

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In re: Union Electric Company's	)	
2008 Utility Resource Filing pursuant to	)	Case No. EE-2010-0243
4 CSR 240 – Chapter 22.	)	

**MISSOURI DEPARTMENT OF NATURAL RESOURCES'  
RESPONSE TO AMERENUE'S  
2011 INTEGRATED RESOURCE PLAN WAIVER REQUESTS**

COMES NOW the Missouri Department of Natural Resources (MDNR) and submits its response to the waiver requests submitted by AmerenUE with its February 24, 2010 Motion to Establish a Proceeding and Request for Waivers.

In brief, AmerenUE has requested a total of 39 waivers or variances of the Commission's Integrated Resource Planning Rules. MDNR provides its response to 15 of these waiver or variance requests, in the following areas: load analysis and forecasting, supply-side resource analysis, demand side resource analysis, and integrated resource analysis, in the attached document, MDNR Response Attachment 1. With respect to the remaining 24 requests, the fact that MDNR is not addressing them at this time does not constitute support for any future request for an identical or similar waiver or variance by AmerenUE or another electric utility, and MDNR does not waive its right to object to such waiver or variance requests in the future.

Respectfully submitted,

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#### **CERTIFICATE OF SERVICE**

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or e-mailed to all counsel of record this 31<sup>st</sup> day of March, 2010.

/s/ Sarah Mangelsdorf  
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**Missouri Department of Natural Resources**  
**Response to**  
**AmerenUE 2011 Integrated Resource Plan**  
**Waiver Requests**  
**EE-2010-0243**

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MDNR has reviewed the the waiver and variance requests filed on March 2, 2010 by AmerenUE in case EE-2010-0243 in light of the provisions of Section 4 CSR 240-22.080(2), which provides that the Commission "may waive or grant a variance from a provision of this chapter for good cause shown."

For many of its requests, the company presents a "proposed alternative" to the requirements of the rule. Many of MDNR's responses propose revisions to the company's proposed alternative which are intended to mitigate the concerns stated by the company while maintaining a level of transparency and analytic rigor equivalent to that required by the current rule.

AmerenUE requests a total of 39 waivers or variances from the rule. MDNR is commenting on 15 of these requests. With respect to the remaining 24 requests, the fact that MDNR is not addressing them at this time does not constitute support for any future request for an identical or similar waiver or variance by AmerenUE or another electric utility. MDNR does not waive its right to object to these waiver or variance requests in the future.

Each response below first reproduces the applicable rule number, "Current Requirement", "Proposed Alternative", and "Rationale" sections from AmerenUE's Attachment A, AmerenUE 2011 Integrated Resource Plan Waiver Requests, followed by the MDNR Response and where applicable the MDNR Proposed Revision. References in these responses to "the utility" or "the company" are references to AmerenUE.

#### ***4 CSR 24022.030 – Load Analysis and Forecasting***

MDNR wishes to comment on six of the company's nine requests for a waiver or variance from the requirements of 4 CSR 24022.030.

##### **(1) 4 CSR 240-22.030 (1)(D)1.**

###### **Current Requirement:**

The development of actual and weather-normalized monthly class and system energy usage and actual hourly net system loads shall start from January 1982 or for the period of time used as the basis of the utility's forecast, whichever is longer.

###### **Proposed Alternative:**

The development of actual and weather-normalized monthly class and system energy usage and actual hourly net system loads shall start from January 2001 or for the period of time used as the basis of the utility's forecast, whichever is longer.

###### **Rationale:**

Actual hourly net system load data specific to AmerenUE's current service territory is available back to 2001; hourly system data going back to 1982 is

available but will not be used in forecasting or DSM analysis as it includes Metro East (Illinois) and wholesale loads, which cannot be reasonably separated.

**MDNR Response:**

In MDNR's view, the period of time used as the basis of the utility's forecast should be at least ten years and the utility should maintain the relevant data for at least the ten most recent years. For example, if the reference date for this filing is January 2010, the data should go back at least to January 2000. Given that AmerenUE has stated that data going back to January 2000 is not available, MDNR acknowledges that there is no reasonable alternative to AmerenUE's proposal to base the forecast in this filing on data beginning January 2001. However, in future IRP filings, AmerenUE should base forecasts on the longest time period for which data is available, at minimum ten years, and should retain the data necessary to meet this standard. Therefore, MDNR does not object to this waiver request.

