BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a AmerenUE's Tariff Establishing an Industrial Demand Response Program	)))	Case No ET-2007-0459

AMERENUE'S ASSESSMENT OF MISO MODULE E ON AMERENUE'S RIDER IDR

COMES NOW Union Electric Company d/b/a AmerenUE (AmerenUE) and for its Assessment of MISO Module E, states as follows.

1 On January 25, 2008, the parties in this case filed a Stipulation and Agreement (Stipulation) supporting AmerenUE's Industrial Demand Response rider (IDR) The Stipulation was approved by the Missouri Public Service Commission (Commission) on February 14, 2008

2 The Stipulation states in paragraph eight

> In the event that FERC approves Module E of the MISO Markets Tariff, which contains new resource adequacy provisions and the terms and criteria under which Demand Resources receive capacity credit (as either the equivalent of a Capacity Resource or as a Load Modifier), AmerenUE will cease entering into any new contracts, however, AmerenUE will continue to honor all contracts already in place when Module E is approved AmerenUE will, within 30 days of the effective date of such FERC approval, file in this proceeding an assessment of the impact of the new MISO Markets Tariff on the economic value of the demand response resources that can be created through AmerenUE's IDR pilot tariff

3 FERC has now approved MISO Module E and AmerenUE has ceased entering into any new contracts related to its current IDR tariff

4 Additionally, AmerenUE has completed the assessment required by the Stipulation AmerenUE's assessment is attached to this pleading Ultimately, if

Exhibit No. 424
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AmerenUE desires to have a Demand Response tariff to qualify as a capacity or load modifying resource credit at MISO, the Company will have to make significant modifications to its IDR tariff

5 AmerenUE is not filing a revised IDR tariff with this assessment, as it wishes to confer with the other parties to this case and discuss ideas for designing a replacement for the IDR tariff

6 AmerenUE asks that the Commission accept this pleading and attached analysis as fulfillment of the requirement of the Stipulation

WHEREFORE, for the above stated reasons, AmerenUE asks that the Commission accept this pleading and attached analysis as fulfillment of the requirement of the Stipulation and Agreement

Respectfully submitted,

UNION ELECTRIC COMPANY,
d/b/a AmerenUE

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Assessment of MISO Module E on AmerenUE's Rider IDR (Industrial Demand Response)

Background

AmerenUE's Rider IDR, the Industrial Demand Response Rider, became effective on February 24, 2008 and was utilized by three customers during the 2008 curtailment season The current form of Rider IDR was the result of a Stipulation and Agreement in Case No ET-2007-0459 One of the provisions of the Stipulation, as outlined in paragraph 8 states that "*In the event that FERC approves Module E of the MISO Markets Tariff, which contains new resource adequacy provisions and the terms and criteria under which Demand Resources receive capacity credit AmerenUE will cease entering into any new contracts* " The above language was also included in the Rider IDR tariff In addition, the Stipulation states that "*AmerenUE will, within 30 days of the effective date of such FERC approval, file in this proceeding an assessment of the impact of the new MISO Markets Tariff on the economic value of the demand response resources that can be created through AmerenUE's IDR pilot tariff*"

On October 20, 2008, FERC issued a conditional approval of the MISO Module E, resulting in the initiation of the two above provisions from the Stipulation and Agreement This document is intended to fulfill the requirement for an assessment of the impact of Module E on Rider IDR as specified in the Stipulation and Agreement in Case No ET-2007-0459

Although the basis for the development of Rider IDR was to qualify the demand side resources obtained through the Rider as Load Modifying Resources under Module E of MISO's tariff, several provisions of the conditionally approved Module E are inconsistent with the current Rider IDR

MISO Module E Provisions

The MISO Tariff has specific provisions for Load Modifying Resources (LMRs), which have been defined as demand resources and behind-the-meter generation that may be used to satisfy resource adequacy requirements even if they do not qualify as network resources Behind-the-meter generator resources are located with load and do not participate directly in Midwest ISO energy markets These resources have load located behind a retail customer meter and have an obligation to be available in emergencies

LMRs can be utilized to meet Resource Adequacy Requirements (RAR) even if they do not qualify as a Network Resource, however all Load Modifying Resources utilized to meet RAR must be registered with the Transmission Provider in accordance with Section 69 1 4 and the Business Practices Manuals for Resource Adequacy and Market Registration All LMRs utilized to meet RAR must be available for use in the event of an Emergency as declared by the Transmission Provider (MISO) When an LSE proposing to use an LMR to meet its RAR registers the Demand Resource with the Transmission Provider, the LSE must provide written documentation to the Transmission Provider from the state having jurisdiction over the LSE with the amount and type of Demand Resource and the procedures for achieving the Load reduction For LSEs without state accreditation procedures for Demand Resources, the LSE must secure a third party auditor to provide documentation of the Demand Resource's ability to reduce to the targeted MW level or to a specified firm service level when called upon by the Transmission Provider The responsible LSE will be required to submit testing procedures using

performance data from past use of the LMR When performance data is unavailable, a mock test will be conducted The Midwest ISO will either compare the actual usage of the LMR against its baseline usage o· compare the actual usage with its firm service level designation to determine the amount of the LMR load reduction for crediting

