

Appendix A

Parties' Comments on Ameren Missouri's IRP File No. EO-2011-0271

Section: 4 CSR 240-22.010 Policy Objectives

Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)

Party: Staff

Level: Concern #F

Comment: Ameren Missouri has made very limited effort to achieve the DSM cost recovery solution necessary for it to choose Plan R0 as its preferred resource plan under current environmental regulations.

Remedy: Ameren Missouri should: 1) prepare a filing under the Commission's MEEIA rules or, if the MEEIA rules are stayed due to legal action, under Section 393.1075, RSMo Supp. 2010; and 2) should the Company receive Commission approval of a DSIM which provides sufficient cost recovery and financial incentives to implement the RAP DSM portfolio, provide notification to the Commission as required by rule 4 CSR 240-22.080(10) that the Company's preferred resource plan is no longer appropriate and advise the Commission of the selected contingency option for its adapted preferred resource plan.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)

Party: MDNR

Level: Deficiency #04

Comment: Identification of planning objectives: The company's specification of planning objectives is inadequate because the two- to four-word phrases that the company provides do not clearly state the outcome that the company desires.

Remedy: In a supplemental filing, Ameren Missouri should explicitly state its planning objectives. Ameren Missouri's senior management provided the initial identification of planning objectives and should be involved in formulating the revised planning objectives. The revised objectives should include, in addition to an objective related to minimization of utility costs, objectives for the other five categories that are identified in the filing, as follows:

- An explicit statement of Ameren Missouri's policy and planning objectives with respect to financial considerations and the related regulatory framework;
- An explicit statement of Ameren Missouri's policy and planning objectives with respect

to environmental impact, environmental regulations, resource diversity and/or renewable resources;

- An explicit statement of Ameren Missouri's policy and planning objectives with respect to customer satisfaction;
- An explicit statement of Ameren Missouri's policy and planning objectives with respect to economic development;
- An explicit statement of Ameren Missouri's policy and planning objectives with respect to expenditures on and/or energy savings from energy efficiency and other demand-side resources; and
- An explicit statement of any other policy and planning objectives that is suggested by review of the performance measures that are listed in 4 CSR 240-22(060)(2). The company should review and report in the supplemental filing whether this clarification and refinement of planning objectives would result in any revisions in the analysis presented in the filing. In its next regularly scheduled resource filing, the company should adopt the Chapter 22-based term "planning objectives" as a replacement for the term "policy objectives".

Alternatively, if the company determines that this substitution is not appropriate, the supplemental filing should explain the relationship of the two concepts to each other and to the rule provisions that pertain to planning objectives.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)

Party: MDNR

Level: Deficiency #06

Comment: Compliance with the "primary selection criterion" requirement in selecting the preferred resource plan: The company does not adequately demonstrate that it complied with rule requirements when it rejected the plan based on realistic achievable potential (RAP) DSM.

Remedy: In a supplemental filing, the company should provide a completely documented contingency analysis that incorporates alternative state policy scenarios, scenarios for incentive payments and scenarios for lost revenue recovery, demonstrating the justification for the company's selection of a "low-risk DSM plan" over a "RAP" DSM plan.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(A)

Party: OPC

Level: Deficiency #02

Comment: UE failed to develop alternative resource plans that capture the full range of demand-side resources. UE also failed to comply with the Commission's order in Case No. EO-

2007-0409 wherein the Commission states that it “directs AmerenUE to model an even more aggressive approach to encourage participation in demand-side management programs in its next filing.

Remedy: This deficiency should be remedied by UE re-running its analysis to select a Preferred Resource Plan. In the new runs, the alternative resource plans analyzed should include a broader range of demand-side resource portfolios, including both energy efficiency and demand response, and including savings levels above those in the Reasonably Achievable Potential Portfolio. These additional portfolios are necessary in order to allow the model to identify the level of demand-side resources that will lead to the minimization of the present value of revenue requirements. UE should (1) conduct analysis to determine the optimal amount of energy efficiency and demand response that when combined with different supply-side resources will minimize PVRR and/or (2) use the capacity expansion module in MIDAS to determine optimal combinations of supply and demand side resources for minimizing PVRR under a range of future scenarios.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(A)

Party: MDNR/GDS

Level: Deficiency #08

Comment: Ameren Missouri has not considered DSM on an equivalent basis with supply-side alternatives

Remedy: a. Prior to agreement of the parties in Case EO-2011-0271, Ameren Missouri should clearly articulate its position regarding the “better” DSM cost treatment that it would require to increase its DSM spending beyond that which is proposed in the Low Risk portfolio. This should include the recommended financial treatment of DSM that would cause the company to move forward with either the RAP or MAP options. b. Prior to agreement of the parties in Case EO-2011-0271, Ameren Missouri should conduct and present analysis of the impact on the selection of candidate resource plans of changing the weighting factor applied to PVRR from 25%, looking at various alternative weighting factors that would meet the requirement that PVRR be the primary selection criterion. GDS suggests that at a minimum Ameren Missouri should analyze the impact of assigning a 50% weighting factor to PVRR. c. Prior to agreement of the parties in Case EO-2011-0271, Ameren Missouri should provide the results of their review of the impact of a different IRP load forecast (compared to the forecast that GEP used in their potential analysis) that is referenced on pages 98-99 of the Transcript of the September 14, 2010 Stakeholder Meeting (see footnote 56)

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(A).

Party: NRDC

Level: Deficiency #01

Comment: Ameren did not consider demand-side options on an “equivalent basis” with supply-side alternatives as required under 4 CSR 240-22.010(2)(A).

Remedy: Ameren should rescreen its candidate resource plans without this “economic development” criterion, and should assign its 10% weight to PVRR, to better reflect the importance of that objective.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(B) and 070(6)(A)

Party: Staff

Level: Deficiency #02

Comment: Ameren Missouri did not use minimization of the present worth of long- run utility costs as the primary selection criterion in choosing its preferred resource plan as required by rules 4 CSR 240-22.070(6)(A) and 4 CSR 240-22.010(2)(B).