**(2) 4 CSR 240-22.030 (1)(D)2.**

**Current Requirement:**

Estimated actual and weather-normalized class and system monthly demands at the time of the system peak and weather normalized hourly system loads shall start from January 1990 or for the period of time used as the basis of the utility's forecast of these loads, whichever is longer.

**Proposed Alternative:**

Estimated actual and weather-normalized class and system monthly demands at the time of the system peak and weather normalized hourly system loads shall start from July 2003 or for the period of time used as the basis of the utility's forecast of these loads, whichever is longer.

**Rationale:**

Historical monthly class coincident demands (actual and weather normalized) back to 1990 are not available. As an alternative, AmerenUE has major class estimates of coincident monthly peak demand for actual and normal weather conditions back to July 2003, as prior to that load research sample included Metro East customers.

**MDNR Response:**

The minimum 10-year data standard stated in MDNR's response on 4 CSR 240-22.030 (1)(D)1 should apply here as well. If data going back to January 2000 is not available, there is no reasonable alternative to accepting AmerenUE's proposal to base the forecast in this filing on data beginning July 2003. However, for future IRP filings, AmerenUE should base forecasts on the longest time period for which data is available, at minimum ten years, and should retain the data

necessary to meet this standard. Therefore, MDNR does not object to this waiver request.

**(3) 4 CSR 240-22.030 (3)**

**Current Requirement:**

Analysis of Use Per Unit. For each major class, the utility shall analyze historical use per unit by end use.

**Proposed Alternative:**

Analysis of Use Per Unit. For each major class for which end-use information is available, including the Residential, and Commercial Small and Large General Service classes, the utility shall analyze historical use per unit by end use.

**Rationale:**

AmerenUE does not rely on end use data as driver variables for large commercial/industrial customer classes. These large customer classes are modeled using driver variables related to economic activity. Therefore, AmerenUE will comply with this rule when end uses are included as driver variables.

**MDNR Response:**

The requirement to analyze historic industrial and large commercial end use should not be waived. Analysis of historic end use by these customers, even if it is not the basis for forecasting, is an important component of other functions of load analysis such as identification and development of cost-effective demand-side programs for these customers. If the utility considers use per unit to be an inappropriate basis for analyzing historic end use for these customers, the alternative proposal should state the alternative approach that the utility proposes to analyze historic end use by these customers. The requirement for analysis of use per unit should not be conditioned on whether end use information is currently available for any customer classes.

**(4) 4 CSR 240-22.030 (3)(B)1.**

**Current Requirement:**

Measures of the stock of energy-using capital goods. For each major class and end use, the utility shall implement a procedure to develop and maintain survey data on the energy-related characteristics of the building, appliance, and equipment stock including saturation levels, efficiency levels, and sizes where applicable. The utility shall update these surveys before each scheduled filing pursuant to 4 CSR 240-22.080.

**Proposed Alternative:**

Measures of the stock of energy-using capital goods. For each end use in the Residential and Small and Large Commercial classes, the utility shall acquire primary or secondary survey data on the energy-related characteristics of the building, appliance, and equipment stock including saturation levels, efficiency levels, and sizes. In its February 2011 filing AmerenUE will present a comparison of the survey data used in load analysis and forecasting to the results of AmerenUE's demand-side potential study.

**Rationale:**

Some utility-specific survey information will be available at the time of the 2011 filing. However, the data only represents one cross section of time. The SAE forecasting method requires a time series of end-use data. To construct a time series, AmerenUE will use utility specific survey data and secondary end use data; including the Missouri Statewide Residential Lighting and Appliance Saturation and Efficiency Study conducted by RLW Analytics, end-use data for the West North Central census region developed by the Energy Information Administration, and KCP&L's survey data available in their latest public IRP filing. AmerenUE will continue to explore the possibility of conducting ongoing surveys that meet both DSM and Load Analysis and Forecasting needs.

**MDNR Response:**

The requirement to obtain data on the energy-related characteristics of industrial customers' building, appliance, and equipment stock should not be waived. The utility provides no rationale for such a waiver. Even if the data is not used in forecasting, it is an important component of other functions of load analysis such as providing the information necessary to develop cost-effective demand-side programs for industrial customers. If the utility considers the current rule's methodological prescriptions to be inappropriate, the alternative proposal should state the alternative approach that the utility will use to obtain this data for industrial customers.

**(5) 4 CSR 240-22.030 (4)(A)**

**Current Requirement:**

Load profiles for each day type shall be developed for each end use, for each major class and for the net system load.

