July 9, 2014
Docket No. INU-2014-0001
MidAmerican Energy Company

MIDAMERICAN AVOIDED COST WORKSHOP
OFFICE OF CONSUMER ADVOCATE
FOLLOW UP QUESTIONS

FILED WITH
Executive Secretary
July 09, 2014
IOWA UTILITIES BOARD

Additional Information Requested from MidAmerican

1. Please provide information requested of MEC by other participants in the avoided cost workshop.

   Response – See MidAmerican Energy Company (MEC) response to Follow-Up Questions dated July 9, 2014.

2. Please provide MEC's Promod input files and assumptions used to generate avoided cost for its upcoming PURPA filing. Identify material differences in inputs and assumptions used for current resource planning decisions.

   Response – See Attached Confidential Exhibit 1. The avoided energy costs were calculated based on current assumptions and plans.

3. When calculating avoided energy cost using ProMod simulation, MidAmerican uses marginal cost for Standard QF Rate (Under 100 kW), but uses blocks, such as 50, 100, and 200 MW, for PURPA avoided cost biennial filing. Explain if the energy avoidance determined in blocks used a load factor of 100% and whether this is reasonable for estimating energy avoided with a PURPA purchase.

   Response – The calculation of the avoided energy costs using the blocks of 50, 100, 150 and 200 MW assumed the same block decrement for all hours of the year. MEC believes this calculation is reasonable for PURPA requirements where the type of resource is unknown. Customer-specific factors are included when negotiating purchases, including consideration of expected hourly generation output.

4. In the most recent Energy Efficiency Proceeding (EEP), OCA questioned whether a flat 25 MW load block used to determine avoided energy cost for energy efficiency programs represents MidAmerican's energy efficiency program load profile. The OCA suggested that MidAmerican use either a marginal cost or a true load profile for all energy efficiency programs. Please explain whether MidAmerican believes a 25 MW block is more representative than other load levels and whether MidAmerican will continue to recommend this basis for estimating avoided energy costs.

Response – MEC believes this calculation is reasonable since the referenced avoided energy costs are used merely as a base set of avoided energy costs. These avoided costs must be developed before the specific energy efficiency measures that will included in the plan are determined. Load shapes specific to each energy efficiency measure are applied to the base avoided energy costs to determine cost-effectiveness of each measure. This results in higher overall avoided energy costs for measures such as central air conditioning that save more energy at times when energy costs are highest than for measures such as lighting that save energy primarily in off-peak periods.

5. Explain how demand loss factors for generation, transmission, and distribution are determined. Should generation and transmission components be modified by the sum of both transmission and distribution loss factors since transmission systems provide energy to distributed systems including distribution losses?

   Response – MEC's PURPA rate filings are for general application and are not evaluated on specific or hypothetical locations and load growth. Additionally, the avoided capacity cost methodology considers capacity credits that could be made available in the MISO market. In MISO's Planning Resource Auction, loss adjustments in the Module E Capacity Tracking Tool are made for load, but transmission loss adjustments are not made for capacity resources.

6. OCA proposed to use forward-looking MISO Attachment O rate to determine transmission capacity avoided costs in the last round of Energy Efficiency Proceedings. The MISO Attachment O rates are determined after considering return on equity, income taxes, depreciation, operation and maintenance costs, and many other factors. The rate reflects costs that customers pay for transmission services. Please explain whether MidAmerican believes it would be reasonable to use the MISO Attachment O rate explicitly to determine avoided transmission capacity cost?

