Exhibit No.:	
Issues:	Strategy Selection
Witness:	John A. Rogers
Sponsoring Party:	MO PSC Staff
Type of Exhibit:	Rebuttal Testimony
File No.:	EO-2011-0271
Date Testimony Prepared:	October 28, 2011

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

REBUTTAL TESTIMONY

OF

JOHN A. ROGERS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. EO-2011-0271

Jefferson City, Missouri
October 2011

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company's 2011 Utility Resource Filing Pursuant to 4 CSR 240 - Chapter 22	)))	File No. EO-2011-0271

AFFIDAVIT OF JOHN A. ROGERS

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

John A. Rogers, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 28 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

John A Rogers
John A. Rogers

Subscribed and sworn to before me this 27th day of October, 2011.

Susan L Sundermeyer
Notary Public

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086

Table of Contents

REBUTTAL TESTIMONY

OF

JOHN A. ROGERS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. EO-2011-0271

REBUTTAL TESTIMONY

OF

JOHN A. ROGERS

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. EO-2011-0271

Q. Please state your name and business address.

A. My name is John A. Rogers, and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. What is your present position at the Missouri Public Service Commission?

A. I am a Utility Regulatory Manager in the Energy Unit of the Regulatory Review Division.

Q. Are you the same John A. Rogers that contributed to Staff's Report on Electric Utility Resource Planning Compliance Filing ("Staff Report") filed on June 23, 2011 in this case?

A. Yes, I am.

Q. Would you please summarize the purpose of your rebuttal testimony?

A. I address certain responses of Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company") contained in Exhibit A *Response to Comments of Parties* ("Response") of the *Response of Ameren Missouri to Alleged Deficiencies and Concerns* which Ameren Missouri filed in this file on September 15, 2011. Since Ameren Missouri's Response document is 110 pages in length and contains the Company's responses to comments of all parties who filed comments, I will not attempt to address Staff's position on all comments and responses, but rather I will focus my rebuttal testimony primarily on

Ameren Missouri's response to the following areas that Staff identified as deficient or of concern in Ameren Missouri's February 23, 2011 filing:

1. Ameren Missouri's failure to comply with 4 CSR 240-22.010(2)(B)[1]: "*Use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan*;"
2. Ameren Missouri's failure to comply with 4 CSR 240-22.010(2)(C): "*Explicitly identify and, where possible, quantitatively analyze any other considerations which are critical to meeting the fundamental objective of the resource planning process, but which may constrain or limit the minimization of the present worth of expected utility costs*;"
3. Ameren Missouri's failure to comply with 4 CSR 240-22.010(2)(A): "*Consider and analyze demand-side efficiency and energy management measures on an equivalent basis with supply-side alternatives in the resource planning process*;" and
4. Ameren Missouri's failure to comply with 4 CSR 240-22.070(6) and (6)(A): "*The utility shall select a preferred resource plan from among the alternative plans that have been analyzed pursuant to the requirements of 4 CSR 240-22.060 and sections (1) – (5) of this rule. The preferred resource plan shall satisfy at least the following conditions: (A) In the judgment of the utility decision-makers, the preferred plan shall strike an appropriate balance between the various planning objectives specified in 4 CSR 240-22.010(2).*"

[1] Unless otherwise noted, all references to Chapter 22 Electric Utility Resource Planning rules are the rules that were in effect at the time that Ameren Missouri made its compliance filing.

While Staff considers the above issues to be the most significant issues, I will also address Ameren Missouri's response to other issues related to remaining Staff deficiencies and concerns Staff has identified in Ameren Missouri's February 23, 2011 filing that are not being addressed by other Staff witnesses.

Results of Staff's Review and Recommendation

Q. What are your recommendations to the Commission?

A. Staff recommends that the Commission find Ameren Missouri not in compliance with 4 CSR 240-22.010(2), 4 CSR 240-22.050(3), 4 CSR 240-22.070(6) and 4 CSR 240-22.070(6)(A) that were in effect when Ameren Missouri made its compliance filing on February 23, 2011. Staff recommends that the Commission not order Ameren Missouri to redo its analysis and to file a revised electric utility resource planning filing in this case on the condition that Ameren Missouri commits to:

1. Utilize minimization of present value of revenue requirement ("PVRR") as its primary selection criterion when selecting its preferred resource plan and as **the** objective of the electric utility resource planning process. Staff contends that when the Commission in 4 CSR 240-22.010 stated that the electric utility could "constrain or limit" the minimization of PVRR, it did not mean giving **the** objective of the resource planning process anything other than a very high weight during the preferred resource plan selection process. Staff's analysis of Ameren Missouri's filing indicates that properly utilizing PVRR in this manner and using the analysis already conducted by Ameren Missouri will result in Ameren Missouri selecting plan R0 as its preferred resource plan and preferred resource acquisition strategy;

2. Notify the Commission[2] that its preferred resource plan and resource acquisition strategy have changed to contingency resource Plan R0[3] conditioned only upon the Company receiving Commission approval of its realistic achievable portfolio ("RAP") of demand-side management ("DSM") programs and for approval of a fair demand-side programs investment mechanism ("DSIM") under the Missouri Energy Efficiency Investment Act ("MEEIA") rules;[4]
3. File for approval of its RAP DSM programs and for approval of a DSIM under MEEIA; and
4. Commit to address the remaining deficiencies and concerns identified by the various parties during the annual update stakeholder workshops and filings in April 2012 and in April 2013 and during the Company's next triennial compliance filing on April 1, 2014 under the recently revised 4 CSR 240-22.

Q. What are the results of Staff's review of Ameren Missouri's Response to parties' alleged deficiencies and concerns?

A. While Ameren Missouri's Response addresses - to varying degrees - all of the alleged deficiencies and concerns of all parties, Ameren Missouri does not agree to any of the

[2] Notification to the Commission shall comply with currently effective 4 CSR 240-22.080(12).
[3] Ameren Missouri's notification should also: 1) identify Plan B1 as its contingency resource plan should the Company not receive approval of its RAP DSM programs and approval of a fair DSIM under the MEEIA rules and should aggressive environmental regulations not be enacted; 2) identify Plan C3 as its contingency resource plan should the Company not receive approval of its RAP DSM programs and approval of a fair DSIM under the MEEIA rules and should aggressive environmental regulations be enacted by the federal government; and 3) identify Plan R3 as its contingency resource plan should the Company receive approval of its RAP DSM programs and approval of a fair DSIM under the MEEIA rules and should aggressive environmental regulations be enacted by the federal government.
[4] 4 CSR 240-3.163, 4 CSR 240-3.164, 4 CSR 240-20.093 and 4 CSR 240-20.094, which all have an effective date of May 30, 2011.

remedies proposed by parties for alleged deficiencies and concerns in this case.[5] Staff has reviewed Ameren Missouri's Response; however, Ameren Missouri has not provided information causing Staff to alter its initial conclusion that Ameren Missouri failed to comply with the provisions identified in Staff's identified deficiencies in its Staff Report. In addition, most of Staff's concerns still remain after Ameren Missouri's Response.