**Proposed Alternative:**

Load profiles for each day type shall be developed for each major class, for the net system load, and, for each end use in each major class for which end-use information is available, including the Residential, and Commercial Small and Large General Service classes.

**Rationale:**

AmerenUE does not rely on end use data as driver variables for large commercial/industrial customer classes. These large customer classes are modeled using driver variables related to economic activity. Therefore, AmerenUE will comply with this rule when end uses are included as driver variables.

**MDNR Response:**

To support analysis of the impact of demand-side measures on capacity requirements, and for other data analysis purposes, AmerenUE should make every effort to obtain data necessary to develop load profiles for each major class, end use and day type.

**MDNR Proposed Revision:**

MDNR proposes to revise the above by adding the following: “For major classes for which end-use information is not currently available, AmerenUE will diligently seek opportunities to develop the data necessary to support comparable load profiles.”

**(6) 4 CSR 240-22.030 (4)(B)**

**Current Requirement:**

For each day type, the estimated end-use load profiles shall be calibrated to sum to the estimated major class load profiles and the estimated major class load profiles shall be calibrated to sum to the net system load profiles.

**Proposed Alternative:**

For each day type, the estimated major class load profiles shall be calibrated to sum to the net system load profiles and for each major class for which end-use information is available, including the Residential, and Commercial Small and Large General Service classes, the estimated end use load profiles shall be calibrated to sum to the estimated major class load profiles.

**Rationale:**

AmerenUE does not rely on end use data as driver variables for large commercial/industrial customer classes. These large customer classes are modeled using driver variables related to economic activity. Therefore, AmerenUE will comply with this rule when end uses are included as driver variables.

**MDNR Response:**

AmerneUE's effort to develop load profiles should not be limited to the classes and end uses for which information is currently available, for the reasons presented above in MDNR's response on 4 CSR 240-22.030 (3). AmerenUE should make every effort to obtain information for all major classes and end uses.

**MDNR Proposed Revision:**



MDNR proposes to revise the above by adding the following: “AmerenUE will diligently seek opportunities to obtain information for each end use in each major class.”

#### ***4 CSR 24022.040 – Supply-Side Resource Analysis***

MDNR wishes to comment on all three of the company's requests for a waiver or variance from the requirements of 4 CSR 24022.040.

##### **(1) 4 CSR 240-22.040 (2)(B)2.**

###### **Current Requirement:**

For each pollutant identified pursuant to paragraph (2)(B)1., the utility shall specify at least two (2) levels of mitigation that are more stringent than existing requirements which are judged to have a nonzero probability of being imposed at some point within the planning horizon.

###### **Proposed Alternative:**

AmerenUE will provide at least two levels of mitigation where this approach is applicable. For probable environmental requirements that do not lend themselves to varying levels of mitigation, AmerenUE will include an explanation of why two levels of mitigation are not applicable.

###### **Rationale:**

In the case where Maximum Achievable Control Technology (MACT) is viewed as the only probable environmental requirement and the MACT levels will not be revised during the planning horizon then there is only one level of mitigation available. The determination of the number of mitigation levels for any pollutant identified will be made during the resource planning process.

###### **MDNR response:**

MDNR concurs that the situation described in the rationale is a case in which a single level of mitigation is appropriate. However, MDNR or other parties to the filing may be aware of factors that affect the probability that a single level of MACT will be imposed cross the planning horizon. Once the IRP is filed, even if parties identify a deficiency they have no opportunity to positively influence the quality of this determination.

###### **MDNR Proposed Revision:**

MDNR proposes to add the following statement to the proposed alternative; "Parties to the case will be provided an opportunity to comment on determination of the number of mitigation levels during the resource planning process."

**(2) 4 CSR 240-22.040 (3)**

**Current Requirement:**

The analysis of supply-side resource options shall include a thorough analysis of existing and planned interconnected generation resources. The analysis can be performed by the individual utility or in the context of a joint planning study with other area utilities. The purpose of this analysis shall be to ensure that the transmission network is capable of reliably supporting the supply resource options under consideration, that the costs of transmission system investments associated with supply-side resources are properly considered and to provide an adequate foundation of basic information for decisions about the following types of supply-side resource alternatives:

- (A) Joint participation in generation construction projects;
- (B) Construction of wholly-owned generation or transmission facilities; and
- (C) Participation in major refurbishment, upgrading or retrofitting of existing generation or transmission resources.

