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Honorable Kimberly D. Bose
 Secretary
 Federal Energy Regulatory Commission
 888 First Street, N.E.
 Washington, D.C. 20246

FILED WITH
Executive Secretary
July 09, 2014
IOWA UTILITIES BOARD

**Re: Filing of Midcontinent Independent System Operator, Inc. Regarding LRZ
 CONE Calculation; FERC Docket No. ER13-____-000**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act (“FPA”), 16 U.S.C. § 824d, Part 35 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) regulations, 18 C.F.R. § 35, et. seq., and in compliance with Section 69A.8 of the Midcontinent Independent System Operator, Inc.’s (“MISO”) Open Access Transmission, Energy and Operating Reserves Markets Tariff (“Tariff”), MISO respectfully files the annual calculation of the Cost of New Entry value (“CONE”)¹ for each Local Resource Zone (“LRZ”) in the MISO Region.

I. BACKGROUND

On April 21, 2010, the Commission issued an “Order on Compliance Filing” directing MISO to file a permanent solution to ensure the deliverability of Load Modifying Resources in MISO’s voluntary capacity auction.² On June 8, 2010, the Commission issued a Market Mechanisms Order which required, in part, that MISO and its stakeholders develop a plan that details the steps that will be taken to incorporate locational capacity market mechanisms into the Resource Adequacy Plan and to submit its plan and a discussion of stakeholder perspectives to the Commission.³

On July 20, 2011, MISO filed proposed revisions to its resource adequacy construct with the Commission by proposing a permanent solution to ensure the deliverability of Load Modifying Resources in MISO’s voluntary capacity auction and to incorporate locational capacity market mechanisms, as contained in proposed new Module E-1 to the Tariff. The Commission conditionally accepted in part, and rejected in part, MISO’s July 20, 2011 filing and required MISO to submit a compliance filing on various issues. MISO submitted a proposed

¹ Capitalized terms not otherwise defined herein have the meanings ascribed thereto in Section 1 of the Tariff.

² *Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,057 at P 19 (2010).

³ *Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,228 at P 24 (2010).

compliance filing on July 11, 2012 in Docket No. ER11-4081-002, which is currently pending before the Commission.

On August 16, 2013, MISO submitted proposed CONE values for the MISO Southern Region⁴ to enable New LSEs to participate in a Transitional Planning Resource Auction, in accordance with Section 69A.11.9 of the Tariff. That filing is currently pending with the Commission in Docket No. ER13-2187-000.⁵

II. CONE for Each Local Resource Zone

MISO has calculated and is filing CONE values on an LRZ basis. Section 69A.8.a of Module E-1 of the Tariff requires, in part, that MISO and the IMM determine the CONE value for each LRZ, as follows:

[C]onsider factors, including, but not limited to: (1) physical factors (such as, the type of Generation Resource that could reasonably be constructed to provide Planning Resources, costs associated with locating the Generation Resource within the Transmission Provider Region, the estimated costs of fuel for the Generation Resource); (2) financial factors (such as, the hypothetical debt/equity ratio for the Generation Resource, the cost of capital, a reasonable return on equity, applicable taxes, interest, insurance); and (3) other costs (such as, costs related to permitting, environmental compliance, operating and maintenance expenses). In calculating the CONE, the Transmission Provider and the IMM shall not consider the anticipated net revenue from the sale of capacity, Energy or Ancillary Services. CONE values will be calculated for each LRZ. The Transmission Provider shall arrange for CONE values to be calculated annually in concert with the IMM no later than September 1 beginning on September 1, 2012 and filed with the Commission.

In addition, Section 69A.10 of the Tariff provides that MISO “will impose a Capacity Deficiency Charge on an [Load Serving Entity] that has not demonstrated, at the close of the Planning Resource Auction, to the Transmission Provider, through the MECT, that it has arranged sufficient zonal capacity resources to meet its PRMR. The annual Capacity Deficiency Charge will be calculated as follows: The CONE value for the LRZ where the LSE has not arranged through the MECT sufficient ZRCs will be multiplied by 2.748 times the number of Zonal Resource Credits that the LSE is deficient.”

Thus, MISO is required to calculate and submit for Commission approval a CONE value for each of the LRZs in the MISO Region.

⁴ On July 22, 2013, MISO submitted with the Commission a filing to establish two new LRZs in the MISO Southern Region, to be designated as LRZ 8 and LRZ 9. That filing is currently pending with the Commission in Docket No. ER13-1999-000.

⁵ MISO notes that the calculations in the MISO South region CONE filing were based upon 2010 dollars, rather than 2014 dollars. The instant filing is based upon 2014 dollars.