Chapter 22 Policy Objectives and Preferred Resource Plan Selection Process

Q. What is the fundamental objective for Electric Utility Resource Planning contained in 4 CSR 240-22.010?

A. 4 CSR 240-22.010(2) states:

> The fundamental objective of the resource planning process at electric utilities shall be to provide the public with energy services that are safe, reliable and efficient, at just and reasonable rates, in a manner that serves the public interest.

Q. Has Ameren Missouri complied with the fundamental objective for Electric Utility Resource Planning contained in 4 CSR 240-22.010?

A. No.

Q. Why not?

A. The preferred resource plan chosen by Ameren Missouri will not provide energy services that are efficient at just and reasonable rates in a manner that best serves the public interest. Ameren Missouri has made – and continues to make - 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 and to best serve the public interest.

[5] Staff, Office of Public Counsel, Missouri Department of Natural Resources all provided proposed remedies to the alleged deficiencies and concerns in their reports filed June 23, 2011 regarding Ameren Missouri's Electric Utility Resource Plan filing on February 23, 2011.

Under Ameren Missouri's current cost recovery methods, the preferred resource plan chosen by Ameren Missouri results in Ameren Corporation shareholders receiving a higher return which serves the interest of the shareholders, but it also results in higher revenue requirements which do not serve the interest of the Ameren Missouri ratepayers or the general economy of the State of Missouri.

Q. Would Plan R0 serve the interest of both Ameren Corporation's shareholders and Ameren Missouri's ratepayers?

A. It would if the Commission approves Ameren Missouri's RAP DSM programs and a fair DSIM under MEEIA. But that cannot be addressed until Ameren Missouri files for approval of the RAP DSM programs and for approval of a DSIM under MEEIA.

Q. Why should Ameren Missouri seek approval of its RAP DSM programs and approval of a DSIM under MEEIA?

A. Ameren Missouri's expected future revenue requirements for its RAP DSM alternative resource plans are expected to be several billions of dollars less than the expected future revenue requirements for any other comparable alternative resource plan which is not in the interest of Ameren Corporation's shareholders. The RAP DSM plans R0 and R3 result in favorable future revenue requirements for customers regardless of whether or not aggressive environmental regulations are enacted in the future. Plan R0 assumes current environmental regulations and Plan R3 assumes aggressive environmental regulations[6]. Additional analysis by the Company is not expected to change this result. However, a fair DSIM could balance the interest of the shareholders and the ratepayers by giving the

[6] See Staff Report pages 1 through 3.

shareholders more earnings through incentive payments and possibly some lost revenues while lowering the average customer bill.

Further, utilizing either RAP DSM plan would be consistent with the MEEIA statutory goal to achieve all cost-effective demand-side savings. MEEIA is the law of the State and the Commission's MEEIA rules have been effective since May 30, 2011. Staff contends that the public interest is best served by Ameren Missouri designating Plan R0 as its preferred resource plan and by Ameren Missouri filing for approval of its RAP DSM programs and for approval of a DSIM under MEEIA.

Q. Could Ameren Missouri designate Plan R0 as its preferred resource plan at this time?

A. Yes. There is no reason why the Company could not notify the Commission now that its preferred resource plan is Plan R0 conditioned only upon the Company receiving approval of its RAP DSM programs and approval of a DSIM under the MEEIA rules.

Implementation of the RAP DSM portfolio and a fair Commission-approved DSIM together form the cornerstone for the Ameren Missouri resource acquisition strategy which will best serve the public interest, i.e., the interest of both customers of Ameren Missouri and shareholders of Ameren Corporation.

Q. Does 4 CSR 240-22-010(2) state any requirements to meet the fundamental objective for Electric Utility Resource Planning?

A. Yes, it does. As stated earlier, 4 CSR 240-22.010(2) establishes that the fundamental objective of the electric utility resource planning process *shall* be "to provide the public with energy services that are safe, reliable and efficient, at just and reasonable rates, in a manner that serves the public interest." 4 CSR 240-22.010(2) also establishes that when meeting the fundamental objective of electric utility resource planning, the utility *shall* satisfy three (3) other planning objectives:

> (A) Consider and analyze demand-side efficiency and energy management measures on an equivalent basis with supply-side alternatives in the resource planning process;
> (B) Use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan; and
> (C) Explicitly identify and, where possible, quantitatively analyze any other considerations which are critical to meeting the fundamental objective of the resource planning process, but which may constrain or limit the minimization of the present worth of expected utility costs. …

Q. How are the planning objectives in 4 CSR 240-22.010 used in the electric utility resource planning process?

A. Chapter 22 requires the utility's decision-makers comply with the objectives in 4 CSR 240-22.010(2) when selecting the utility's preferred resource plan as described in 4 CSR 240-22.070(6):

> (6) The utility shall select a preferred resource plan from among the alternative plans that have been analyzed pursuant to the requirements of 4 CSR 240-22.060 and sections (1)--(5) of this rule. The preferred resource plan shall satisfy at least the following conditions:
> (A) In the judgment of utility decision-makers, the preferred plan shall strike an appropriate balance between the various planning objectives specified in 4 CSR 240-22.010(2);

Q. Has Ameren Missouri complied with all requirements of 4 CSR 240-22.010 and 4 CSR 240-22.070(6) in its Electric Utility Resource Planning compliance filing of February 23, 2011?

A. No, for the reasons included in Staff Deficiencies 1, 2, 3 and 4 of the Staff Report[7].

Q. Does Ameren Missouri's Response filed on September 15, 2011, show that Ameren Missouri complied with all requirements of 4 CSR 240-22.010 and 4 CSR 240-11.070(6)?