**Proposed Alternative:**

AmerenUE will include generic projected transmission costs as a component of owner's cost, which is estimated as a percentage of the Engineering, Procurement, and Construction cost for each technology. AmerenUE will identify what components are included in the owner's cost estimate and seek a more specific transmission interconnection cost estimate for supply-side resources that are not generic. AmerenUE will include a generic assumption regarding the allocation of transmission interconnection costs for each technology.

**Rationale:**

The Midwest Independent System Operator ("MISO") process for providing transmission interconnection costs does not provide a final cost until a utility commits to a project. Furthermore, such detail is unwarranted considering data developed pursuant to 4 CSR 240-22.040(1) is generic. For supply-side options that are site-specific, AmerenUE will attempt to provide a more site-specific estimate.

**MDNR Response:**

MDNR concurs with the company's proposal that transmission interconnection costs should be allocated for each technology. The company's proposal promises to partially remedy an issue that MDNR brought forth in the company's previous filing, that the analysis of wind resources placed the entire amount of assumed transmission upgrade costs on the wind resource. However, the company's proposed alternative fails to provide that assumptions concerning allocation should be based on transparent and defensible analysis. Such a provision is important because the

allocation of these costs can influence the screening and selection of supply side resources,

**MDNR Proposed Revision:**

MDNR proposes to replace the final sentence as follows: “AmerenUE will include an appropriate allocation of transmission interconnection costs for each technology. AmerenUE will develop and document this allocation based on consideration of all system resources that share the benefits of the transmission additions or upgrades.”

**(3) 4 CSR 240-22.040 (6)**

**Current Requirement:**

For the utility’s preferred resource plan selected pursuant to 4 CSR 240-22.070(7), the utility shall determine if additional future transmission facilities will be required to remedy any new generation-related transmission system inadequacies over the planning horizon. If any such facilities are determined to be required and, in the judgment of utility decision-makers, there is a risk of significant delays or cost increases due to problems in the siting or permitting of any required transmission facilities, this risk shall be analyzed pursuant to the requirements of 4 CSR 240022.070(2).

**Proposed Alternative:**

AmerenUE will include generic projected transmission costs as a component of owner’s cost, which is estimated as a percentage of the Engineering, Procurement, and Construction cost. In addition, AmerenUE will be analyzing total project cost as an uncertain factor pursuant to 4 CSR 24022.070(2), which includes the transmission interconnection cost. AmerenUE will identify what components are included in the owner’s cost estimate and seek a more specific transmission interconnection cost estimate for supply-side resources that are not generic. AmerenUE will include a generic assumption regarding the allocation of transmission interconnection costs for each technology.

**Rationale:**

The Midwest Independent System Operator (“MISO”) process for providing transmission interconnection costs does not provide a final cost until a utility commits to a project. Furthermore, such detail is unwarranted considering data developed pursuant to 4 CSR 240-22.040(1) is *generic*. For supply-side options that are site-specific, AmerenUE will attempt to provide a more site-specific estimate

**MDNR Response:**

Same as MDNR’s response for 4 CSR 240-22.040 (3).

**MDNR Proposed Revision:**

Same as MDNR’s response for 4 CSR 240-22.040 (3).

#### ***4 CSR 24022.050 – Demand Side Resource Analysis***

MDNR wishes to comment on three of the company's six requests for a waiver or variance from the requirements of 4 CSR 24022.050.

#### **(2) 4 CSR 240-22.050 (3)(F)**

##### **Current requirement:**

End-use measures that pass the probable environmental benefits test must be included in at least one (1) potential demand side program.

##### **Proposed Alternative:**

If AmerenUE does not include each end-use measure that passes the probable environmental benefits test in at least one potential demand-side program, it shall provide an explanation as to why that measure was not appropriate for inclusion.

##### **Rationale:**

This section addresses the cost-effectiveness screening of end use measures. Typically several hundred measures are screened to determine which measures should be included in the energy efficiency programs that will be assessed in subsequent stages of the analysis. The objective of that program analysis step is to combine measures in such a way that the program represents a compelling program offering to a particular market segment. The initial list of measures can include those that, while passing a simple cost-effectiveness test, are not easily or logically bundled with other measures as part of a program, and the design of a program solely to incorporate these measures may be inefficient and inconsistent with best practice program design. The intent of this waiver is to create the flexibility to exclude measures passing the cost-effectiveness screen if the projected impacts are extremely small, or if those measures cannot logically be bundled into programs or offered as a cost-effective stand-alone program. AmerenUE would be required to present the results of the full measure screening and a justification as to why any cost effective measures would be excluded from further analysis. Absent this waiver, there is a greater premium placed on a qualitative screening process that can eliminate measures expected to have little impact in the market due to applicability or feasibility.