Remedy: Ameren Missouri should assign at least a majority of the weighting in the preferred resource plan selection process to present worth of long- run utility costs policy objective (as measured by risk adjusted PVRR) in its future Chapter 22 filings including its April 1, 2012 annual update filing.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(B)

Party: OPC

Level: Deficiency #01

Comment: UE failed to use the minimization of present value of revenue requirements (PVRR) as the primary selection criterion in choosing the preferred resource plan.

Remedy: This deficiency should be remedied by UE re-running its IRP analysis and then selecting a Preferred Resource Plan based on the results of the new analysis. After the new IRP analysis addressing all of OPC’s deficiencies is completed, then the Company should use the minimization of the present value of revenue requirements as the primary selection criterion in selecting its Preferred Resource Plan.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(B)

Party: MDNR

Level: Concern #04

Comment: Selection of preliminary candidate plans: The 25% weight that the company assigns to cost minimization in its preliminary selection of candidate resource plans does not reflect the Chapter 22 requirement that cost minimization be treated as the primary selection criterion

Remedy: If the decision process used for the company’s next regularly scheduled filing makes

similar use of a weighted index for determining candidate resource plans, the company should discuss with stakeholders the weights that will be assigned to the planning objectives and performance measures prior to final determination of the weights.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(B) and (C)

Party: NRDC

Level: Deficiency #02

Comment: Ameren's Selection Criteria Failed to Prioritize Minimizing Present Value Worth, and Failed to Adequately Justify the Use of Alternative Criteria. 22.010(2)(B) and (C), 22.060(2) and (4)

Remedy: a. Ameren should recreate its modeling, risk analysis and plan selection process to treat energy efficiency on an equivalent basis with supply-side resources. Accordingly, Ameren analysis must

- (1) Use a corrected potential study that accurately reflects the true potential for cost-effective energy efficiency for all customer classes throughout its service territory;
- (2) Allow DSM to freely compete with supply side resources on price for the purposes of capacity planning;
- (3) Include emerging technologies for DSM as well as supply-side analysis;
- (4) Employ assumptions about the favorability of ratemaking policies that are consistent between the demand and supply-side resources;
- (5) Analyze a DSM scenario that at least meets the minimum goals articulated in the MEEIA DSM Rules; and
- (6) Credit DSM with providing resource diversity in the selection criteria.

b. Ameren should be required to articulate and follow clear plan selection criteria that, when deviating from minimization of present value of revenue requirement, have a reasonable relationship to the fundamental planning objectives specified by the rule and are consistent with the equivalent treatment of demand-side resources.

c. While Ameren is revising its potential study and plan analysis to remedy the deficiencies, the Commission should require the company to continue to offer its current suite of programs at the current budget levels.

d. Ameren should be required to simultaneously file a revised DSM potential study, IRP analysis and a plan under the MEEIA statute, including a proposed demand side investment mechanism by no later than 90 days following a final order in this docket.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(C)

Party: NRDC

Level: Deficiency #15

Comment: Ameren Fails to Adequately Account for the Risk to Ratepayers Caused by the Company's Overreliance on Coal Generation As Required by 4 CSR 240-22.010(2)(C) and 4 CSR 240-22.070(2)

Remedy: The Commission should require Ameren to carry out additional resource planning that is based on assumptions that are consistent with the regulatory and other conditions facing Ameren's electric generating units, rather than on scenarios that the Company itself does not think will occur.

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: 010(2)(C)

Party: MDNR

Level: Deficiency #02

Comment: Failure to perform contingency analysis for DSM cost recovery decision factor: The company agreed to perform a contingency analysis for the DSM cost recovery decision factor during the September 14 stakeholder meeting. Furthermore, given that the company treated this decision factor as a constraint on the least-cost plan, such analysis is required by 4 CSR 240-22.010(2) (C). The company does not present the contingency analysis in the filing or demonstrate that it was performed.

Remedy: In a supplemental filing, the company should present a contingency analysis for the DSM cost recovery decision factor as described to stakeholders in the September 14, 2010 stakeholder meeting. Furthermore, in this supplemental filing, the company should state whether it considers its analysis of the DSM cost recovery decision factor to constitute a constraint on selection of the least cost alternative resource plan and if so, should demonstrate that the contingency analysis in the supplemental filing is sufficient to meeting the requirements of 4 CSR 240-22.010(2)(C).

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Section: 4 CSR 240-22.010 Policy Objectives

Rule Citation: MEEIA

Party: NRDC

Level: Deficiency #03

Comment: Ameren Refuses to Acknowledge the Existing Regulatory Framework for Energy Efficiency

Remedy: Ameren should rescreen its candidate resource plans without this "economic development" criterion, and should assign its 10% weight to PVRR, to better reflect the importance of that objective.

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Section: 4 CSR 240-22.030 Load Analysis and Forecasting

Section: 4 CSR 240-22.030 Load Analysis and Forecasting

Rule Citation: 030(2)(A)

Party: MDNR/GDS

Level: Deficiency #01

Comment: Ameren Missouri's choice of load forecast drivers is suspect

Remedy: (a) Prior to agreement of the parties in Case EO-2011-0271, Ameren Missouri should rerun its base load forecast with Moody's most current economic projection and compare the results to its IRP filing. If the results of this effort are significantly different from the load forecast used in the IRP, the Company should discuss how a revised load forecast would affect its preferred resource plan.

(b) Prior to agreement of the parties in Case EO-2011-0271, Ameren Missouri should prepare an alternative projection for industrial sales that is based upon Moody's manufacturing employment forecast. If the results of this effort are significantly different from the planning forecast used in the IRP, the Company should discuss how a revised load forecast would affect its preferred resource plan.

(c) In the interim period prior to its next regularly scheduled compliance filing, Ameren Missouri should consider how it could incorporate national efficiency standards into its econometric forecast for the industrial sector.

(d) Prior to agreement of the parties in Case EO-2011-0271, Ameren Missouri should clearly identify the driver variables it has used in preparing its residential sales forecast. Assuming that it has used Moody's forecast of households and household income, the Company should identify what difference it would make if residential customers were used instead of Moody's household forecast. Ameren Missouri should also explain why its expectation for residential customer growth is different from Moody's expectation for household growth.