A. No, for the reasons I go on to explain in this rebuttal testimony.

Non-compliance with 4 CSR 240-22.010(2)(B)

Q. What is required by 4 CSR 240-22.010(2)(B)?

A. 4 CSR 240-22.010(2)(B) requires the utility to "use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan." This means that minimizing risk adjusted PVRR, i.e., minimizing expected average customer bills over the planning period, is **necessary** to meet **the** objective of the electric utility resource planning process. 4 CSR 240-22.010(C) explains that minimization of PVRR should be the only criterion used to select the preferred resource plan unless other considerations[8] would cause the utility decision-makers to "constrain or limit" the use of minimization of PVRR when selecting its preferred resource plan.

Q. Does your answer to the previous question differ from your position in the Staff Report?

[7] Staff contends that Ameren Missouri did not: 1) perform cost-effectiveness screening of all known demand-side measures (specifically, its Rider L program and the well-established OPOWER program), 2) use minimization of present worth of long-run utility costs as the primary selection criterion when choosing its preferred resource plan, 3) quantitatively analyze and document the DSM cost recovery solution which is necessary for the Company to choose Plan R0 as its preferred resource plan, and 4) correctly quantify the expected value of better information concerning the critical uncertain factors that affect the performance of its preferred resource plan.

[8] Other considerations are allowed under 4 CSR 240-22.010(2)(C).

A. Yes. In the Staff Report, Staff took the position that "When weighting selection criterion for the selection of a utility's adopted preferred resource plan the utility must assign at least a majority of the weighting in the preferred resource plan selection process to the present worth of long-run utility costs as measured through PVRR."[9] After further reflection and discussion, I realized that Ameren Missouri's approach to selection of its preferred resource plan represents a drastic deviation from past practices in Missouri. It is now Staff's position that the fundamental objective of the electric utility resource planning rule can only be achieved if minimization of PVRR is the primary selection criterion when selecting the preferred resource plan and is **the** objective of the electric utility resource planning process.

Q. Except for Ameren Missouri's filing in this case, have all other Missouri electric utility resource planning compliance filings used minimization of PVRR as the primary selection criterion when selecting the preferred resource plan?

A. There has been only one other compliance filing since the Chapter 22 rules went into effect in 1993 that did not use the minimization of PVRR as the primary selection criterion when selecting the preferred resource plan. On July 5, 1994, Kansas City Power & Light Company ("KCPL") filed under Chapter 22 in Case No. EO-94-360. Instead of minimization of PVRR, KCPL used average system rates as it criterion for selecting a preferred resource plan. On page 2 of the Commission's *Order Concerning Compliance* (included as Schedule JAR-1), the Commission stated:

> The filings in this docket demonstrate that KCPL used minimization of average system rates (ASR) as its sole selection criterion in connection with DSM planning. The rules states in no uncertain terms that the utility shall use minimization of the present worth of long run utility

[9] Staff Report, page 33.

> costs as the primary selection criterion in choosing the preferred resource plan. Thus, the Commission finds that KCPLAN 94 is deficient in demonstrating full compliance with the requirements of the rules and presenting resource acquisition strategy in a manner that meets the requirements of 4 CSR 240-22.010(A)-(C) of the rules.

Q. Please comment on Ameren Missouri's statement that the plain and ordinary meaning of the term "primary" is "of first importance."[10]

A. The Company contends that as long as PVRR is given the greatest weight of all the policy objectives identified by the Company's decision-makers during the preferred resource plan selection process, the Company has complied with 4 CSR 240-22.010(2)(B). By taking this position, the Company contends that it can choose any number of policy objectives and it will be in compliance as long as it assigns PVRR the greatest weight. Thus, for example, if the Company's decision-makers were to choose eleven (11) policy objectives and gave PVRR a weight of 10 percent and all other policy objectives a weight of 9 percent, the Company contends it would be in compliance with the 4 CSR 240-22.010(2)(B).

It is important to note that 4 CSR 240-22.0210 includes only three objectives which a utility must satisfy when meeting the fundamental objective of providing the public with energy services that are safe, reliable and efficient, at just and reasonable rates, in a manner that serves the public interest. These three objectives are:

> (A) Consider and analyze demand-side efficiency and energy management measures on an equivalent basis with supply-side alternatives in the resource planning process;
> (B) Use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan; and
> (C) Explicitly identify and, where possible, quantitatively analyze any other considerations which are critical to meeting the fundamental objective of the resource planning process, but which may constrain or limit the minimization of the present worth of expected utility costs.

[10] Ameren Missouri Response page 94.

Given this and the Commission's *Order Concerning Compliance* in EO-94-360, Staff's contends that the fundamental objective of the electric utility resource planning rule can only be achieved if minimization of PVRR is the primary selection criterion when selecting the preferred resource plan and is **the** objective of the electric utility resource planning process. Further, minimization of PVRR can only be tempered during the preferred plan selection process by other considerations which are critical, but which may constrain or limit the minimization of PVRR. Staff contends that "may constrain or limit" the minimization of PVRR cannot mean giving **the** objective of the resource planning process anything other than a very high weight during the preferred resource plan selection process. Thus, Staff's definition of the meaning of primary is drastically different from the Company's definition of "primary" as "of first importance." Staff contends that the history of all prior 4 CSR 240-22 compliance filings in which Missouri electric utilities used minimization of PVRR when selecting preferred resource plans, with the exception of KCPL's filing in EO-94-360, the Commission's *Order Concerning Compliance* in EO-94-360, and common sense when choosing between Staff's definition and the Company's definition overwhelmingly favors Staff's definition and position on this issue.

Q. In addition to your disagreement with Ameren Missouri's definition of "primary" as "of first importance," are there any other parts of the Company's response to Staff Deficiency 2 that you disagree with?

A. Yes. I do not agree with the statement: "While PVRR is a measure of total cost, rate increases also measure the change in total cost over the planning horizon.[11]" Rates are derived by dividing cost by weather-normalized annual sales. When cost-effective

[11] Ameren Missouri Response page 95.

demand-side resources are implemented, costs (PVRR) will decrease over time – relative to costs absent the cost-effective demand-side resources - while rates will increase due to an even larger relative decrease in weather-normalized annual sales. Such a relationship is inherent in the definition of cost-effective demand-side resources.

For example, consider two plans. Plan 1 has a PVRR of $100 and weather normalized annual sales of 1,000 kWh. Its average rate is $0.10/kWh. Plan 2 has a PVRR of $80 and weather normalized sales is only 700 kWh, its average rate is $0.11/kWh. Plan 2 has a lower PVRR but it has a higher average rate.