III. CONE CALCULATION PROCESS

A. Approach Followed by MISO

MISO analyzed the appropriate CONE value in each LRZ⁶ based upon the costs associated with an advanced combustion turbine (“CT”).⁷ MISO used the following approach: First, MISO began with an estimate of a CONE value not specific to local zone. Next, MISO used “the law of one price” where applicable (*e.g.*, turbines that are sold competitively). Next, MISO developed zonal differences to reflect different locational costs (*e.g.*, labor, technical enhancements and others) using a recent United States Energy Information Administration (“EIA”) document. Finally, MISO used the Net Present Value (“NPV”) algorithm to calculate locational CONE values for each of the LRZs.

MISO estimates its most recent CONE value for the entire MISO Region to be \$90,750/MW. This number was developed in concert with the IMM and serves as the basis for developing regional values.

Next, based upon the economic principle known as the “law of one price,”⁸ MISO allowed factors such as the weighted average cost of capital, escalation rates (and others factors where global competition drives prices to have no locational differences) to be constant.

In order to determine the appropriate CONE value for each of the LRZs, MISO relied upon the most recent EIA report on Updated Capital Cost Estimates for Utility Scale Electricity Generation Plant (“EIA Report”).⁹ The EIA Report contains detailed specifications for a

⁶ On July 22, 2013, MISO made a compliance filing in Docket No. ER13-1999-000 which included, among other things, Attachment VV, which is a map of the nine (9) LRZ boundaries and a description of the states that are in each of the LRZs. MISO is basing the subject LRZ CONE values on the LRZ boundaries described in the July 22, 2013 compliance filing, which is pending Commission approval.

⁷ Combustion turbines have been used as the basis for determining the cost of new entry in other RTOs and ISOs. *See PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275 at P 39 (2009); *New York Indep. Sys. Operator Inc.*, 123 FERC ¶ 61,206, P 24 (2008). The subject LRZ CONE values were based upon data for advanced CTs because such facilities are more likely to actually be constructed in the MISO Region, due to the more economic capital requirements and fuel costs of advanced CTs, which are more efficient and have a lower heat rate than conventional CTs.

⁸ The law of one price states, in essence, that in an efficient market, all identical goods must have only one price.

⁹ *See* Energy Information Administration, *Updated Capital Cost Estimates for Utility Scale Electricity Generation Plants* (April 2013) (*available at: http://www.eia.gov/forecasts/capitalcost/pdf/updated_capcost.pdf*).

hypothetical advanced CT,¹⁰ including information regarding the differences in project costs for an advanced CT with a nominal capacity of 210 MW, based upon the state where the facility is constructed.¹¹

MISO used a NPV analysis to determine an appropriate CONE value for hypothetical advanced CTs located in each of the LRZs. In accordance with Section 69A.8.a of the Tariff, MISO considered many factors in its calculation of the CONE value, including the following: (1) physical factors (such as, the type of Generation Resource that could reasonably be constructed to provide Planning Resources, costs associated with locating the Generation Resource within the Transmission Provider Region, the estimated costs of fuel for the Generation Resource); (2) financial factors (such as, the hypothetical debt/equity ratio for the Generation Resource, the cost of capital, a reasonable return on equity, applicable taxes, interest, insurance); and (3) other costs (such as, costs related to permitting, environmental compliance, operating and maintenance expenses). MISO did not consider the anticipated net revenue from the sale of capacity, Energy or Ancillary Services.

The results shown on enclosed Attachment B were derived by MISO and comport with calculations made by the IMM. Attachment B was based, in part, upon data supplied by the EIA in year 2012 dollars, which were adjusted using the implicit price deflator from the Bureau of Economic analysis in order to convert EIA cost data from 2012 dollars into 2014 dollars.¹² In order to produce the annualized CONE value for each of the LRZs from these cost numbers, MISO assumed: a 50/50 debt to equity ratio; a 20-year project life and loan term; a 5.32 percent debt interest rate;¹³ a 2.5 percent Operation and Maintenance escalation factor; a 2.2 percent GDP deflator; a 43 percent combined effective federal and state tax rate; property tax and insurance costs of 1.5 percent of the capital costs; a calculated weighted average cost of capital of 7.52 percent; and a 12 percent after tax internal rate of return on equity. None of these factors vary by LRZ to any significant degree that is discernible in available data. MISO will continue to examine these factors in the future in order to determine if any LRZ-specific modifications are indicated. These factors and assumptions are comparable to those used by other RTOs in the development of CONE estimates.

The most recent estimate of CONE for each LRZ in the MISO Region are consistent with the CONE calculation provided by the IMM in the 2012 State of the Market Report for the entire

¹⁰ See EIA Report at 9-1 through 9-3.

¹¹ See EIA Report Table 9-2. (The Total Location Project Costs for the states that comprise the nine (9) LRZs are shown in enclosed Attachment A, as well as the average Project Costs for each of the LRZs).

¹² The IMM's calculation was performed using the implicit price deflators from 2012 and 2013.

¹³ This figure was developed based upon current information regarding interest rates on 20-year bonds.

