

November 9, 2017

**MEMORANDUM FOR:** Ian Mead  
Assistant Administrator for Energy Analysis

**FROM:** James Turnure  
Director of Office of Energy Consumption and Efficiency Analysis

Kelly Perl  
Team Lead, Industrial Energy Consumption and Efficiency Analysis

**SUBJECT:** Summary of the second AEO2018 Industrial Working Group Meeting,  
September 28, 2017

This memorandum provides an overview of presentation given at the second AEO2018 Industrial Working Group meeting and a summary of the discussion that followed. The meeting covered preliminary results for the Industrial Demand Module (IDM) of the National Energy Modeling System. The full presentation is available under separate cover.

#### **Preliminary results**

These results are based on updates outlined in the first working group: the 2014 Manufacturing Energy Consumption Survey (MECS), State Energy Data System, combined heat and power cost projections, and capacity and generation data. As of the date of the meeting, chemical feedstock projections, and physical steel and aluminum output for 2014 through 2016 had not been updated.

Energy consumption grows at 1.2%/yr and total industrial shipments grow at 1.7%/yr over the period of 2017-2050, consistent with declining energy intensity. While energy intensity declines in both preliminary AEO2018 results and AEO2017, energy intensity is higher in the preliminary AEO2018 results than AEO2017. In preliminary AEO2018 results, energy intensive manufacturing had a larger share of shipments than in AEO2017.

Natural gas energy consumption shares are similar between the preliminary AEO2018 results and AEO2017—about 40% throughout the projections. Renewables share is slightly higher in the preliminary AEO2018 results than AEO2017.

Combined head and power in particular is higher than last year, especially for bulk chemicals because bulk chemicals shipments are markedly higher than last year.

#### **Discussion**

A question was asked about the Current Account balance. The IDM does not take into account the Current Account balance, but trade is an issue that does interest the team and may occupy its time in the next few years.

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A question was asked related to release timing. Staff indicated that the current plan was to release AEO2018 in January 2018 with the Reference and core side cases. In addition, the format will be similar to the AEO2017. Later in 2018, Issues in Focus articles and non-core side cases will be released.

A meeting participant noted that the 2017 ACEEE state energy scorecard, which is used in part to regionally allocate CHP capacity in the IDM, was about to be released.

There was a question about how the IDM modeled regions. The IDM models the four Census regions. For example, Regional differences in shipments drive regional energy use. The IDM does not model at the state level. In particular, the impact of California's GHG regulations (AB32) cannot be modeled at the state level in the IDM. The impact of AB32 on GHG emissions must be modeled as part of Region 4 GHG impact.

There was a question about the outlook for the paper industry in the long run. Staff indicated that paper shipments were trending upwards in the long run, unlike last year.

### **Attendees**

#### **Guests (in person)**

Robert Hershey  
Keith Jamison

#### **Affiliation**

Robert L. Hershey, P.E.  
Energetics

#### **Guests (registered on WebEx)**

Andrea Gensler  
Angelina LaRose  
Colin McMillan  
Elke Hodson  
Eric Masanet  
Frances Wood  
Francesco Memoli  
Jerry Schwartz  
Jill Quick  
John Meyer  
Neal Elliott  
Sugandha Tuladhar  
William Morrow

#### **Affiliation**

Bureau of Labor Statistics  
EIA  
NREL  
DOE  
Northwestern University  
OnLocation, Inc.  
TenoVA Inc.  
AF&PA  
RBAC Inc.  
Leidos  
ACEEE  
NERA  
Lawrence Berkeley National Laboratory

#### **EIA Attendees (in person)**

Vipin Arora  
Paul Otis  
Kelly Perl  
Matthew Skelton