Q. What would be the consequences of using rate increases as a measure of total cost over the planning horizon?

A. Using rate increases favors plans with few or no cost-effective energy efficiency programs, since energy efficiency programs decrease usage more than they decrease utility costs (PVRR).

Q. Please explain how Ameren Missouri has not complied with the requirements of 4 CSR 240-22.010(2)(B).

A. 4 CSR 240-22.010(2)(B) requires that minimization of PVRR be the primary selection criterion when choosing a preferred resource plan. Staff has presented its argument why "use minimization of long-run utility costs as the primary selection criterion" means that PVRR be given all of the weight or at least a very large portion of the weight during the utility's preferred resource plan selection process. By assigning a weight of only 25 percent to minimization of PVRR during its preferred resource plan selection process, Ameren Missouri chose to assign a 75 percent weight to factors other than minimization of PVRR and therefore chose to not comply with 4 CSR 240-22.010(2)(B).

<u>Non-compliance with 4 CSR 240-22.010(2)(C)</u>

Q. What are the requirements of 4 CSR 240-22.010(2)(C)?

A. 4 CSR 240-22.010(2)(C) states:

> (C) Explicitly identify and, where possible, quantitatively analyze any other considerations which are critical to meeting the fundamental objective of the resource planning process, but which may constrain or limit the minimization of the present worth of expected utility costs. The utility shall document the process and rationale used by decision makers to assess the tradeoffs and determine the appropriate balance between minimization of expected utility costs and these other considerations in selecting the preferred resource plan and developing contingency options. These considerations shall include, but are not necessarily limited to, mitigation of--
>
> 1. Risks associated with critical uncertain factors that will affect the actual costs associated with alternative resource plans;
> 2. Risks associated with new or more stringent environmental laws or regulations that may be imposed at some point within the planning horizon; and
> 3. Rate increases associated with alternative resource plans.

To comply with 4 CSR 240-22.010(2)(C) a utility may constrain or limit its use of only minimization of PVRR when selecting its preferred resource plan, if the utility identifies and quantitatively analyzes "other considerations" which may constrain or limit the utility's ability to minimize PVRR. 4 CSR 240-22.010(2)(C) states that other consideration shall include at a minimum risks associated with critical uncertain factors and with more stringent environmental laws or regulation and rate increases, and it allows any other consideration which may constrain or limit the utility's ability to minimize PVRR.

Q. Which of the deficiencies and concerns identified by Staff and what parts of the Ameren Missouri Response relate to Ameren Missouri's compliance with 4 CSR 240-22.010(2)(C)?

A. Staff identified Deficiency 3 and Staff Concerns E and F.

Q. What is Staff identified Deficiency 3?

A. Staff identified Deficiency 3 states:

> 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 4 CSR 240-22.070(6) and 4 CSR 240-22.010(2)(C).

Staff identified in its Deficiency 3, Ameren Missouri's failure to identify and quantify the DSM cost recovery solution necessary to choose Plan R0 or Plan R3 as its preferred resource plan as one "other consideration" which constrains minimization of PVRR[12]. Plan R0 and Plan R3 clearly have the lowest expected PVRR of all comparable alternative resource plans[13] and the "other consideration" which Ameren Missouri has identified which is constraining the Company's willingness to select Plan R0 as its preferred resource plan is the Company's current regulatory treatment for DSM cost recovery. The DSM cost recovery solution should be an "other consideration" under 4 CSR 240-22.010(2)(C). The Company contends that DSM cost recovery solution is a decision factor as defined by the Company.

Q. Does Ameren Missouri's Response dispel Staff identified Deficiency 3?

A. No. In its Response, Ameren Missouri continues to defend its use of DSM cost recovery as a decision factor and its analysis of the impact of the RAP DSM portfolio (Plan R0) on shareholder return on equity ("ROE")[14] as the reason the Company is unwilling to select Plan R0 as its preferred resource plan. However, Ameren Missouri does state the following with respect to the DSM cost recovery decision factor:

---

[12] See Staff Deficiency 3 on pages 33 through 39 and Appendix C of Staff Report.

[13] Alternative resource plans which are comparable to Plan R0 assume current environmental regulations and Meramec continuing to operate "as is" and include Plans B1, B2, B3 and B4. Alternative resource plans which are comparable to Plan R3 assume aggressive environmental regulations and Meramec either retired, converted to natural gas or emissions controlled and include Plans R1, R2, C1, C2, C3, H1, H2 and H3.

[14] See Section 10.1.1 Demand-Side Resource Financing in Ameren Missouri's February 23, 2011 filing.

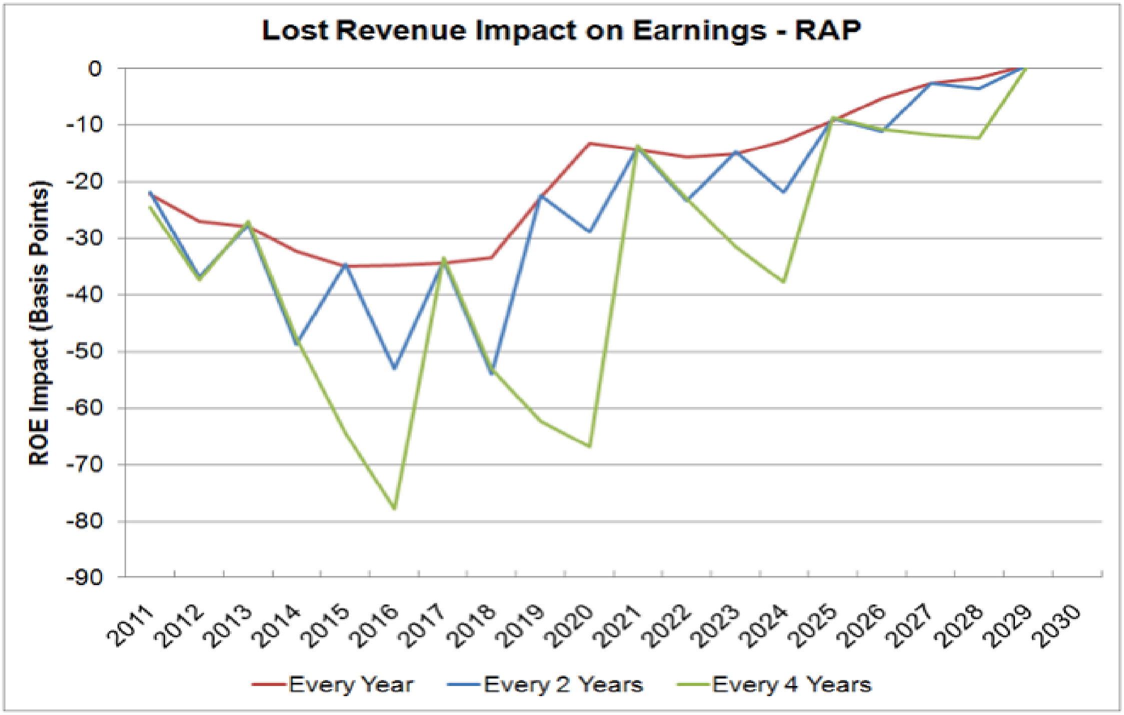
> If financial barriers to the aggressive pursuit of DSM are removed then RAP DSM becomes a viable option. If Ameren Missouri were to pursue the RAP DSM portfolio no supply-side resources would be needed in the planning horizon, even with the retirement of Meramec, assuming customer response to program incentives is consistent with our estimates.[15]