MISO Region.¹⁴ In that Report, the IMM presented information regarding the annual costs associated with two types of Generation Resources: gas combined-cycle Generation Resources and gas combustion turbine Generation Resources. The IMM concluded, for example, that the Estimated Annual Cost of a new combustion turbine Generation Resource in the MISO Region was approximately \$90,750/MW.¹⁵

MISO believes that establishing the LRZ CONE values shown in enclosed Attachment B for the 2014/2015 Planning Year are just and reasonable, for use in the annual resource adequacy construct. The calculations are based on the same principles as those previously used to determine CONE values for the entire MISO footprint, but have been modified to include specifically estimated costs that vary by location. Other costs included in the determination of CONE are not believed to vary by location at this time.

B. Result

MISO, in concert with the IMM, proposes that the LRZ CONE values for the next Planning Year (June 1, 2014 through May 31, 2015) should be set at the values shown on Attachment B.

IV. EFFECTIVE DATE

MISO respectfully requests an effective date of December 4, 2013 for the subject LRZ CONE values. It is important for MISO's LSEs to know the CONE value for each of the LRZs well in advance of the April 2014 Planning Resource Auction that will be conducted in May of 2014. MISO requests waiver of any applicable provisions of the Commission's rules and regulations to effectuate such a date.

V. NOTICE AND SERVICE

MISO has served a copy of this filing electronically, including attachments, upon all Tariff Customers under the EMT, MISO Members, Member representatives of Transmission Owners and Non-Transmission Owners, the MISO Advisory Committee participants, as well as, state commissions within the Region. In addition, the filing has been posted electronically on MISO's website at www.misoenergy.org, which is accessible from the homepage through the "Library" tab under the "FERC Filings" link, for other interested parties in this matter.¹⁶

¹⁴ See David B. Patton, Ph.D., IMM for MISO, 2012 State of the Market Report (June 2013) (available at:

<https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/BOD/Markets%20Committee/2013/20130724/20130724%20Markets%20Committee%20of%20the%20BOD%20Item%2005%202012%20SOM%20Report.pdf>).

¹⁵ *Id.*

¹⁶ See MISO FERC Filings available at:

<https://www.misoenergy.org/Library/FERCFilingsOrders/Pages/FERCFilings.aspx>

VI. CONCLUSION

For the foregoing reasons, MISO respectfully requests that the Commission find that MISO has complied with the requirements in Section 69A.8 of the Tariff and approve the LRZ CONE values as described on Attachment B for each of the LRZs in the MISO Region, for the Planning Year that will commence on June 1, 2014.

Respectfully submitted,

/s/ Michael L. Kessler

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September 3, 2013

ATTACHMENT A

**Total Location Project Cost (2014 \$/kW) Values
for Local Resource Zones Reflecting the Energy Information Administration's
Updated Capital Cost Estimates for Electricity Generation Plants**

<u>Local Resource Zone 1</u> -	Minnesota	\$ 740
	North Dakota	\$ 690
	Average	\$ 715.00
<u>Local Resource Zone 2</u> -	Wisconsin	\$ 723
<u>Local Resource Zone 3</u> -	Iowa	\$ 712 (Davenport)
	Iowa	\$ 697 (Waterloo)
	Average	\$ 704.50
<u>Local Resource Zone 4</u> ¹⁷ -	Indiana	\$ 717
	Iowa	\$ 705
	Missouri	\$ 735
	Average	\$ 718.83
<u>Local Resource Zone 5</u> -	Missouri	\$ 735 (St. Louis)
<u>Local Resource Zone 6</u> -	Indiana	\$ 717
<u>Local Resource Zone 7</u> -	Michigan	\$ 735 (Detroit)
	Michigan	\$ 706 (Grand Rapids)
	Average	\$ 720.50
<u>Local Resource Zone 8</u> -	Arkansas	\$ 681
<u>Local Resource Zone 9</u> -	Mississippi	\$ 675
	Louisiana	\$ 724
	Texas	\$ 661
	Average	\$ 686.67

¹⁷ The EIA Report only included data for Chicago, Illinois, which is not located within LRZ 4 (it is in the PJM Interconnection, L.L.C. region). Accordingly, MISO used EIA Report data from the 3 states bordering the non-Chicago area of Illinois to calculate the Total Location Project Cost for LRZ 4, which is located in Illinois.

ATTACHMENT B

CONE VALUES (\$/MW/yr.) FOR LOCAL RESOURCE ZONES

Local Resource Zone 1	\$ 89,500
Local Resource Zone 2	\$ 90,320
Local Resource Zone 3	\$ 88,450
Local Resource Zone 4	\$ 89,890
Local Resource Zone 5	\$ 91,610
Local Resource Zone 6	\$ 89,670
Local Resource Zone 7	\$ 90,100
Local Resource Zone 8	\$ 85,990
Local Resource Zone 9	\$ 86,530

Certificate of Service

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 3rd day of September, 2013.

/s/ Michael L. Kessler
Michael L. Kessler