FERC has found that portions of MISO's filing are not just and reasonable, and have required MISO to make a compliance filing to correct this In particular, FERC agreed with the requests for rehearing that the proposed treatment for LSEs with LMRs, allowing these LSEs to subtract LMRs from load, would result in these LSEs having fewer resources available during emergencies to the detriment of reliability and would not be comparable to the treatment of other resources They also noted that, under the Midwest ISO's resource adequacy program, the Midwest ISO has responsibility for calculating the resource adequacy requirements for LSEs based on the applicable planning reserve margin For these reasons, FERC found the Midwest ISO's proposal to net behind-the-meter resources against forecast load requirements to be unjust and unreasonable

Furthermore, Module E imposes a variety of compliance requirements upon LSE's as found in section 68

- No later than the first Day of the Month preceding each Month in the Planning Year, each LSE shall demonstrate to the Transmission Provider that for the Month it has sufficient Capacity Resources that qualify pursuant to Section 69 2 to serve the LSE's Load in an amount equal to or greater than the Forecast LSE Requirement multiplied by one (1) plus the Planning Reserve Margin (PRM) established in Section 68 that is applicable to such LSE
- LSEs shall submit updates to such Resource Plans no later than the first Day of the Month preceding each Month in the Planning Year
- The LSE shall submit by March 1 of each Planning Year consistent with Good Utility Practice its forecasted Demand at each Commercial Pricing Node for each Month of the next two (2) Planning Years, and each Summer and Winter Season for an additional eight (8) Planning Years based upon, but not limited to, average historical weather conditions and expected Load changes LSEs shall submit updates to such forecasted Demand no later than the first Day of the Month preceding a Month
- LSEs shall submit updates to such Planning Resources no later than the first Day of the Month preceding a Month of the Planning Year
- Each LSE shall submit to the Transmission Provider a notice of any change in the LSE's Planning Resources or forecasted Demand no later than the first Day of the Month preceding a Month in a Planning Year
- If the forecasted Demand varies from prior submissions, the LSE must provide the Transmission Provider with written justification

Section 69 2 2, discusses Load Modifying Resources

- LMRs will be accredited utilizing the Generator or demand availability information and methods further described in the Business Practices Manual for Resource Adequacy
- All LMRs utilized to meet RAR must be available for use in the event of an Emergency as declared by the Transmission Provider, pursuant to the emergency operating

procedures of the Transmission Provider utilized during Emergency steps to preserve Capacity Resources dedicated to firm Load and Operating Reserves

- The Transmission Provider shall develop procedures for accrediting, testing, validating, measuring, and verifying, all Demand Resources claimed by an LSE as a Load Modifying Resource consistent with the procedures specified in the Business Practices Manual for Resource Adequacy The accrediting, testing, validation, measurement and verification procedures developed by the Transmission Provider shall take into account any applicable state regulatory, Regional Entity (RE) or other non-jurisdictional entities requirements regarding duration, frequency and notification processes for the candidate Demand Resources The accrediting procedures shall also take into account deliverability and availability for the Planning Year

- Demand Resources must meet the following requirements·
  - The Demand Resource must be equal to or greater than 100 kW (a grouping of smaller resources may qualify in meeting this standard).
  - The Demand Resource must be available to be scheduled for a Load reduction at the targeted Load reduction level or by moving to the firm service level with no more than 12 hours Shut-Down Time
  - Once Scheduling Instructions are given by the Transmission Provider that require a Load reduction, the Demand Resource must be capable of ramping down to meet the targeted Load reduction level or achieve the firm service level by the Hour designated by the Transmission Provider's Scheduling Instructions
  - Once the targeted level of Load reduction or firm service level is achieved, the Demand Resource must be able to maintain the target level of Load reduction or firm service level for at least four continuous hours
  - The Demand Resource must be capable of being interrupted at least five (5) times during the Summer Season (when called upon by the Transmission Provider) during any Planning Year for which the Demand Resource receives credit as a Planning Resource
  - Unless the Load associated with a Demand Resource that would normally be available for interruption is already off the Transmission System for reasons such as maintenance outages, etc , when a Demand Resource Load reduction is requested by the Transmission Provider, the resultant Load reduction must be a reduction that would not have otherwise occurred within the next twenty-four (24) hour period.
  - A Demand Resource in which curtailment is an economic option and is not an obligation during Emergency events declared by the Transmission Provider pursuant to the Transmission Provider Emergency Operating Procedures will not qualify as a Load Modifying Resource
  - There can be only one Market Participant claiming the Demand Resource Capacity credit associated with the Load reduction capability
  - Demand Resources offered into the Day-Ahead and/or Real-Time Energy and Operating Reserve Markets as price sensitive Bids are obligated to be interrupted during an Emergency pursuant to the Transmission Provider emergency operating procedures regardless of the projected or actual Real-Time Energy Market LMP