ROE is one of seven performance metrics defining the Financial/Regulatory policy objective on the Company's Preferred Plan Selection Scorecard and was given a weight less than minimization of PVRR.[16] However, it is driving Ameren Missouri's preferred resource plan choice.

Staff provided in its Staff Report an analysis of how the Company's Preferred Plan Selection Scorecard results are impacted should the PVRR policy objective be given a 50 percent weight,[17] and the results of Staff's analysis clearly show Plan R0 under current environmental regulations and Plan R3 under aggressive environmental regulations as the alternative resource plans with highest weighted scores on the scorecard. As stated earlier, and not contested by the Company, implementation of Plan R0 or Plan R3 is expected to save ratepayers several billions of dollars over the planning horizon compared to implementation of any other comparable alternative resource plan.

Figure 1.10 of the Company's February 23, 2011 filing provides a valuable insight of the Company's perspective of the impact of lost revenue due to the RAP DSM programs under current regulatory treatment upon ROE as follows:

[15] See Section 10.3.2 Contingency Planning in Ameren Missouri's February 23, 2011 filing.
[16] Figure 10.5 in Ameren Missouri's February 23, 2011 filing.
[17] See Staff Report pages 31 through 33 and Addendum B.

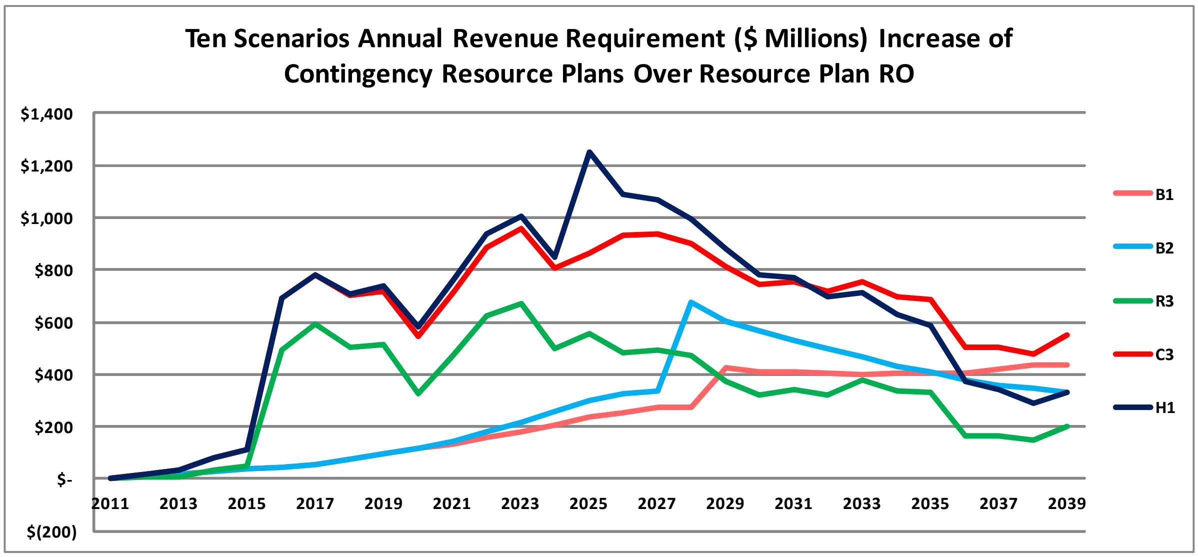


Staff agrees that the shareholder perspective, i.e., ROE, is very important. However, the ratepayer perspective is equally important, and the ratepayer perspective is reflected in Addendum C of the Staff Report. To illustrate this point, Schedule JAR-2 demonstrates through the Company's own analysis the expected reduction in PVRR for Plan R0 vs. Plan B1 and Plan B2 under current environmental regulations and for Plan R3 vs. Plan C3 and Plan H1 under aggressive environmental regulations.

The following chart from Addendum C of the Staff Report illustrates the difference between the expected annual revenue requirement of the RAP DSM Plan R0 and Plans B1, B2, R3, C3 and H1, respectively[18]. Plan B1 is the Company's preferred resource plan. Because all of the lines in this graph are greater than zero, the graph shows that RAP DSM Plan R0 is expected to have a lower revenue requirement every year compared to these five

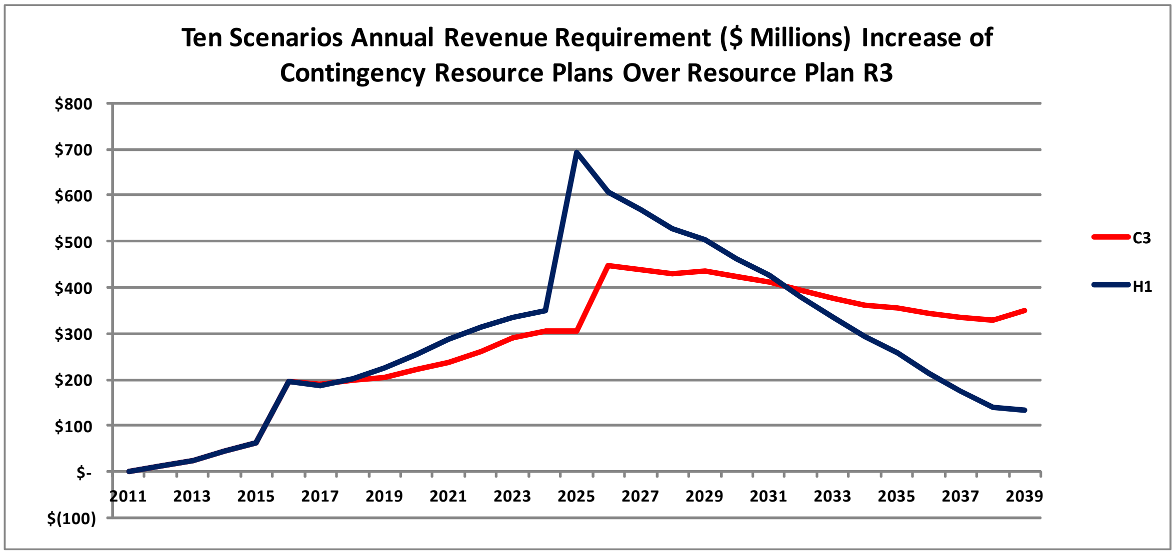
[18] See Staff Report Addendum C pages 1 of 8 and 5 of 8.