   Response – MidAmerican first clarifies that MidAmerican's retail customers served from the MidAmerican transmission system do not pay the MISO Attachment O rates. Interstate Power and Light's (IPL) retail customers pay the MISO Attachment O rates for service within the ITC Midwest transmission system; thus, the OCA's proposed approach may therefore be appropriate under IPL's construct. However, MidAmerican's retail customers pay a bundled rate inclusive of MidAmerican-owned transmission costs as determined through traditional cost of service allocations. Only a very small portion of MidAmerican-owned transmission costs associated with regionally cost-allocated transmission projects will be paid by retail customers through a transmission tracker mechanism; such amount is only about 4% - 4.5% of the regional project costs and the vast majority of total transmission costs remain in bundled rates. MidAmerican therefore believes that the traditional approach it has used for determining transmission costs remains consistent with the costs recovered in bundled rates.

In addition to the above conclusion concerning consistency, there are a number of other matters to be resolved regarding the use of the MISO Attachment O rates including (1) the ROE in the MISO Attachment O rates is different than the assumed ROE in the traditional cost approach, (2) the MISO Attachment O allocates a portion of MidAmerican's general and common plant amounts to transmission rate base, (2) The MISO Attachment O allocates a portion of MidAmerican's general and administrative expenses to transmission, and (3) the MISO Attachment O allocates a portion of MidAmerican's accumulated deferred income taxes to transmission rate base. All of these allocations create the potential for double-counting costs if the template were to be used without significant modification.

7. Provide a detailed methodology for MEC's assumptions used in calculating the economic carrying charge for the peaker method, including but not limited to:
    a. What are the tax life (in years) and Book life (in years) used in calculating economic carrying charge in the peaker method? Explain why these particular years are chosen.
    b. What ROE and capital structure will be used and what is the basis for these selections (e.g., what is approved in MEC's most recent general rate case?)

Response – The attached file "ECC and NPV 2012.xlsx" provides the assumptions used to determine the economic carrying charge for the peaker method. Also attached is the MISO CONE filing "ER11-4185 CONE File.pdf" which provides the peaker cost. The tax life is 15 years as prescribed by the Internal Revenue Code. Prior to the June 2014 filing, the book life was 25 years. Book life was revised to 30 years in the biennial filing made in June 2014. The 30-year value is consistent with vendor-supplied data. The biennial filings do not use weighted average cost of capital figures from the most recent approved general rate case. The capital structure and ROE are determined similarly to how they would be in a rate case, but are adjusted with each biennial filing to reflect market conditions at the time of filing. The ROE used is that which would be applied to assets not subject to ratemaking principles.

8. Please provide docket references to the most recent avoided cost filings made by MEC in its other retail jurisdictions. Is MEC's methodology for avoided cost filings in other retail jurisdictions consistent with what it uses in Iowa? Please explain differences and whether such differences result from changes or assumptions ordered by the public utility commission.

Response – The avoided energy rates published by MEC are calculated based on the operation of the current and forecasted MEC generating resources and contract purchases to serve MEC projected retail energy requirements for the current calendar year and each of the next 5 years. The same methodology is used for the individual states (Iowa, Illinois and South Dakota) filing requirements. Iowa and South Dakota biennial avoided cost filings are identical. Illinois requires an annual filing requirement. The avoided cost methodology in Illinois is the same as Iowa but the financial and generating unit operating parameters are updated based on current MEC

assumptions in those years when no filing is required in Iowa, as explained in the MEC presentation on June 5, 2014.

Iowa – Last filing August 3, 2012 – Docket No. TF-2012-0574 (no filing in 2013 or 2014)
Illinois – Docket No. ERM-14-092, filed June 27, 2014
South Dakota – Docket No. EL14-062, filed July 2, 2014

Other Questions Recorded by MEC During the June 5, 2014 Presentation

9. Are CO2 emission allowance costs included in the Fall 2012 Energy Efficiency Filing?

   Response – Yes, CO2 is included at $[redacted] per ton of CO2 emissions beginning in January 2022.

10. FERC docket for September 2013 MISO filing?

    Response - See attached file for ER13-2310-000 Annual Calculation of the Cost of New Entry value ("CONE") for each Local Resource Zone ("LRZ") in the MISO Region of Midcontinent Independent System Operator, Inc.