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Section: 4 CSR 240-22.030 Load Analysis and Forecasting

Rule Citation: 030(3)(B)(2)

Party: MDNR/GDS

Level: Deficiency #02

Comment: Ameren Missouri's estimates of the end-use contribution to peak demand are dubious

Remedy: (a) In the interim period prior to its next regularly scheduled compliance filing, Ameren Missouri should clarify the extent to which its DSM analysis is affected by its assumptions related to residential and commercial end-use contributions to peak load. If the demand-side resource analysis is sensitive to these assumptions, Ameren Missouri should consider conducting a load research study related to residential air conditioning use in its service territory. This study would provide an empirical basis for its cooling load shape assumptions. (b) In the interim period prior to its next regularly scheduled compliance filing, Ameren Missouri should determine the exact sources of Itron's end-use load profiles. Further,

Ameren Missouri needs to better support the proposition that it is reasonable for the Company to use Itron's end-use load profiles as proxies for its service territory in Missouri.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1)

Party: OPC

Level: Deficiency #03

Comment: UE failed to properly characterize and model renewable resources, particularly wind resources

Remedy: This deficiency should be remedied by UE re-running its analysis to select a Preferred Resource Plan. In the new runs the IRP should include a set of wind resources with (a) no associated peaking capacity required, (b) nameplate capacities in much smaller increments (i.e., 50 MW), and (c) a reasonable range of costs and capacity factors representing the likely range of renewable options.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1)

Party: NRDC

Level: Deficiency #16

Comment: Ameren Significantly Underestimates the Risk of Nuclear Construction Cost Overruns

Remedy: In order to ensure that Ameren's IRP accurately reflects the costs of various energy alternatives, the Commission should require Ameren to re-evaluate the projected cost of pursuing a new nuclear facility, rely on up-to-date cost estimates in doing so, and factor in the industry's history of cost overruns.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1)

Party: NRDC

Level: Deficiency #E

Comment: Ameren Significantly Underestimates the Risk of Nuclear Construction Cost Overruns

Remedy: In order to ensure that Ameren’s IRP accurately reflects the costs of various energy alternatives, the Commission should require Ameren to re-evaluate the projected cost of pursuing a new nuclear facility, rely on up-to-date cost estimates in doing so, and factor in the industry’s history of cost overruns.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1)

Party: MDNR/GDS

Level: Deficiency #03

Comment: Ameren Missouri did not adequately defend its dismissal of purchased power options from consideration in the IRP

Remedy: In its next regularly scheduled compliance filing, Ameren Missouri should provide a quantitative demonstration of the availability of purchased power opportunities. In the event that the decision is made to retire Meramec, Ameren Missouri should evaluate purchased power opportunities, in addition to self-build options, as potential sources of supply.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1)

Party: MDNR/GDS

Level: Deficiency #07

Comment: Ameren Missouri did not consider renewable energy resources that could be developed by independent power producers

Remedy: In its next regularly scheduled compliance filing, Ameren Missouri should provide a comprehensive and accurate consideration of IPP options, including “non utility scale” systems as part of its renewable energy planning. The analysis should include a review of other utilities’ methods for acquiring such resources and not be based solely on cost based assumptions used by Ameren Missouri or Black and Veatch. Given the complexities of scale economies and range of potential technologies and resources, the analysis should be based on research related to the provision of renewable energy via IPPs in the current market, with a projection of future uptake, including known tax benefits as well as contingencies for future tax benefit opportunities that would impact the price of IPP provided renewable energy

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1)(E)-(J)

Party: NRDC

Level: Deficiency #07

Comment: The Company's analysis is deficient in failing to consider the effect of aging on the capital requirements and operating performance of its existing coal fleet as required by 4 CSR 240-22.040(1)(E)-(J) and 4 CSR 240-22.040(8)(B)-(C).

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliably and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that: (1) does not include the four Meramec units after 2022, (2) uses a reasonable range of assumptions about age-related increases in operating, maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and (3) evaluates all of Ameren's coal units, rather than just the Meramec units. Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1)(E)-(J).

Party: NRDC

Level: Deficiency #08

Comment: The Company's analysis is deficient because it failed to include an assessment of Ameren's coal units besides Meramec in contravention of 4 CRS 240-22.040(1)(E)-(J).

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliably and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that:

- (1) does not include the four Meramec units after 2022,
- (2) uses a reasonable range of assumptions about age-related increases in operating, maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and
- (3) evaluates all of Ameren's coal units, rather than just the Meramec units.

Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1).

Party: NRDC

Level: Deficiency #05

Comment: Ameren Erroneously Failed to Evaluate Critical Factors Regarding Whether the Company's Existing Coal Units Would Retire or Continue to Operate During the Planning Period.).

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliability and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that:

- (1) does not include the four Meramec units after 2022,
- (2) uses a reasonable range of assumptions about age-related increases in operating, maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and
- (3) evaluates all of Ameren's coal units, rather than just the Meramec units.

Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(1).

Party: NRDC

Level: Deficiency #06

Comment: The Company's analysis is deficient because it assumes the continued operation of the Meramec coal generating units far past their likely retirement date in contravention of 4 CSR 240-22.040(1)

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliability and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that:

- (1) does not include the four Meramec units after 2022,
- (2) uses a reasonable range of assumptions about age-related increases in operating,

maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and

(3) evaluates all of Ameren's coal units, rather than just the Meramec units.

Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(2)(B)

Party: NRDC

Level: Deficiency #14

Comment: The Company's Analysis Consistently and Significantly Underestimates the Value of Carbon Emission Reductions Rendering the Plan Deficient in Meeting 4 CSR 240-22.040(2)(B) and 4 CSR 240-22.010(2)(C)(2)

Remedy: Ameren should revise its planning scenarios and risk analysis to reflect a more realistic range of probabilities for carbon regulation in the 5, 10, 15 and 20 year timeframes, and assume CO2 costs that are consistent with those put forth by Black & Veatch and Synapse

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)

Party: OPC

Level: Deficiency #04

Comment: UE failed to properly identify the full range of likely construction times or project costs for its new nuclear units, and failed to conduct sensitivity analyses of these critical uncertain factors.