plans[19] including Plan B1. Plan R0 expected revenue requirement is always lower than that of Plan B1, and Plan R0 has an expected revenue requirement which is approximately $400 million lower than that of Plan B1 for each of the last eleven (11) years of the planning horizon. The expected PVRR of Plan B1 is $1.6 billion greater than that of Plan R0.



Similarly, under aggressive environmental regulations, the following chart from Addendum C of the Staff Report illustrates that the RAP DSM Plan R3 is expected to have a lower revenue requirement every year compared to the Company's preferred resource Plan C3 and Plan H1 and that Plan R3 has a revenue requirement which is approximately $400 million lower than that of Plan C3 for each of the last fourteen (14) years of the planning horizon. The expected PVRR of Plan C3 is $2.3 billion greater than that of Plan R3.

[19] Plans B1, B2 and R0 are all comparable and assume that Meramec continues to operate "as is" under current environmental regulations. Plans C3, H1 and R3 are all comparable and assume that Meramec is retired under aggressive environmental regulations.



Ameren Missouri makes the following statement in its Response:

> As the MEEIA rules adopted by the Commission apply to both program approval and the establishment of rate treatment (through a DSIM), a specification in the IRP of the cost recovery desired by the company would have no practical effect, just as specification of the need for CWIP or other alternative ratemaking to support large plant investment would have no effect. Only in a general rate case or in a proceeding that provides for changes in cost recovery outside a general rate case could a change be realized.[20]

Staff contends that there is not currently a need for a large plant investment by Ameren Missouri, and the large plant investment options – especially the nuclear alternative resource plans (Plan B2 and Plan H1) – are billions of dollars more costly to ratepayers than are the RAP DSM alternative resource plans (Plan R0 and Plan R3). The Commission's MEEIA rules, which define how the electric utilities can get approval of their demand-side programs along with parameters for cost recovery, lost-revenue recovery and incentive payments, became effective on May 30, 2011.

[20] Ameren Missouri Response page 16.

Legislation already exists that allows the electric utilities to receive non-traditional ratemaking treatment and the Commission's rules regarding MEEIA are in effect, and proper consideration of PVRR results in selection of plan R0; thus it is Staff's position that Ameren Missouri should notify the Commission that it has selected Plan R0 as its preferred resource plan and pursue Commission approval of its RAP DSM programs and approval of a DSIM under MEEIA.

Q. Does Ameren Missouri's Response dispel Staff Concern E?

A. No. Staff Concern E states: "Ameren Missouri's preferred resource plan does not meet the statutory goal of the Missouri Energy Efficiency Act to achieve all cost-effective demand-side savings." Ameren Missouri's Response to Staff Concern E is on pages 16 through 17 of Response. In its Response, Ameren Missouri contends that its preferred resource plan is compliant with the goals in MEEIA and should Ameren Missouri make a MEEIA filing, no other action by the Company would be necessary to address this issue.

Staff points out that the Company's preferred resource plan includes a Low Risk DSM portfolio which is expected to achieve energy savings far less than the expected energy savings from the RAP DSM portfolio in the Company's recently completed DSM Market Potential Study[21]. Staff does not consider a Low Risk DSM portfolio to demonstrate progress toward an expectation of all cost-effective demand-side savings as determined under the Commission's recently effective guidelines for such a determination in 4 CSR 240-22.094(2). Staff recommends the Commission find that the Low Risk DSM portfolio is not consistent with the goals in MEEIA.

Q. Does Ameren Missouri's Response dispel Staff Concern F?

[21] See Figure 1.3 Annual Savings in Ameren Missouri's February 23, 2011 filing.

A. No. Staff's Concern F states: "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." Ameren Missouri's Response to Staff Concern F is on page 17 of Response. While Staff agrees that Ameren Missouri "has made significant effort in seeking improved rate treatment for DSM investments," Ameren Missouri has not yet requested approval of DSM programs which are expected to achieve a goal of all cost-effective demand-side saving and has not yet requested approval of a DSIM which will provide the financial incentives for the Company to implement programs which are expected to achieve a goal of all cost-effective demand-side saving. Ameren Missouri can and should make a MEEIA filing as soon as possible which can be expected to achieve a goal of all cost-effective demand-side savings and is expected to be cost-effective for both customers and shareholders.

Non-compliance with 4 CSR 240-22.010(2)(A)

Q. What does 4 CSR 240-22.010(2)(A) require?

A. 4 CSR 240-22.010(2)(A) states: "Consider and analyze demand-side efficiency and energy management measures on an equivalent basis with supply-side alternatives in the resource planning process."

Q. Which of Staff's identified deficiencies and concerns relate to Ameren Missouri's compliance with 4 CSR 240-22.010(2)(A)?

A. Staff Deficiency 1 states: "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. 4 CSR 240-22.050(3)"

Q. What is Staff's reply to the Company's response to Staff alleging Deficiency 1?

A. Staff's reply is contained in the rebuttal testimony of Staff witness Randy S. Gross.

Q. How has Ameren Missouri not complied with the requirements of 4 CSR 240-22.010(2)(A)?

A. Because Ameren Missouri has chosen to not identify and to analyze a well-established customer education program such as OPOWER, the Company is not in compliance with 4 CSR 240-22.050(3) and is also - by logical deduction - not in compliance with 4 CSR 240-22.010(2)(A). Staff acknowledges the Company's statement: "Ameren is actively engaged in work to answer these questions in time to consider OPOWER as a measure option in its next IRP filing."[22] Staff encourages Ameren to evaluate the cost-effectiveness of the OPOWER program for inclusion in its first MEEIA filing and to make its MEEIA filing as soon as possible.