Impact of Module E Provisions on RIDER IDR

After reviewing the provisions and requirements of MISO Module E, it is clear that the current Rider IDR has several deficiencies which prevent demand resources acquired through that Rider from qualifying as Load Modifying Resources and therefore prevent those resources from providing any value in terms of meeting the Company's Resource Adequacy Requirement as was intended by the Rider

Specific requirements of Module E which are necessary for a Demand Resource to be considered in meeting RAR but are in conflict with the provisions of Rider IDR include

1 Module E section 69 2 2 states that "All LMRs utilized to meet RAR must be available for use in the event of an Emergency as declared by the Transmission Provider" with no mention of restrictions on time of day, day of the week, or frequency anywhere in the MISO tariff
   - Rider IDR limits interruptions to the hours of 10 00 a m to 10 00 p m. Monday through Friday, a maximum of ten times per season, and no more than 3 consecutive days

2 Module E section 69 2 2 1 a states that "The Demand Resource must be capable of being interrupted at least five (5) times during the Summer Season (when called upon by the Transmission Provider) during any Planning Year for which the Demand Resource receives credit as a Planning Resource "
   - Rider IDR does contain provisions for 5 to 10 interruptions per curtailment season, all of which may be called for economic reasons and are not held in reserve for emergencies called by MISO, so they would not qualify for this provision

3 Module E section 69 2 2 1 a states that "A Demand Resource in which curtailment is an economic option and is not an obligation during Emergency events declared by the Transmission Provider pursuant to the Transmission Provider Emergency Operating Procedures will not qualify as a Load Modifying Resource "
   - Although Rider IDR contains provisions for 5 to 10 interruptions per season, all of those can be called for economic reasons Since all 10 interruptions could be used for economic purposes, there would be no additional interruptions available for emergency events Therefore, the resources secured under Rider IDR do not qualify as a Load Modifying Resource

4 Module E section 69 2 2 1 b states that "For LSEs without state accreditation procedures for Demand Resources, the LSE must secure a third party auditor to provide documentation of the Demand Resource's ability to reduce to the targeted MW level or to a specified firm service level when called upon by the Transmission Provider "
   - Rider IDR contains no provisions for documentation and accreditation of the Demand Resources ability to reduce load

5 FERC ruled in their order of October 20, 2008 that the Midwest ISO's proposal to net behind-the-meter resources against forecast load requirements to be unjust and unreasonable

- Since Demand Resources will be considered the same as supply side resources in the RAR, a Planning Reserve Margin will also be required on the Demand Resources This will effectively reduce the value of the Demand Resources by requiring the Company to set aside additional resources as a reserve margin for the demand resources

6 Module E section 68 states that "No later than the first Day of the Month preceding each Month in the Planning Year, each LSE shall demonstrate to the Transmission Provider that for the Month it has sufficient Capacity Resources that qualify pursuant to Section 69 2 to serve the LSE's Load in an amount equal to or greater than the Forecast LSE Requirement multiplied by one (1) plus the PRM established in Section 68 that is applicable to such LSE "

- Since Capacity Resources, including Demand Resources, must be provided on a monthly basis, the Company would have to hold in reserve a portion of the Demand Resource's curtailment opportunities for each month of the curtailment season The current Rider IDR contains no such provisions

As evidenced by the above numerous and significant inconsistencies between the MISO Module E and the Company's Rider IDR, it is clear conditionally approved Module E tariff provisions would not allow demand resources obtained through Rider IDR to be classified as Load Modifying Resources Therefore the economic value of those resources is significantly different than that which was intended for the Rider As a result, it is prudent to discontinue use of the current Rider IDR as a source for demand resources In light of the requirements of Module E on the use of demand resources, any future development of demand resource tariffs should consider other alternative means to extract value from a demand resource other than the value as a Load Modifying Resource as defined in MISO's Module E.