken in response to the discussion above:

- A suggestion was made to Chris Namovicz (renewables/electricity team) to contact Paul Westcott to get more recent update on feedstock information/land availability assumptions prior to public release.

Next LFMM Working Group meeting: March 2016