Non-compliance with 4 CSR 240-22.070(6) and (6)(A)

Q. What does 4 CSR 240-22.070(6) and (6)(A) require?

A. 4 CSR 240-22.070(6) and (6)(A) states:

> (6) The utility shall select a preferred resource plan from among the alternative plans that have been analyzed pursuant to the requirements of 4 CSR 240-22.060 and sections (1)--(5) of this rule. The preferred resource plan shall satisfy at least the following conditions:
> (A) In the judgment of utility decision-makers, the preferred plan shall strike an appropriate balance between the various planning objectives specified in 4 CSR 240-22.010(2);

[22] Ameren Missouri Response page 23.

This rule requires that utility decision-makers *shall* achieve the fundamental objective of the resource planning process to provide the public with energy services that are safe, reliable and efficient, at just and reasonable rates, in a manner that serves the public interest. Further, in achieving the fundamental objective of the resource planning process, the utility *shall* evaluate demand-side resources and supply-side resources on an equivalent basis; the utility *shall* use minimization of PVRR as the primary selection criterion in choosing the preferred resource plan; and the utility *shall* explicitly identify and, where possible, quantitatively analyze any "other considerations" which are critical to meeting the fundamental objective of the resource planning process, but which may constrain or limit the minimization of PVRR.

Q. What process does Ameren Missouri contend it used to satisfy the minimum requirements of 4 CSR 240-22.070(6) and (6)(A)?

A. Ameren Missouri has created a list of "policy objectives" for use in its preferred plan selection scorecard[23]. Further, Ameren Missouri specifies three "decision factors" identified as DSM cost recovery solutions, plant financing solutions and environmental regulations (aggressive environmental regulations and higher gas prices and/or carbon cap and trade regulations). The Company contends that "Decision Factors are those conditions under which a decision must be made based on adequate and complete information at the time of a decision."[24] Finally, the Company summarizes its decision-making process in its Decision Roadmap.[25]

---

[23] Figure 10.5 Preferred Plan Selection Scorecard in Ameren Missouri's February 23, 2011 filing includes the following policy objectives: environmental diversity, financial/regulatory, customer satisfaction, economic development and cost (PVRR).
[24] See Section 10.1 in Ameren Missouri's February 23, 2011 filing.
[25] See Figure 10.6 Decision Roadmap in Ameren Missouri's February 23, 2011 filing.

Q. What is Staff's view of the Company's process to comply 4 CSR 240-22.070(6) and (6)(A)

A. Staff agrees that a selection scorecard can be a useful tool for decision-makers to use. However, as Staff describes in its identified Deficiency 2, the Company has not used minimization of PVRR as the primary selection criterion when selecting its preferred resource plan and in its Concern H that the scores on the selection scorecard are not logically consistent and may be flawed. Staff takes the following positions regarding the Company's decision factors:

1. A plant financing solution requires passage of new legislation in Missouri and the impact on PVRR cannot be known until such new legislation is known. Plant financing is a decision factor as defined by the Company. However, the Company has presented no quantitative analysis of PVRR under any assumed plant financing solution(s) to justify its identification of Plan B2 (Meramec continues, 30% of 1,600 MW nuclear in 2028 and Low Risk DSM) as its contingency resource plan under existing environmental regulation or its identification of Plan H1 (Meramec retired, combined cycle gas plant in 2016-2020, 30% of 1,600 MW nuclear plant in 2022-2026, and Low Risk DSM) as its contingency resource plan under aggressive environmental regulations.
2. Aggressive environmental regulations may occur in the future as a result of new federal regulations. Aggressive environmental regulation is a decision factor as defined by the Company, but it is also a critical uncertain factor. The Company has quantitatively analyzed the impact on expected PVRR for

aggressive environmental regulation during its integrated resource analysis and risk analysis[26].

3. DSM cost recovery solution is <u>not</u> a decision factor, since MEEIA has been law since August 28, 2009 and the Commission's MEEIA rules have an effective date of May 30, 2011. DSM cost recovery solution is "another consideration" under 4 CSR 240-22.010(2)(C). The Company can quantitatively analyze the DSM cost recovery solution through a filing under the MEEIA rules.

Proper consideration of minimization of PVRR and "other considerations" results in selection of Plan R0 as the preferred resource plan; thus, it is Staff's position that Ameren Missouri should notify the Commission that it has selected Plan R0 as its preferred resource plan and pursue Commission approval of RAP DSM programs and approval of a DSIM under MEEIA.

Further, the Company has performed the integrated resource analysis and risk analysis in this case necessary to: 1) identify Plan B1 as its contingency resource plan should the Company not receive approval of its RAP DSM programs and approval of a fair DSIM under the MEEIA rules and should aggressive environmental regulations not be enacted; 2) identify Plan C3 as its contingency resource plan should the Company not receive approval of its RAP DSM programs and approval of a fair DSIM under the MEEIA rules and should aggressive environmental regulations be enacted by the federal government; and 3) identify Plan R3 as its contingency resource plan should the Company receive approval of its RAP DSM

[26] See Addendum C pages 2, 3, 4, 7 and 8 of Staff Report.

programs and approval of a fair DSIM under the MEEIA rules and should aggressive environmental regulations be enacted by the federal government.

Other Issues Related to Staff's Identified Deficiencies and Concerns.

Q. Did Ameren Missouri respond to Staff's identified Deficiency 4?

A. Yes. Ameren Missouri's response to Staff's identified Deficiency 4 is on pages 104 and 105 of Response. Staff does not agree with the Company's defense of its excluding Plan R0 and Plan B3 from the expected value of better information ("EVBI") analysis.

The Company contends that "Knowing that the company "could" spend hundreds of millions of dollars to find an acceptable cost recovery framework for DSM is not *useful*, since there is *clearly an opportunity here that does not require expenditures anywhere close to the level of magnitude of the potential savings*." [Emphasis added] Staff contends that its analysis of EVBI is *useful* and that the *opportunity here* is a MEEIA filing, because the cost of applying for approval of RAP DSM programs and for approval of a DSIM is expected to be a small fraction of the savings (reduced PVRR) resulting from the Company's selection and implementation of Plan R0 as its preferred resource plan. In Addendum D of Staff Report, Staff presents the analysis that is *useful* for decision making in this case: EVBI for Plan R0 (the resource plan that Staff contends should be the preferred resource plan) and for Plans B1, C3 and R3 (the resource plans which Staff contends should be the contingency resource plans).

