

September 1, 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 of Industrial Efficiency and Consumption Analysis

**SUBJECT:** Summary of AEO2018 Industrial Working Group Meeting, Part I held on August 1, 2017

**OBJECTIVE:** Minutes from the First Industrial Working Group Meeting.

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 updates to the National Energy Modeling System with a particular focus on changes related the industrial sector and their expected impacts on the analysis. The full presentation is available under separate cover.

#### **Model updates**

The presentation included the following highlights in regard to the side cases and current regulations that are likely to be included in AEO2018:

- Current laws and regulations are in place are in the Reference case. Particular areas of interest include current California carbon and Boiler Maximum Achievable Control Technology policies.
- EIA will continue to monitor whether the Clean Power plan will remain in Reference case for AEO2018.
- One of the side cases may consider an extension to the combined heat and power (CHP) tax credits that expired in 2017, which may have an effect on energy use in the industrial sector.

The presentation also highlighted the following updates where either current work was occurring or planned future work was expected:

- New input file for the five process flow industries (paper, glass, cement & lime, iron & steel, aluminum) were being developed.
- Detailed unit energy consumption and technology possibility curves for end use industries were being updated.

Mention was also made of the following data updates:

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- Renewable and non-biogenic waste fuel allocation in cement, agriculture, and food using data collected from U.S Geological Survey and Environmental Protection Agency 's Greenhouse Gas Reporting System for these industries
- New CHP cost and type data
- Biennial data update for CHP capacity and generation from Forms 860 and 923

## **Discussion**

Some discussion after the presentation revolved around the sources of physical data and will EIA be using Federal Reserve Industrial tables as a data source. EIA staff indicated that they would provide the lists to anyone interested after the meeting.

Some people wondered whether physical units could be provided as an output of the model. EIA staff indicated that predicting physical output over the entire projection period is difficult and the exercise is fraught with measurement issues when looking beyond a handful of industries, so the agency does not officially release such information as part of the AEO. However, process flow industries do have measures of output associated with them that are included as part of the technology choice results that are available upon request.

There was a discussion of what policy cases could be used. EIA staff stated that there is a possibility of a "low" and "high" policy case, although the details of these side cases still needed to be decided upon.

Additionally, there was also a discussion of how macroeconomic conditions are connected to the energy sector. Some people thought that because unit energy consumption declines over time, long-term U.S. macroeconomic growth might increase as a result. While this is a possibility, EIA staff indicated that the United States may not necessarily become more competitive in that regard because other countries may reap the rewards of lower energy intensity as well and there are many other factors that are traditionally thought of as determinants of long-run economic growth.

## **Attendees**

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

Aaron Bergman  
 Joe Cresko  
 Robert Hershey  
 Keith Jamison  
 Collin McMillian  
 Sydney Menees  
 Peri Utley

### **Affiliation**

DOE-EPISA  
 DOE-AMO  
 Robert L. Hershey, P.E.  
 Energetics  
 NRFL  
 DOE\_EPISA  
 NGSA

**Guests (WebEx/phone)**

Nate Aden	World Resources Institute
Mark Bahner	RTI International
Paul Bernstein	NERA
Gerard Cunningham	Noble Americas
Elizabeth Dutrow	EPA
Neil Elliott	ACEEE
Ron Gecan	CBO
Matthew Hansen	National Energy Board Canada
Elke Hodson	DOE-EPSC
John Larson	Rhodium Group
Robert Lung	ORAU
Francis Memoli	Tenova Inc.
John Meyer	Leidos
Shashank Mohan	Rhodium Group
Martha Moore	American Chemistry Council
William Morrow	Lawrence Berkeley National Laboratory
Jill Quick	RBAC Inc.
Michael Russo	Itron
Sugandha Tuladhar	NERA
Walt Tunnessen	EPA
Davis Turpin	Agenda 2020

**Affiliation****EIA Attendees (in person)**

Bob Adler  
Vipin Arora  
Christopher Dickerson  
Tom Lorenz  
Ian Mead  
Farah Naz  
Paul Otis  
Kelly Perl