Remedy: This deficiency should be remedied by UE re-running its analysis to select a Preferred Resource Plan. The new runs should use more realistic assumptions regarding the cost and construction times of new nuclear generators. More importantly, the Company should run sensitivity analyses to assess the critical uncertain factors associated with the new nuclear units, including construction costs, financing costs and construction times, as required by 4 CSR 240-22.070(2). Prior to re-running its analysis, UE should consult AEO 2011 estimates for the costs of new nuclear plant along with other reliable up-to-date cost estimates.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)(A)(2)

Party: MDNR/GDS

Level: Deficiency #04

Comment: Ameren Missouri did not present any discussion of the historic forecast accuracy of previous fuel price forecasts produced by Charles River Associate's MM-NEEM model

Remedy: In its next regularly scheduled compliance filing, Ameren Missouri should address the issue of previous forecast accuracy as a criterion for selecting providers of fuel price forecasts.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)(A).

Party: NRDC

Level: Deficiency #09

Comment: The Company's Analysis Is Deficient in That It Fails to Adequately Assess Fuel Prices as Required by 4 CSR 240-22.040(8)(A).

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliability and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that:

- (1) does not include the four Meramec units after 2022,
- (2) uses a reasonable range of assumptions about age-related increases in operating, maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and
- (3) evaluates all of Ameren's coal units, rather than just the Meramec units.

Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)(A).

Party: NRDC

Level: Deficiency #10

Comment: Ameren's natural gas price forecasts are unreasonably high

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the

goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliability and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that:

- (1) does not include the four Meramec units after 2022,
- (2) uses a reasonable range of assumptions about age-related increases in operating, maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and
- (3) evaluates all of Ameren's coal units, rather than just the Meramec units.

Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)(A).

Party: NRDC

Level: Deficiency #11

Comment: Ameren apparently underestimates the significance of increased gas production through unconventional technologies on gas prices

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliability and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that:

- (1) does not include the four Meramec units after 2022,
- (2) uses a reasonable range of assumptions about age-related increases in operating, maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and
- (3) evaluates all of Ameren's coal units, rather than just the Meramec units.

Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)(A).

Party: NRDC

Level: Deficiency #12

Comment: Hedging against remaining risk from natural gas price volatility does not warrant retrofitting aging coal plants

Remedy: Ameren's own studies, including those done by Black & Veatch and Burns & McDonnell provide strong evidence that Meramec's four units will retire for age-related reasons (setting aside environmental regulations) well before the end of the planning period, or will be operating at a much lower capacity factor by 2022. To ignore this reality is to undermine the goal of the planning process itself, which is to ensure that the Company has put in place the resources to safely, reliably and efficiently provide service at just and reasonable rates. 4 CSR 240-22.010(2). In order to remedy these deficiencies, the Commission should require Ameren to conduct a new risk assessment and plan selection process that:

- (1) does not include the four Meramec units after 2022,
- (2) uses a reasonable range of assumptions about age-related increases in operating, maintenance and capital costs, and a reasonable range of assumptions about age related increases in forced outages or reduction in operating efficiency, and
- (3) evaluates all of Ameren's coal units, rather than just the Meramec units.

Such evaluations should be based on independent studies that reflect the experience of plants across the country.

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Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)(A).

Party: NRDC

Level: Deficiency #13

Comment: Ameren's Coal Price Forecasts Do Not Reflect Expected Upward Pressure on Coal Prices

Remedy: Ameren should conduct new scenario modeling and analysis using the Energy Information Administration's natural gas price forecasts as the "low" price projection in the IRP, the Company's current "low" forecast as their "base" case, and their current "base" case price forecast as their "high" case. Ameren should also assign a probability of at least one-third to the Energy Information Administration price forecasts in the probability tree, and should evaluate converting existing natural gas combustion turbines to natural gas combined cycle facilities and purchasing unused capacity at existing underutilized natural gas combined cycle facilities as additional resource options in the IRP. Moreover, Ameren should adjust its coal price forecasts to take into consideration new factors including increased coal exports and revised coal reserve estimates, or document that its model already takes those factors into consideration.

Page in Party's Report: 41

Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 040(8)(B)(2)

Party: MDNR/GDS

Level: Deficiency #05

Comment: Ameren Missouri did not adequately consider the factors that may cause uncertainty associated with supply-side capital and O&M costs

Remedy: In its next regularly scheduled compliance filing, Ameren Missouri should identify and provide a discussion of the critical uncertain factors that may cause capital & O&M costs to vary significantly along with price variations and probability distributions that were provided in the 2011 IRP. In a supplemental filing, Ameren Missouri should provide a detailed discussion of Ameren Missouri's consideration of critical uncertain factors that affect the upper boundary of fuel costs, non-carbon environmental compliance costs and other capital and O&M costs for Ameren's existing fleet of coal-fired power plants over the 20-year planning horizon. Additional details of the information and analysis that should be included in this supplemental filing appear in the proposed remedy for MDNR Deficiency #11.

Page in Party's Report: 22

Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 22.040(1)

Party: NRDC

Level: Deficiency #17

Comment: Ameren fails to include wind at 100 meters, 22.040(1) and EO-2007- 0409 Stip. #14

Remedy: Ameren should re-evaluate wind at hub heights of 100 and 120 meters.

Page in Party's Report: 56

Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 22.040(2)

Party: NRDC

Level: Deficiency #19

Comment: Ameren fails to justify its elimination of wind as a stand-alone resource, 22.040(2)

Remedy: Remove Wind/SC from the list of preliminary candidate resource plans (Table 9.5) and add Wind-only and Wind-CAES.

Page in Party's Report: 57

Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: 22.040(2)(C)

Party: NRDC

Level: Deficiency #18

Comment: Ameren Does Not Adequately Justify its Choice of Pumped Storage Over

Compressed Air In Violation of 22.040(2)(C) and 22.040(9)(A)3

Remedy: In its Table 9.5 (Plan at 9–12) of preliminary resource plans, Ameren should substitute CAES for PS and Wind/CAES for Wind/SC.