##### **MDNR Response:**

MDNR appreciates the need for flexibility when designing DSM programs. However, MDNR also asserts that AmerenUE should diligently strive to achieve the state's energy policy goal of achieving all cost-effective DSM savings.<sup>1</sup>

##### **MDNR Proposed Revision:**

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<sup>1</sup> Section 393.1075.4

MDNR proposes to add the following statement to the waiver request: "If a particular end-use measure passes the probable environmental benefits test but cannot logically be bundled into programs or offered as a cost-effective stand-alone program, AmerenUE will diligently seek out opportunities to include that particular end-use measure by attempting to identify and screen additional related measures that might reasonably be combined with that particular end-use measure in a new demand-side program."

**(3) 4 CSR 240-22.050 (6)(D)**

**Current requirement:**

Design a marketing plan and delivery process to present the menu of end-use measures to the members of each market segment and to persuade decision-makers to implement as many of these measures as may be appropriate to their situation.

**Proposed Alternative:**

Include a delivery strategy that outlines the anticipated approach to promotion and delivery of the programs to the target market segment. This delivery strategy shall include basic information regarding marketing and implementation strategy as an element of program design and will outline approach, channels, and incentive, outreach and administrative processes. The strategies should be detailed enough to provide the Company and the parties with a sense of the proposed approaches as a basis for: (1) estimating program costs and aggregate load impacts and (2) making a high level assessment of the reasonableness of the proposed marketing plan and delivery strategy.

The detailed delivery strategy will be available at the time of the appropriate proceeding before program implementation.

**Rationale:**

Typically, marketing and implementation plans are prepared following the finalization of the integrated plan. The marketing plan can and should be quite detailed with respect to marketing strategy, tactics, collateral and channels, and the "delivery process" typically is represented by an implementation plan that provides considerable detail on program processes and procedures pertaining to recruiting, technical services, incentive fulfillment, verification and quality control. The current Rule implies that such detail might be provided during the IRP development process. However, developing such detail would be inefficient since it is likely that some of the programs examined at this stage might never be implemented. AmerenUE is likely to develop several DSM portfolios with different program mixes, recognizing that only one such portfolio actually will be implemented. More important, detailed marketing and implementation plans should be prepared by the entities actually implementing the programs to ensure that accountability and expertise are properly aligned. The alternative language

calls for the preparation of basic marketing and delivery strategies for each program considered in the process.

**MDNR Response:**

MDNR concurs that the detailed delivery strategy need not be provided in the IRP filing.

**MDNR Proposed Revision:**

MDNR proposes to add the following statement to the waiver: "In all cases, the detailed delivery strategy will be available by the time that the tariff implementing the measure is filed."

**(4) 4 CSR 240-22.050 (9)**

**Current requirement:**

Evaluation of Demand-Side Programs. AmerenUE shall develop evaluation plans for all demand-side programs that are included in the preferred resource plan selected pursuant to 4 CSR 240-22.070(6). The purpose of these evaluations shall be to develop the information necessary to improve the design of existing and future demand-side programs, and to gather data on the implementation costs and load impacts of programs for use in cost-effectiveness screening and integrated resource analysis.

**Proposed Alternative:**

Evaluation of Demand-Side Programs. AmerenUE shall develop process and impact evaluation strategies for all demand-side programs that are included in the preferred resource plan. These strategies shall outline the proposed approach to the impact and process evaluation for the programs. Parts (A), (B) and (C) of the rule shall be considered advisory for purposes of developing these broad strategies. AmerenUE shall develop evaluation plans consistent with 4 CSR 240-22.050 (9) after final programs have been selected and detailed implementation plans have been prepared.

The detailed evaluation plans will be available at the time of the appropriate proceeding before program implementation.

**Rationale:**

As is the case with marketing plans and implementation processes, evaluation plans typically are developed only after a final set of programs have been adopted. Moreover, evaluation plans can only be prepared once detailed program implementation plans have been completed. Detailed evaluation plans should be developed consistent with the provisions of the rule, but not at this stage. Evaluation plan effectiveness also requires that the plans should be developed by the entities retained by the Company to perform the evaluation(s). The effect of

this waiver is simply to defer the detailed plans required until after a final program set has been selected and detailed program designs have been prepared.

**MDNR Response:**

Same as MDNR's response for 4 CSR 240-22.050 (6)(D).

