

March 11, 2016

MEMORANDUM FOR: JOHN CONTI  
ASSISTANT ADMINISTRATOR FOR ENERGY ANALYSIS

PAUL HOLTBERG  
TEAM LEADER  
ANALYSIS INTEGRATION TEAM

JIM TURNURE  
DIRECTOR  
OFFICE OF ENERGY CONSUMPTION AND EFFICIENCY  
ANALYSIS

FROM: TRANSPORTATION CONSUMPTION AND EFFICIENCY  
ANALYSIS TEAM

SUBJECT: Second AEO2016 Transportation Working Group Meeting Summary  
(presented on 03-09-2016)

Attendees: Mindi Farber-DeAnda (EIA)  
David Stone (EIA)  
Alicia Birky (Energetics)  
Austin Brown (NREL)  
David Gohlk (DOE)  
Marc Goodman (New West Technologies)  
Ken Katz (DOT)  
Therese Langer (ACEEE)  
Michael Laughlin (Energetics)  
Rachael Nealer (DOE)

Attending by phone: Giedrius Ambrozaitis (Auto Alliance)  
Megan Beardsley (EPA)  
Daniel Bizer-Cox (EPA)  
David Choi (EPA)  
Ed Coe (EPA)  
Andrew Eilbert (EPA)  
Sarah Garman (DOE)  
Walter Gazda (DOT/Volpe)  
Kevin Green (DOT/Volpe)  
Christopher Grillo (IHS)  
Ken Howden (DOE)  
Brianna Jean (DOT/Volpe)  
Ryan Keefe (DOT/Volpe)  
James Kliesch (Honda)  
Jennifer Li (DOE)  
Devi Mishra (EIA)  
Chris Nevers (Auto Alliance)

Michael Olechiw (EPA)  
Steve Plotkin (ANL)  
Mike Samulski (EPA)  
Ashok Sekar (RIT)  
Thomas Stephens (ANL)  
John Van Schalkwyk (DOT/Volpe)  
Anant Vyas (ANL)  
Eric Williams (RIT)  
Frances Wood (On Location)  
Yan Zhou (ANL)

Presenters: John Maples  
Melissa Lynes  
Mark Schipper

**WORKING GROUP PRESENTATION FOR DISCUSSION PURPOSES ONLY DO NOT QUOTE OR CITE AS RESULTS SUBJECT TO CHANGE**

The working group presentation provided a discussion of the preliminary projections for AEO2016 Reference case. An overview of the projections discussed is included in the presentation materials provided as a separate attachment.

Specific discussion/questions:

1. Will the Phase 2 heavy-duty vehicle model take into account tractor trailers?
  - a. For this AEO we will not include trailers in our analysis. We do not have a solid enough understanding of how trailers are utilized since there are significantly more trailers than tractors. We are in discussions with IHS Polk to better understand this subject.
2. Was car diesel fuel economy and performance characteristics updated to reflect current emissions compliance issues?
  - a. No. We are paying attention to how these might be affected and will adjust as necessary.
3. What range of EVs are being modeled?
  - a. Currently we are modeling 100 and 200 mile range electric vehicles. Due to the structure of the model it would be difficult to add all possible driving ranges, however as the electric vehicle market develops we may consider adding more ranges.
4. Does range matter in electric vehicle ZEV credits?
  - a. The model currently takes a simplistic approach giving all ranges the same credits.
5. Does the model allow the electric vehicle tax credit to expire due to cumulative sales limits?
  - a. The model has representative manufacturers that face expiring tax credits as the maximum allowable credits are achieved.
6. Are battery costs updated annually?
  - a. The last time electric vehicle battery cost were updated was in 2014.
7. Can any hybrid vehicles use E85?
  - a. Hybrids can only use E10 or E15.

8. For this AEO is there time to reevaluate electric vehicle battery costs?
  - a. Not for this AEO, but if someone has updated battery cost information we can make the update for AEO2017.
9. Is the model choosing natural gas because it is a cheap fuel?
  - a. Natural gas vehicles receive AT-PZEV credits in California and Section 177 states, so there is an increase in natural gas vehicles in these states. Otherwise, the determination to purchase these vehicles is primarily based on cost and fuel availability within a probability model framework.
10. Due to the MARPOL regulation, do ships keep reservoirs of both residual fuel oil and distillate fuel oil on the ship?
  - a. Yes, many ships run on residual oil in international waters and will switch to distillate when they come within 200 nautical miles of the U.S.
11. Was the fuel availability report for the MARPOL analysis provided by International Maritime Organization (IMO)?
  - a. Yes, the IMO Secretariat was requested to initiate the review by September 1, 2015, with a view to the final report of the fuel oil availability review being submitted to Marine Environment Protection Committee 70th session as the appropriate information to inform the decision to be taken by the Parties to MARPOL Annex VI.
12. On slide 27, the numbers do not add up.
  - a. This is because commercial light trucks are not included.
13. Is the Phase 2 HDV GHG regulation included in the reference case?
  - a. No. Since this is not a current law an analysis of the potential impacts it will be included as an Issues in Focus article.
14. Are we thinking about the potential impacts of automated vehicles?
  - a. Yes. We are commissioning a study this year looking into travel and energy impacts of automated vehicles.
15. Does distribution of vehicles sales across size classes change over time?
  - a. The model allows the distribution to change over time based on fuel prices and other factors.
16. Does the model show shifts in size classes due to CAFE standards?
  - a. Currently the model considers differences in compliance costs across size classes and these are relatively the same through the projection. There is not a modeled shift among size classes due to consumer saturation of fuel economy improvement.