Page in Party's Report: 56

Section: 4 CSR 240-22.040 Supply-Side Resources Analysis

Rule Citation: Stipulation EO-2009-0437

Party: MDNR/GDS

Level: Deficiency #06

Comment: Ameren Missouri failed to address several critical wind energy factors

Remedy: Ameren Missouri should comply with Stipulation Agreement EO-2009- 0437, by addressing all of the following deficiencies that are discussed above. Specifically Ameren Missouri should:

- In a supplemental filing prior to agreement of the parties in Case EO- 2011-0271, Ameren Missouri should document its assumptions regarding the timing of transmission capacity upgrades as it relates to the potential wind energy resources
- Prior to agreement of the parties in Case No. EO-2011-0271, Ameren Missouri should analyze the impact of capacity factors for the best commercially available wind sites in addition to the average capacity factors that were used in the IRP.
- In a supplemental filing prior to agreement of the parties in Case No. EO-2011-0271, Ameren Missouri should present a more detailed discussion to support their decision not to consider long term power for wind energy.
- In the interim period prior to its next regularly scheduled compliance filing, Ameren Missouri should identify multi-county regions with a characterization of the wind resources available to each and the transmission upgrades required to access those resources.

Page in Party's Report: 23

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050 (3)

Party: Staff

Level: Deficiency #01

Comment: Ameren Missouri did not perform cost-effectiveness screening for a modified Rider L program or for potential customer education programs provided by third party providers such as OPOWER. Rule 4CSR 240-22.050 (3).

Remedy: Ameren Missouri should: 1) perform cost-effectiveness screening for revised Rider L program based upon the incorporation of the ADM report recommendations and stakeholder input from File No. EO-2009-0437 as part of its next IRP filing, and 2) contact OPOWER to obtain its input as to a recommended program scope and implementation cost and perform a cost-effectiveness screening based upon this data as part of its next IRP filing. Further, Ameren Missouri should evaluate the cost-effectiveness of a revised Rider L program and of the OPOWER program for its service territory and present the evaluation results to its DSM stakeholders for discussion.

Page in Party's Report: 19

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(1)(D)

Party: MDNR/GDS

Level: Deficiency #11

Comment: Ameren Missouri failed to consider significant combined heat and power (CHP) potential identified in its distributed generation (dg) potential study

Remedy: Within 120 days following the Commission approval of agreement on this remedy, Ameren Missouri should provide a detailed analysis to support the elimination of CHP as a primary DG resource option that at a minimum considers all of the potential benefits identified by the Combined Heat & Power Partnership of the U.S. Environmental Protection Agency.

Page in Party's Report: 41

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(11)

Party: MDNR/GDS

Level: Deficiency #10

Comment: Ameren Missouri failed to document market studies that are planned or in progress.

Remedy: (a) Within 90 days following Commission approval of agreement on this remedy, Ameren shall file its plans for future research as required by 4 CSR 240- 22.050(5), including the research referenced in the remedy to MDNR/GDS Deficiency #9. These plans shall include at least the following elements:

- a. Purpose of the research and questions it is intended to answer,
- b. Tentative start and completion dates,
- c. Proposed methodology,
- d. State whether the company intends to contract with an outside consultant to conduct or evaluate the research,
- e. State whether the company intends to solicit stakeholder input, and f. an indication of the nature and timing of the input.

Page in Party's Report: 41

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(2)

Party: Staff

Level: Concern #A

Comment: Ameren Missouri did not consistently use the value for avoided capacity costs in various calculations in its IRP. Rule 4 CSR 240-22 050(2).

Remedy: Ameren Missouri should review its calculations to assure that it utilized the correct MISO CONE value for avoided costs. If Ameren Missouri did not use the MISO CONE value in the calculation, then the calculation should be revised and the new results submitted in the next IRP filing.

Page in Party's Report: 20

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(2)

Party: MDNR/GDS

Level: Deficiency #13

Comment: Ameren Missouri's T&D avoided cost methodology relies on unsubstantiated "adjustment factors" and is inappropriate for assessing the value of targeted DSM

Remedy: a. In the next regularly scheduled compliance filing, Ameren Missouri should develop a more rigorous and well documented approach for the development of avoided T&D costs to support the cost effectiveness analysis of DSM resources that are expected to be uniformly distributed over the service area. If judgmental "adjustment factors" continue to be utilized, Ameren should provide documentation to support the assumed adjustment factors and also test the sensitivity of DSM cost effectiveness to a reasonable uncertainty range around each adjustment factor.

b. Within 60 days, Ameren Missouri should be required to provide a detailed scope of work and schedule for its development of new tools that can interface with the Transformer Load Management system to identify targeted DSM opportunities with the goal of incorporating new planning tools into the next IRP

Page in Party's Report: 46

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(5)

Party: MDNR/GDS

Level: Deficiency #09

Comment: Ameren Missouri's conclusions regarding their customer's interest in DSM ignore a critical market research finding regarding the potential connection between low customer satisfaction and DSM program participation rates

Remedy: (a) Within 90 days following Commission approval of agreement on this remedy, Ameren shall initiate additional research to determine:

1. Whether customer satisfaction has changed significantly during the interim period among those groups that are identified in Volume 2 of the Market Potential Study.
2. Whether customer satisfaction has been influenced by Ameren's DSM efforts since the GEP study was conducted.
3. How Ameren can improve customer satisfaction (and hence DSM program participation), especially among those groups that are identified in Volume 2 of the Market Potential Study as having the lowest levels of satisfaction with Ameren Missouri as an energy provider

(b) Within 270 days following Commission approval of agreement on this remedy, Ameren shall, develop and implement an action plan, with measurable goals, to improve customer satisfaction, if this is still found to be a problem among certain customer groups.

(c) Ameren's next annual filing shall address the impact that improved customer satisfaction will have on DSM program penetration rates, to include a discussion of the progress and results of these efforts in its annual report.

Page in Party's Report: 37

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(5)

Party: MDNR

Level: Concern #06

Comment: Sampling issues with the company's DSM Market Potential Study. While MDNR applauds the company's effort to undertake a comprehensive assessment of DSM savings potential in its service territory, we are concerned that the company's Market Potential Study was based on a non-random quota sample, rather than on a stratified random sample. While the use of quota samples in potential studies is not uncommon, such samples do not yield

results that are representative of a population and do not allow for the use of standard statistical tests in assessing apparent differences between groups.

Remedy: Ameren Missouri should consider using a stratified-random sample in data collection for its next full demand-side potential study and in similar studies for the company's next regularly scheduled resource filing.

Page in Party's Report: 32

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(5)

Party: MDNR

Level: Concern #07

Comment: Calculation of "Maximum Achievable Potential". MDNR is concerned that the measure-level variables that the company used in its market potential study to construct one-year take rates and ultimately to estimate Maximum Achievable Potential were not based on primary data.