**MDNR Proposed Revision:**

MDNR proposes to add the following statement to the waiver: "In all cases, the detailed evaluation plan will be available by the time that the tariff implementing the program is filed."

**(6) 4 CSR 240-22.050 (11)(J)**

**Current requirement:**

A description of the process and impact evaluation plans for demand-side programs that are included in the preferred resource plan as required by section (9) of this rule and the results of any such evaluations that have been completed since the utility's last scheduled filing pursuant to 4 CSR 240-22.080.

**Proposed Alternative:**

A description of the process and impact evaluation strategies for demand-side programs that are included in the preferred resource plan as discussed in the proposed waiver of 4 CSR 240-22.050(9) and the results of any such evaluations that have been completed since AmerenUE's last scheduled filing pursuant to 4 CSR 240-22.080.

**Rationale:**

Consistent with waiver (4) proposed above.

**MDNR Response and Proposed Alternative**

AmerenUE's proposed alternative provides a list of evaluation-related items to be submitted in the filing. In MDNR view, this list should also include the following items:

- Copies of all evaluation plans that have been submitted since the previous filing per the waiver for 4 CSR 240-22.050 (9)
- Copies of the evaluation reports that have been completed since the previous filing. This is in addition to description of their results. The current rule does not require the utility to submit the full reports but this is a reasonable extension of the requirement is not in the current rule but seems a reasonable extension of the requirement in 4 CSR 240-22.050 (11)(E) to include full copies of the studies required by 4 CSR 240-22.050(5).

#### ***4 CSR 24022.060 – Integrated Resource Analysis***

MDNR wishes to respond on all five of the company's requests for a waiver or variance from the requirements of 4 CSR 24022.060.

##### **(1) 4 CSR 240-22.060 (4)**

###### **Current Requirement:**

The utility shall assess the relative performance of the alternative resource plans by calculating for each plan the value of each performance measure specified pursuant to section (2). This calculation shall assume values for uncertain factors that are judged by utility decision-makers to be most likely.

###### **Proposed Alternative:**

The utility shall assess the relative performance of the alternative resource plans based on various performance measures deemed appropriate by utility decision-makers to satisfy the resource planning objectives from section (1). The utility shall indicate which alternative resource plans are considered to be candidate resource plans for purposes of 4 CSR 240-22.070. The utility shall also describe and indicate which plans are eliminated from further consideration on the basis of the screening analysis and shall explain the reasons for their elimination. The utility shall calculate for each of the candidate resource plans the value of each performance measure specified pursuant to section (2). The calculations shall be performed for each scenario in the probability tree.

###### **Rationale:**

First, this waiver is intended to support a screening process for alternative resource plans. The utility shall determine which performance measures are most appropriate for screening and the relative weight of each factor. Once the screening is complete the utility shall expand the measures to include any from section (2) that are not already calculated.

Second, this waiver describes the requirement to calculate the performance measures for each scenario, which is fundamental to the analysis described in the 4 CSR 240-22.070 Risk Analysis and Strategy Selection waiver requests. This means that AmerenUE will perform the analysis envisioned by this rule for far more combinations of events than just a “most likely” one. This is a superior approach to the use of just a single “most likely” value for uncertain factors that are associated with a single scenario.

###### **MDNR Response:**

Full and transparent description and documentation of the company's selection of candidate resource plans is critical to commission and



intervenor review. However, the Chapter 22 rules make no reference to selection of candidate resource plans and contain no explicit requirement for description and documentation of the process by which the candidate resource plans are selected.

**MDNR Proposed Revision:**

The following statement should be added to the waiver: "AmerenUE will fully describe and document the criteria, factors and decision process used to apply the performance measures and to select candidate resource plans from the alternative resource plans."

**(2) 4 CSR 240-22.060 (4)(C)**

**Current Requirement:**

The modeling procedure shall include a method to ensure that the impact of changes in electric rates on future levels of demand for electric service is accounted for in the analysis; and

**Proposed Alternative:**

AmerenUE will account for the impact of changes in electric rates on future levels of demand for electric service in the load forecast developed pursuant to CSR 240-22.030. The Statistically Adjusted End-Use and econometric models utilized by AmerenUE for load forecasting employ a price term in their specification and a price elasticity parameter. To the extent that future rates change in either the base case or in any scenarios, the change in rates will result in a corresponding change in the forecasted demand. The change in retail rates used in load forecast modeling is based on application of the results of the integrated model runs of the energy and environmental system to AmerenUE's revenue requirement. The energy and environmental system model simultaneously simulates interactions in fuel markets, energy demands, electricity generation system operation, non-electricity sector outcomes, macroeconomic activity levels, and responses to emissions limits that may be applied to sources throughout the economy, and not just to electricity generators.

