

MEMORANDUM FOR: John Conti

Assistant Administrator for Energy Analysis

Alan Beamon

Office Director, Office of Electricity, Coal, Nuclear, and Renewables Analysis

FROM: Chris Namovicz, Renewable Electricity Analysis Team

SUBJECT: AEO2014 Renewables Working Group Meeting

This Renewables Working Group meeting on July 9, 2013 was the first of two, and focused on the assumptions and modeling efforts that EIA plans on using as the starting point for its AEO 2014 renewable electricity projections. The meeting was attended by staff from EIA, DOE Offices of Energy Efficiency and Renewable Energy and Policy and International Affairs, National Laboratories, and stakeholders from industry trade groups. The meeting was held in the Forrestal Building, and included participation via a teleconference and web-cast.

Chris Namovicz of EIA led off the meeting by reviewing the roll-out for AEO 2013. Chris noted that the document was divided into several sections and released over a period of a few weeks. While there was still an early release of the Reference case in December, there were no significant changes to this Reference case in the final release during April and May. Chris noted that this staged release would likely be the model used to release the AEO 2014. He also noted that because of its late passage, the AEO 2013 Reference case did not include the PTC extension, but that the final release did contain a case examining its impact, and that this case would serve as a "current laws" Reference case for post-AEO analyses.

Chris and other EIA staff then discussed various updates to the model structure being worked on for AEO 2014. Chris noted that EIA had lost its primary biomass analyst, but that we are still planning on including a fully endogenous version of POLYSYS in the NEMS model for AEO 2014 to improve the modeling of biomass resources for the power sector and for the production of cellulosic biofuels. In response to a question from an EIA stakeholder, Chris noted that we would not likely have a full accounting for conventional crops, such as corn or soy, for the AEO 2014, but that work would continue on the project to ensure their inclusion.

Gwen Bredehoeft discussed work she is doing to improve the interface between the electricity dispatch models and end-use solar market. Currently, the ECP and EFD dispatch models do not see an accurate representation of the time-of-day and seasonal output from solar in the end-use markets. Gwen will be adjusting the interface with the Commercial and Residential buildings models so that the EMM will have a better representation of the impact this generation could have on electricity demand and supply at high penetration levels.

Chris Namovicz then moved to work EIA was doing to represent wind intermittency. The current work involves the modeling of operating reserves. Once operating reserves are represented in the EMM the

model can evaluate the impact of variable, non-dispatched resources on the need for more or different kinds of capacity that may be used to provide spinning and other operating reserve services. Chris noted that the work was funded relatively late in the AEO process and may not be completed for the AEO 2014.

Owen Comstock provided an overview of work being done to model end-use solar. Owen noted that there were no big projects in the works, but that they would be updating their core data sets for interconnection limits and baseline capacity and generation. A stakeholder asked about the financing assumptions used for end-use solar, and specifically if we modeled customer-owned or third-party leased systems. Owen noted that we do model customer-owned installations, but have considered moving the model to third-party leases, but did not expect to include this representation in the AEO 2014. Another stakeholder noted that third party leases may account for as much as 70 percent of the current end-use market.

Michelle Adams updated the group on activities to develop hydro data for the EMM. Specifically, she talked about work to evaluate the FERC hydro relicensing queue to get a better handle on the current and future potential for capacity and energy “uprates” at existing hydro plants.

Chris Namovicz and Gwen Bredehoeft discussed policy issues that EIA expects to impact the AEO 2014. Chris noted that we will be including the PTC extension in the AEO 2014 Reference case, although the change in “in-service” eligibility might make it more difficult to evaluate the current project planning queue. Gwen noted that it is likely that there will be minor changes to state RPS policies this year and that none of the efforts to repeal these policies has succeeded so far. Finally, Chris noted that the President’s recently announced plans to address greenhouse gas emissions did not constitute formal government policy and would not be included in the AEO Reference case until they are formally enacted as regulations.

Gwen also addressed EIA efforts to identify near-term renewable electricity projects in the development pipeline. EIA includes all plants known to be “under construction” as part of the AEO. In addition, in previous years, EIA has included plants (especially renewables) facing near-term expiration of key Federal tax credits if they are reported to EIA as “having regulatory approvals”, but not necessarily under construction. This policy may need to be reconsidered in light of the changes to the PTC eligibility criteria. Gwen noted that our planned additions will be similar to AEO 2013, but that we are seeing a significant uptick in new solar construction.

Finally, Chris noted that we would not be updating the “SAIC/Beck” capital cost study for generating technologies in AEO 2014. Funding for this effort is not likely to be available every year, but that EIA would try to fund it every few years. In the interim, EIA will be looking for solid evidence of significant movement in the cost of different generation resources.