Remedy: In its next full demand-side potential study and in similar studies for the company's next regularly scheduled resource filing, the company should design survey instruments to collect a full set of primary data, so that there will be no need to estimate key data points, such as the "one-year payback take rate" measures that form the basis of their "Maximum Achievable Potential" scenario.

Page in Party's Report: 32

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: 050(6)(D)

Party: MDNR/GDS

Level: Deficiency #12

Comment: Ameren Missouri did not adequately consider potential distributed generation programs in the portfolios included in its alternative resource plans and analyzed in determining its preferred resource plan

Remedy: Within 60 days following the Commission approval of agreement on this remedy, GDS recommends that Ameren be required to provide a detailed scope of work and schedule for its ongoing evaluation of various DG options and development of strategies to connect with customers. Ameren Missouri notes in its 2011 IRP filing that it has dedicated a core group of specialists throughout the corporation to focus on multiple aspects of a distributed generation strategy. Analyzing the various technologies, identifying communication strategies, and determining necessary incentive dollars to move the market are all within the scope of this group.

Page in Party's Report: 44

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: MEEIA

Party: Staff

Level: Concern #E

Comment: Ameren Missouri's preferred resource plan does not meet the statutory goal of the Missouri Energy Efficiency Investment Act to achieve all cost-effective demand-side savings.

Remedy: Ameren Missouri should work with its stakeholder group to: 1) resolve Staff Deficiency 1 by evaluating the cost effectiveness of a revised Rider L program and the OPOWER program for its service territory and presenting the evaluation results to its DSM stakeholders for discussion prior to its annual update to be filed on April 1, 2012; 2) if revised Rider L and/or the OPOWER program are found to be cost effective, run revised Rider L and/or the OPOWER program through the integrated resource analysis for Plan R0 to determine the impact on PVRR; and 3) should a filing under the Commission's MEEIA rules or, if the MEEIA rules are stayed due to legal action, under Section 393.1075, RSMo Supp. 2010, not be made by April 1, 2012, the Company should quantitatively analyze and document the DSM cost recovery solution which is necessary for Ameren Missouri to select Plan R0 as its preferred resource plan under current environmental regulations and Meramec continuing to operate "as is," and to select contingency Plan R3 as its preferred resource plan under aggressive environmental regulations and Meramec not continuing to operate "as is" in its April 1, 2012 annual update filing.

Page in Party's Report: 43

Section: 4 CSR 240-22.050 Demand-Side Resource Analysis

Rule Citation: Stipulation EO-2007-0409

Party: OPC

Level: Deficiency #07

Comment: UE failed to comply with the Commission's order in Case No. EO-2007- 0409 wherein the Commission states that it "directs AmerenUE to more realistically evaluate its IDR [Industrial Demand Response] programs in its next filing."

Remedy: This deficiency should be remedied by UE including a realistic evaluation of the potential for IDR programs to further the objective of minimizing PVRR when the Company re-runs its IRP analysis and then selects a Preferred Resource Plan based on the results of the new analysis.

Page in Party's Report: 9

Section: 4 CSR 240-22.060 Integrated Resource Analysis

Section: 4 CSR 240-22.060 Integrated Resource Analysis

Rule Citation: 060(4)

Party: OPC

Level: Deficiency #06

Comment: UE's analysis of alternative resource plans and its selection of its Preferred Resource Plan contains several errors and flaws that lead to misleading and spurious results. These flaws are summarized in the OPC review document which contains the complete narrative description of OPC's deficiencies and remedies and they are also addressed in further detail in the OPC Technical Report.

Remedy: This deficiency should be remedied by UE re-running its analysis to select a Preferred Resource Plan. In applying its scorecard approach to the new runs UE should correct for all of the errors described above.

Page in Party's Report: 7

Section: 4 CSR 240-22.060 Integrated Resource Analysis

Rule Citation: 060 and 070(1) – (5)

Party: Staff

Level: Concern #B

Comment: Documentation of Ameren Missouri's Board of Directors' meetings during which the preferred resource plan was discussed and "unanimously adopted" does not indicate that all candidate resource plans analyzed pursuant to the requirements of 4 CSR 240-22.060 and the requirements of 4 CSR 240-22.070(1) – (5) were considered by Ameren Missouri's decision-makers and does not indicate that the lowest cost candidate resource plans (Plan R0 and Plan B3) were considered at all by Ameren Missouri's decision-makers.

Staff Report filed on June 23, 2011 incorrectly stated: "...the lowest cost candidate resource plans (Plan R0 and Plan R2) were considered at all by Ameren Missouri's decision-makers."

Remedy: When presenting candidate resource plans to Ameren Missouri decision-makers, Ameren Missouri should comply with rules 4 CSR 240-22.070(6) and 4 CSR 240-22.070(11)(F) in future IRP filings, including the annual update filings. (Note: for revised Chapter 22 rules effective June 30, 2011, the corresponding subsections are: 4 CSR 240-22.070(7) and 4 CSR 240-22.080(2)(A).)

Page in Party's Report: 41

Section: 4 CSR 240-22.060 Integrated Resource Analysis

Rule Citation: 070(10)(C)

Party: MDNR

Level: Concern #03

Comment: Use of terms that do not appear in the Chapter 22 rules: In selecting its preferred plan, the company relies on several terms that do not appear in Chapter 22. The company does not adequately explain the relationship of these terms to the selection process required in Chapter 22.

Remedy: The company and stakeholders should agree to standards for identification and analysis of uncertain factors. The clarity, stringency and consistency required by these standards should be equivalent to that established for critical uncertain factors in the Chapter 22 rules as modified by Commission-approved waivers. A statement of these standards and any implications for review or revisions of the company's contingency planning should be set forth in a supplemental filing prior to conclusion of a stipulation and agreement. This supplemental filing should also include a schedule for any revisions to the contingency planning that are found to be necessary as a result of this agreement.

Page in Party's Report: 17

Section: 4 CSR 240-22.060 Integrated Resource Analysis

Rule Citation: Stipulation ER-2010-0036

Party: MDNR

Level: Deficiency #07

Comment: Ameren Missouri did not analyze alternative resource plans containing the 2% savings scenario. Ameren Missouri did not analyze alternative resource plans containing the 2% savings scenario according to its agreements with MDNR.