**Rationale:**

Including this impact in the integration analysis modeling procedure would be an iterative exercise by estimating changes in electric rates then for each alternative resource plan re-estimate electric rates and re-create alternative resource plans based on the impact on future levels of demand for electric service. This impact is adequately covered in the load forecast.

**MDNR Response**

In 4 CSR 240-22.020(17), "rate structures" are included in the definition of energy efficiency measures that the utility is to analyze. Analysis of rate structures - for

example, declining block rates - as energy efficiency measures requires formulating alternative demand-side rates and assessing their impact on demand. Although some iterative calculations may be required, the formulation, screening and analysis of demand-side rates, like that for other demand-side options, must occur independently of the base load forecast.

**MDNR Proposed Revision:**

MDNR proposes to add the following statement to AmerenUE's proposed alternative: "The impact of demand-side rate structures shall be analyzed separately from the development of the load forecast described in the preceding paragraph."

**(3) 4 CSR 240-22.060 (6)(A)**

**Current Requirement:**

A description of each alternative resource plan including the type and size of each resource addition and a listing of the sequence and schedule for retiring existing resources and acquiring each new resource addition;

**Proposed Alternative:**

A description of each candidate resource plan including the type and size of each resource addition and a listing of the sequence and schedule for retiring existing resources and acquiring each new resource addition;

**Rationale:**

Candidate resource plans emerge from the original population of all alternative resource plans because they are considered to be the better plans by a variety of measures, and they are generally comparable representatives of the original population of all alternative resource plans. Thus reporting the required information for only the candidate resource plans focuses the reporting on the most relevant and most useful plans.

**MDNR Response:**

AmerenUE's filing should include descriptions of all alternative resource plans that are screened, both those that are eliminated through screening and those that are selected to become candidate resource plans.

It is MDNR's understanding that to screen an alternative resource plan, the company must specify the sequence and schedule for resource additions and retirements and the type and size of each resource addition. Parties need these specifications as the basis for reviewing the screening process.

The company commits in its proposed waiver to 4 CSR 240-22.060 (4) to explain its reasons for eliminating specific alternative resource plans. However, without a full description of the plans that are eliminated, the Commission and other parties cannot independently review the company's explanations.

AmerenUE's stated reason for not reporting descriptions of the alternative resource plans that do not pass the screening process is to "focus the reporting on the most relevant and most useful plans." This purpose would be better achieved by reserving the main volumes of the filing for descriptions of candidate plans and providing the descriptions of the other plans in a supplemental volume.

Parties could submit data request to obtain this information; however, the solution suggested here provides the information in a more timely manner and is probably less resource intensive than the process of preparing and responding to data requests.

**MDNR Proposed Revision:**

Add the following paragraph to AmerenUE's proposed waiver: "A description of each alternative resource plan that did not pass screening, including the type and size of each resource addition and a listing of the sequence and schedule for retiring existing resources and acquiring each new resource addition. This description will be included in a supplemental volume of the filing and will be equivalent in detail and clarity of exposition to descriptions provided for candidate resource plans."

**(4) 4 CSR 240-22.060 (6)(B)**

**Current Requirement:**

A summary tabulation that shows the performance of each alternative resource plan as measured by each of the measures specified in section (2) of this rule;

**Proposed Alternative:**

A summary tabulation that shows the performance of each candidate resource plan as measured by each of the measures specified in section (2) of this rule;

**Rationale:**

Candidate resource plans emerge from the original population of all alternative resource plans because they are considered to be the better plans by a variety of measures, and they are generally comparable representatives of the original population of all alternative resource plans. Thus reporting the required information for only the candidate resource plans focuses the reporting on the most relevant and most useful plans.

**MDNR Response:**

When assessing the process used to select the candidate resource plans, the parties and Commission are likely to require information concerning the performance of the alternative resource plans that were eliminated.

The rationale provided by the company is that "reporting the required information for only the candidate resource plans focuses the reporting on the most relevant and most useful plans." This purpose would be better achieved by reserving the main volumes of the filing for the results for candidate plans and providing the results for the other plans in a supplemental volume.

Parties could submit data request to obtain this information; however, the solution suggested here, provides the information in a more timely manner and is probably less resource intensive than the process of preparing and responding to data requests.

