

Please use the following questions to guide your feedback on the MTEP16 Futures Kickoff presentation given at the October 15, 2014 meeting of the Planning Advisory Committee (PAC). Please provide responses to David Van Beek (DVanBeek@misoenergy.org) by November 5, 2014.

<https://www.misoenergy.org/Events/Pages/PAC20141015.aspx>

10-15-2014 PAC Item 05 MTEP16 Futures Kickoff

1. Future 1 – Business as Usual
 - a. Should any additional considerations be given in a Business as Usual-type scenario?

2. Future 2 – High Demand and Energy Growth
 - a. What does your sector view as the main potential driver for high demand and energy growth?

The OMS Regional Planning Work Group (RPWG) does not believe there is one main driver for high demand and energy growth. High demand and energy growth occurs as the economic business cycle moves toward full employment and output.

- b. How should MISO determine the magnitude of the growth?

As MISO did last year, it should use the upper bound of the Load Forecast Uncertainty to determine the magnitude of the high growth that is modeled.

- c. Any additional considerations to be given in a high demand and energy growth scenario, such as location specific step-change growth?

*The RPWG recommends that this Future be styled as “Strong Economy”. All of the variable values in this Future should be consistent with a strong economy
If MISO uses a centralized or statistical load forecasting method, it will need to consider location-specific or utility-specific adjustments.*

3. Future 3 – Low Demand and Energy Growth
 - a. What does your sector view as the main potential driver for low demand and energy growth?

The OMS RPWG does not believe there is one main driver for low demand and energy growth. Low demand and energy growth occurs in conjunction with a weak economy overall.

- b. How should MISO determine the magnitude of the growth?

As MISO did last year, it should use the lower bound of the Load Forecast Uncertainty to determine the magnitude of the high growth that is modeled.

- c. Any additional considerations to be given in a low demand and energy growth scenario?

The OMS RPWG recommends that the Future be styled as “Weak Economy”. All of the variable values in this Future should be consistent with a weak economy.

4. Future 4 – Carbon Restrictions

- a. How should MISO model potential future carbon emissions reductions?
i. Model after proposed 111(d) or some alternative?
ii. Regional or subregional approach?

This is a difficult question given the timeline that MISO follows in developing the model runs for each MTEP. It would be ideal if MISO could incorporate the final EPA rule, which is expected in June of 2015. Failing that, MISO should use the proposed Clean Power Plan for this future.

- b. Any additional considerations such as increased energy efficiency, carbon cost/cap, additional retirements of non-coal generators?

5. Future 5 – Increased Renewables / Advanced Technology

- a. Does your sector see any potential for increased renewables beyond state mandated levels?
b. Does your sector see advances in technology surrounding energy efficiency or distributed generation as having a material impact on the future?

The OMS RPWG would like to note that MISO should strongly consider input from any state regarding MISO’s assumption about the state’s modeled EE and DR level. MISO should be careful in interpreting what constitutes a “mandate” in a state.

- c. Any other technology advances in areas such as carbon capture and sequestration or small modular reactors that should be given consideration?

The RPWG notes the difficulty in this question as technological advances can increase or decrease customer load. We believe that the increased use of plug-in electric vehicles could be considered in this future. This would increase energy use and perhaps more importantly could change the load shape. On the other hand, the increased use of DR and EE would reduce energy use, and again importantly could change the load shape. The RPWG emphasizes and welcomes a discussion with MISO and the stakeholders on how this future could change load shapes, which would ultimately change the requirements for the transmission system.

On the supply side, many industry participants believe that renewable energy will become more economical as a resource. Of course there is a difference as to whether it is customer-owned or utility-owned. In addition, an increasing amount of storage resources could participate in MISO's markets. The RPWG looks forward to stakeholder discussions to develop the details of this future.

6. Scenario Weights Proposal

- a. Does your sector agree with the proposed methodology for setting the weights of the various MTEP futures?

The RPWG does not agree with the proposed weighting for the MTEP16 Futures.

- b. Any alternative ideas on how MISO should determine scenario weights?

The RPWG proposes that each of the ten sectors weight the Futures as has traditionally been done, and that MISO discard the Low and High weighting for each Future and conduct a simple average on the remainder.

7. Please provide any other general feedback on the futures and assumptions mix proposed by MISO, such as alternative futures or drivers.

It is too early in this process to answer this but we look forward to the discussion.

8. Does your sector believe a workshop devoted to futures assumptions development would be beneficial?

Yes, the RPWG supports a workshop devoted to futures assumptions development. However, we believe such a workshop should be a special Planning Advisory Committee

MTEP16 Futures Kickoff comments Version 3– FINAL
OMS Regional Planning Work Group
November 5, 2014

meeting so that the discussion is meaningful and actionable per the MISO Stakeholder Governance Guide.