Remedy: In a revised integrated analysis, Ameren Missouri should include one or more alternative resource plan based on the 2% savings scenario. The 2% savings scenario should "compete in the analysis on the same basis as other alternative resource plans and the selection of candidate plans should take place on a fair, equitable, transparent basis."

In reporting the results for the 2% scenario, the company should examine and document the conditions where this scenario would be cost-effective. This analysis should consider the supply side generation circumstances (i.e., plant retirements and fuel costs) that would make the 2% savings scenario cost-effective.

Page in Party's Report: 23

Section: 4 CSR 240-22.060 Integrated Resource Analysis

Rule Citation: Stipulation ER-2010-0036

Party: MDNR

Level: Deficiency #08

Comment: Ameren Missouri did not submit candidate resource plans containing the MAP DSM portfolio to sensitivity and risk analysis. Ameren Missouri did not submit candidate resource plans containing the Maximum Achievable Potential (MAP) DSM portfolio to sensitivity analysis. The company and MDNR agreed to use MAP portfolio in place of the 1% savings scenario described in Deficiency 7.

Remedy: In a revised compliance filing, Ameren Missouri should including the MAP plans in its analysis of its candidate resource plans. The revised filing should include candidate resource plans addressing the following conditions:

- A) 2% reductions in annual sales,
- B) the MAP portfolio, as described in Chapter 7 of the filing,
- C) Retirement of Meramec in 2015,
- D) Retirement of Meramec in 2022, and,
- E) Plans based on the upper bounds of coal O&M costs and non- carbon environmental costs, as discussed in MDNR Deficiency #11.

Page in Party's Report: 26

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 020(10)(C)

Party: MDNR

Level: Deficiency #09

Comment: Specification of outcomes of critical uncertain factors that would trigger a contingency plan. The company does not specify outcomes for the critical uncertain factors that would trigger a contingency plan. Furthermore, the filing does not demonstrate that the company attempted to determine these outcomes.

Remedy: In a supplemental filing, the company should specify of the ranges or combinations of outcomes for the critical uncertain factors that define the limits within which the preferred resource plan is judged to be appropriate and explain how these limits were determined.

Page in Party's Report: 28

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 020(10)(D)

Party: MDNR

Level: Deficiency #10

Comment: Specification of contingency options that would be triggered by extreme outcomes of the critical uncertain factors

Remedy: In a supplemental filing, the company should specify a set of contingency options that are judged to be appropriate responses to extreme outcomes of the critical uncertain factors and explain why these options are judged to be appropriate.

Page in Party's Report: 28

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(1)

Party: Staff

Level: Concern #C

Comment: The two sets of independent critical uncertain factors which are included as "joint" independent critical uncertain factors in Ameren Missouri's probability tree do not correctly reflect the values and probabilities for these two sets of the individual independent critical uncertain factors. Rule 4 CSR 240-22.070(1) variance.

Remedy: Ameren Missouri should investigate and utilize ways to more correctly represent two independent critical uncertain factors as joint critical uncertain factors in its annual update to be filed April 1, 2012

Page in Party's Report: 42

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(10)

Party: MDNR

Level: Deficiency #01

Comment: Identification and selection of decision factors: The process for identifying decision factors should (a) provide for clear and full specification of candidate decision factor; (b) compare in rigor to the selection process required for critical uncertain factors; and (c) provide a method for clearly distinguishing decision factors from uncertain factors.

Remedy: In a supplemental filing, the company should unambiguously set forth its proposed criteria for identifying factors as candidate decision factors rather than candidate uncertain factors and for determining which decision factors are to be treated as critical in the company's filing. In the supplemental filing, the company should describe the process it used to identify decision factors in its 2011 filing and present plans for incorporating the new selection criteria. In the supplemental filing, the company should state a working definition for each of the three decision factors that it identified in its 2011 filing that is sufficient to serve as the basis for a contingency analysis and other quantitative analysis.

Page in Party's Report: 9

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(10)(C)

Party: MDNR

Level: Deficiency #03

Comment: Specification of outcomes of the DSM cost recovery decision factor that would trigger a contingency plan: The company fails to specify the ranges or combinations of outcomes for the decision factors that define the limits within which the preferred resource plan

is judged to be appropriate.

Remedy: In a supplemental filing, the company should define “policy objective,” explain the relationship of “policy objectives” to “planning objectives” and either state that rule requirements that apply to planning objectives also apply to policy objectives or explain why they should not apply.

In a supplemental filing, the company should define “decision criteria,” explain the relationship of “decision criteria” to “decision factors,” “performance measures” and “selection criteria” and either state that rule requirements that apply to selection criteria also apply to decision criteria or explain why they should not apply.

Page in Party’s Report: 14

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(10)(D)

Party: MDNR

Level: Concern #01

Comment: Definition of “decision factors”: The definition of “decision factor” that the company states in the filing has evolved from earlier company statements and still is not sufficiently refined to apply to some real world planning situations.

Remedy: In a supplemental filing, the company should discuss the issues raised in this comment and further refine its definition of decision factors to account for these issues. Further efforts to refine the concept’s utility should continue in a stakeholder process.

Page in Party’s Report: 8

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(10)(D)

Party: MDNR

Level: Concern #02

Comment: Circumvention of Chapter 22 requirements for analyzing critical uncertain factors: Several of the deficiencies discussed in this and subsequent sections of MDNR’s comments suggest that the company has applied less rigorous standards to its identification and analysis of decision factors than would have been required under Chapter 22 if these factors had been identified and analyzed as critical uncertain factors. It appears that one effect of the company’s introduction of and reliance on decision factors is to circumvent the rigor that the rule requires when analyzing risk related to critical uncertain factors.

Remedy: The company and stakeholders should agree to standards for identification and analysis of uncertain factors. The clarity, stringency and consistency required by these standards should be equivalent to that established for critical uncertain factors in the Chapter 22 rules as modified by Commission-approved waivers. A statement of these standards and any implications for review or revisions of the company’s contingency planning should be set forth in a supplemental filing prior to conclusion of a stipulation and agreement. This supplemental filing should also include a schedule for any revisions to the contingency planning that are found to be necessary as a result of this agreement.