**MDNR Proposed Revision:**

Add the following paragraph to AmerenUE's proposed waiver: "For each alternative resource plan that did not pass screening, a summary tabulation that shows the performance of each candidate resource plan as measured by each of the measures specified in section (2) of this rule. The tabulation will be included in a supplemental volume of the filing and will be equivalent in detail and clarity of exposition to the tabulation provided for candidate resource plans."

**(5) 4 CSR 240-22.060 (6)(C)**

**Current Requirement:**

For each alternative resource plan, a plot of each of the following over the planning horizon:

**Proposed Alternative:**

For each candidate resource plan, a plot of each of the following over the planning horizon:

**Rationale:**

Candidate resource plans emerge from the original population of all alternative resource plans because they are considered to be the better plans by a variety of measures, and they are generally comparable representatives of the original population of all alternative resource plans. Thus reporting the required information for only the candidate resource plans focuses the reporting on the most relevant and most useful plans.

**MDNR Response:**

The requirement of 4 CSR 240-22.060 (6)(C) is for "plots." In MDNR's experience, graphic representation of the data in a plot or chart has limited value for purposes of reviewing the analysis presented in the filing unless the plot or chart is accompanied by a table of the underlying data.

Therefore, MDNR proposes that AmerenUE commit to provide a tabulation of the data underlying each of the plots or charts.

**MDNR Proposed Revision:**

"For each candidate resource plan, a plot and tabulation of underlying data of each of the following over the planning horizon:"

***Other***

**(1) 4 CSR 240-22.040(1)(K) - Commission Order in Case EO-2007-0409**

MDNR wishes to respond on the company's final waiver request, which is a request for waiver of a previous Commission order rather than a request for waiver of a Chapter 22 provision.

**Current Requirement:**

This section of the Supply-Side Resource Analysis provisions of the IRP rule requires AmerenUE to evaluate the environmental impacts of the various supply-side resource options. The Sierra Club alleges this portion of the IRP filing is deficient because it fails to evaluate the environmental impacts associated with the release of radioactive tritium and noble gases (krypton and xenon) from the Callaway I nuclear plant. The Sierra Club agrees with AmerenUE that the company is not currently required to take any action regarding the release of these materials. However, the Sierra Club speculates the NRC may at some time in the future require AmerenUE to take steps to process and isolate these materials, potentially at a significant cost. The Sierra Club has identified an area of concern that could affect the cost of operating the Callaway Nuclear Plant as a supply-side resource in the future. The Commission directs AmerenUE to consider these potential costs in its next IRP filing.

**Proposed Alternative:**

AmerenUE is requesting a complete waiver from the requirement.

**Rationale:**

At this time AmerenUE decision-makers conclude, relating to this issue, there is a zero probability of change to the existing environmental laws or regulations that may be imposed within the planning horizon. AmerenUE fully complies with the existing regulations associated with releases of these materials with large margins to the release limits. As delineated in the Commissions Final Order, this is a regulation change Sierra Club *speculates* is in the planning horizon. There are no proposals from US EPA, NRC, or legislature to change the regulations associated tritium or other noble gases releases. With no guidance of a regulatory regime, there is little value in considering these potential costs at this time.

**MDNR Response:**

AmerenUE argues that there is zero probability that the particular pollutants specified in the Commission's order will be regulated within the planning horizon and that the analysis ordered by the Commission should therefore be waived.

MDNR was not involved in the discussion of this issue in EO-2007-0409 and is not taking any position on the facts in this case. However, the assertion that there is zero probability of additional regulation during the planning period does not appear credible. It is MDNR's understanding that there are few regulations governing management of tritium at nuclear facilities and that there have been tritium leaks at many nuclear facilities in past years. At the present time, the issue of tritium leaks at nuclear facilities has attracted public attention due to controversy surrounding leaks from the Vermont Yankee nuclear facility into surrounding ground water and the Connecticut River.

MDNR's view is that it would be appropriate for the utility to withdraw this waiver request and present its analysis and argument in the 2011 IRP filing. The Commission should not be asked in the context of a waiver request to overturn a decision it made based on information presented by the utility and parties in EO-2007-0409.

Furthermore, 4 CSR 240-22.080(9) specifies that "the commission may waive or grant a variance from a provision of this chapter for good cause". The waiver provision of Chapter 22 does not extend to modification of a Commission order. In MDNR's view, incorporation into the analytic process of EE-2010-0243 represents a better forum than a waiver request for full and impartial review of this and other resource issues.