Page in Party's Report: 12

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(11)

Party: MDNR

Level: Deficiency #05

Comment: Documentation of decision process used to select the preferred resource plan: The company does not adequately describe the decision process through which senior management selected the preferred resource plan.

Remedy: In a supplemental filing, the company should provide revised documentation of the decision process that meets the documentation concerns identified in MDNR's comments on this deficiency. If the company cannot demonstrate through this supplemental filing that it complied with the rule provisions identified in MDNR's comments on this deficiency, it should propose a plan for remedying this deficiency through a revised filing.

Page in Party's Report: 20

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(2)(C)

Party: MDNR

Level: Concern #05

Comment: Monitoring future changes in environmental laws, regulations or standards on a continuous basis. The company's plan for monitoring changes in environmental regulations is limited to carbon policy and should be expanded to include the full range of relevant environmental issues.

Remedy: In a supplemental filing, the company should provide for continuous monitoring of the full range of possible changes in environmental policy that are identified in Chapter 8 as potentially significant. The assessment of the potential impact of possible environmental changes should not be limited to the Meramec plant.

Page in Party's Report: 31

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(3)

Party: Staff

Level: Concern #D

Comment: The high-case, base-case and low-case natural gas prices may be too high as a result of the recent development of shale gas plays in the United States. Rule 4 CSR 240-22.070(3)

Remedy: Discussion on the impact of lower gas prices than what was modeled be included in Ameren Missouri's annual update to be filed on April 1, 2012.

Page in Party's Report: 43

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(5)

Party: OPC

Level: Deficiency #05

Comment: UE failed to use an appropriate modeling technique to assess how future environmental scenarios for new EPA regulations affecting existing coal plants will influence the candidate resource plans.

Remedy: This deficiency should be remedied by UE re-running its analysis to select a Preferred Resource Plan. In the new runs the Company should include the two future environmental scenarios as two branches within the probability tree analysis

Page in Party's Report: 6

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 010(2)(C) and 070(6)(A)

Party: Staff

Level: Deficiency #03

Comment: Ameren Missouri has not quantitatively analyzed and documented the DSM cost recovery solution which is necessary for Ameren Missouri to select Plan R0 as its preferred resource plan under current environmental regulations and Meramec continuing to operate "as is," and to select contingency Plan R3 as its preferred resource plan under aggressive environmental regulations and Meramec not continuing to operate "as is" as required by rules 4 CSR 240-22.070(6)(A) and 4 CSR 240-22.010(2)(C).

Remedy: Ameren Missouri should work with its stakeholder group to: 1) resolve Staff Deficiency 1 by evaluating the cost effectiveness of a revised Rider L program and the OPOWER program for its customers, and present the evaluation results to its DSM stakeholders for discussion. Should one or both programs be found to be cost-effective, Ameren Missouri must evaluate the impact of one or both of the programs on the present value revenue requirements (PVRR) by including Rider L and/or OPOWER program in the integrated resource analysis for Plan R0, and present the results to its DSM stakeholders for discussion; 2) prepare a filing under the Commission's MEEIA rules or, if the MEEIA rules are stayed due to legal action, under Section 393.1075, RSMo Supp. 2010; and 3) should a filing under the Commission's MEEIA rules or, if the MEEIA rules are stayed due to legal action, under Section 393.1075, RSMo Supp. 2010, not be made by April 1, 2012, the Company should quantitatively analyze and document the DSM cost recovery solution which is necessary for Ameren Missouri to select Plan R0 as its preferred resource plan under current environmental regulations and Meramec continuing to operate "as is," and to select contingency Plan R3 as its preferred resource plan under aggressive environmental regulations and Meramec not continuing to operate "as is" in its April 1, 2012 annual update filing.

Page in Party's Report: 33

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(8)

Party: Staff

Level: Deficiency #04

Comment: Ameren Missouri did not correctly quantify the expected value of better information concerning at least the critical uncertain factors that affect the performance of its preferred resource plan, as measured by the present value of utility revenue requirements. Rule 4 CSR 240- 22.070(8).

Remedy: Ameren Missouri should correctly analyze the value of better information in its future Chapter 22 filings including its April 1, 2012 annual update.

Page in Party's Report: 39

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 070(6)

Party: Staff

Level: Concern #G

Comment: When analyzing the economic development policy objective for various candidate resource plans, Ameren Missouri did not analyze the indirect economic impacts of various candidate resource plans due to the lower risk adjusted PVRR for RAP DSM no supply-side resources Plan R0 under current environmental regulations (up to \$1.9 billion vs. Plan B2), and for RAP DSM and no supply-side resources Plan R3 under aggressive environmental regulations (up to \$2.5 billion vs. Plan H1).

Remedy: Ameren Missouri should analyze and document the indirect economic impacts of its candidate resource plans, if the Company chooses to use the economic development policy objective in risk analysis and strategy selection for future IRP filings.

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Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: '070(6)

Party: Staff

Level: Concern #H

Comment: Scores on Ameren Missouri's preferred resource plan scorecard are not logically consistent and may have serious flaws, because the comparison of one plan to another can only be done fairly when comparing plans designed for current environmental regulations with Meramec continuing to operate "as is" or when comparing plans designed for aggressive environmental regulations with Meramec not continuing to operate "as is."

Remedy: Ameren Missouri should take steps necessary to assure that when using scorecards to select its preferred resource plan for its next IRP filing the resulting scores are internally consistent.

Page in Party's Report: 46

Section: 4 CSR 240-22.070 Risk Analysis and Strategy Selection

Rule Citation: 22.070(1) – (2)

Party: NRDC

Level: Deficiency #04

Comment: Sensitivity Analysis; ROE as critical uncertain factor, 22.070(1) – (2),
EO-2007-0409 Stip. #34

Remedy: Ameren should rerun its modeling using realistic values for ROE.

Page in Party's Report: 19

Section: 4 CSR 240-22.080 Filing Schedule and Requirements

Section: 4 CSR 240-22.080 Filing Schedule and Requirements

Rule Citation: 080(6)

Party: OPC

Level: Deficiency #08

Comment: UE provided insufficient and inaccurate information to critical decision makers in selecting and approving the Preferred Resource Plan.

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