Q. Did Ameren Missouri respond to Staff's identified Concern A[27]?

[27] Staff Concern A: Ameren Missouri did not consistently use the value for avoided capacity cost in various calculations in its IRP. Rule 4 CSR 240-22.050(2).

A. Yes. The Company's response is acceptable to Staff and dissipates Staff's concern.

Q. Did Ameren Missouri respond to Staff's identified Concern B[28]?

A. Yes. Although Staff does not agree entirely with the Company's response, the Company's response is acceptable to Staff and dissipates Staff's concern.

Q. Did Ameren Missouri respond to Staff's identified Concern C[29]?

A. Yes. Although Staff does not agree entirely with the Company's response, the Company's response is acceptable to Staff and dissipates Staff's concern.

Q. Did Ameren Missouri respond to Staff's identified Concern D[30]?

A. Yes. The Company's response is acceptable to Staff and dissipates Staff's concern.

Q. Did Ameren Missouri respond to Staff identified Concern G[31]?

A. The Company's response includes the following: "While it would not be invalid at all to include consideration of indirect impacts, it would not necessarily add anything to the assessment of alternative plans and would add a layer of complexity to the analysis that would be difficult to justify. . . . There is no end to how elaborate such an

---

[28] Staff Concern B: 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 R2) were considered at all by Ameren Missouri's decision-makers.

[29] Staff Concern C: 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 individual independent critical uncertain factors. Rule 4 CSR 240-22.070(1).

[30] Staff Concern D: 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)

[31] Staff Concern G: 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).

analysis could become, so the value of information gained must be a limiting factor." Staff disagrees with the Company's response and considers it important to analyze indirect economic impacts, because the economic development policy objective is given a 10 percent weight in the Company's preferred plan selection scorecard which makes a complete analysis of direct and indirect economic impacts very important. Staff contends it is the Company's responsibility to provide a complete and thorough analysis of economic development, if the Company is going to use economic development as a policy objective during its decision process.

Q. Does that conclude your rebuttal testimony?

A. Yes, it does.

STATE OF MISSOURI
PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held at its office in Jefferson City on the 6th day of October, 1995.

In the matter of Kansas City Power & Light Company's resource plan filed pursuant to 4 CSR 240-22.	)))	**Case No. EO-94-360**

ORDER CONCERNING COMPLIANCE

On July 5, 1994, Kansas City Power & Light Company (KCPL) filed KCPLAN 94 (Integrated Resource Plan). This filing was required under the Commission's Electric Utility Resource Planning rules (4 CSR 240-22.010 et seq.).

On December 19, 1994, all parties to this proceeding, except the City of Kansas City, Missouri (City), filed a joint filing. Although not a signatory to the joint filing, the City has expressed no objection to the joint filing and the joint filing itself states that the City has indicated that it does not object to the joint filing. The joint filing contains alleged deficiencies and recommendations. An alleged deficiency occurs where a party contends that KCPLAN 94 is not in compliance with the Commission's Electric Utility Resource Planning rules (hereinafter, "rules"). A recommendation occurs where a party is suggesting action that, in that party's opinion, would improve KCPL's resource planning process. A recommendation, however, does not mean that the party making the recommendation believes KCPLAN 94 is out of compliance with the rules with respect to the recommendation.

The joint filing makes no specific request of the Commission. The Commission will address the joint filing sua sponte. The Commission finds that the agreements between the parties at pages 5 through 31 of the joint filing are reasonably calculated to move KCPL towards compliance with the rules. Furthermore, the Commission finds that the recommendations contained at pages 39 through

47 of the joint filing are reasonably calculated to move KCPL towards complete compliance with these rules.

The Commission agrees with the Office of the Public Counsel (OPC) with respect to deficiency 58 on page 32 of the joint filing, which states that "KCPL should have used minimization of the present worth of long-run utility costs as the primary selection criteria (sic) for choosing its preferred plan." 4 CSR 240-22.010(2)(B).

The filings in this docket demonstrate that KCPL used minimization of average system rates (ASR) as its sole selection criterion in connection with DSM planning. The rules states in no uncertain terms that the utility shall use minimization of the present worth of long run utility costs as the primary selection criterion in choosing the preferred resource plan. Thus, the Commission finds that KCPLAN 94 is deficient in demonstrating full compliance with the requirements of the rules and presenting resource acquisition strategy in a manner that meets the requirements of 4 CSR 240-22.010(2)(A)-(C) of the rules.

The Commission finds that KCPL should modify its process for the selection of a preferred resource plan in connection with KCPLAN 97. In particular, KCPL must strictly follow 4 CSR 240-22.010(2)(B) and 22.010(2)(C). In sum, KCPL's filing should respect the distinction between a "primary selection criterion" (22.010(2)(B)) and "considerations which are critical to meeting the fundamental objective of the resource planning process, but which may constrain or limit minimization of the present worth of expected utility costs" (22.010(2)(C)) in presenting its view of the interplay between them.

The Commission finds that the deficiency in KCPLAN 94 is KCPL's failure to explain how the selection criterion used by KCPL legitimately results from the process identified in 4 CSR 240-22.010. The Commission generally agrees with the characterization of this deficiency in the joint filing at pages 5 and 6 (deficiency 1). The Commission finds that KCPL's submission of a separate volume in KCPLAN 97 as described in the response to deficiency 1 appears to be a reasonable step towards compliance with the Electric Utility Resource Planning rules.

OPC and Trigen-Kansas City Energy Corporation (Trigen) listed numerous alleged deficiencies other than number 58 (discussed above). The Commission will not make specific findings on these other alleged deficiencies at this time. The Commission is not persuaded that a hearing in this docket would be beneficial at this time. Rather, the Commission would encourage KCPL, OPC and Trigen to continue using their best efforts to resolve these other disputes in connection with KCPLAN 97.

IT IS THEREFORE ORDERED:

1. That the record will reflect that KCPLAN 94 does not demonstrate compliance with the requirements of 4 CSR 240-22.010(2)(A)-(C), et seq.

2. That this order shall become effective on the 17th day of October, 1995.

BY THE COMMISSION

David L Rauch

David L. Rauch
Executive Secretary

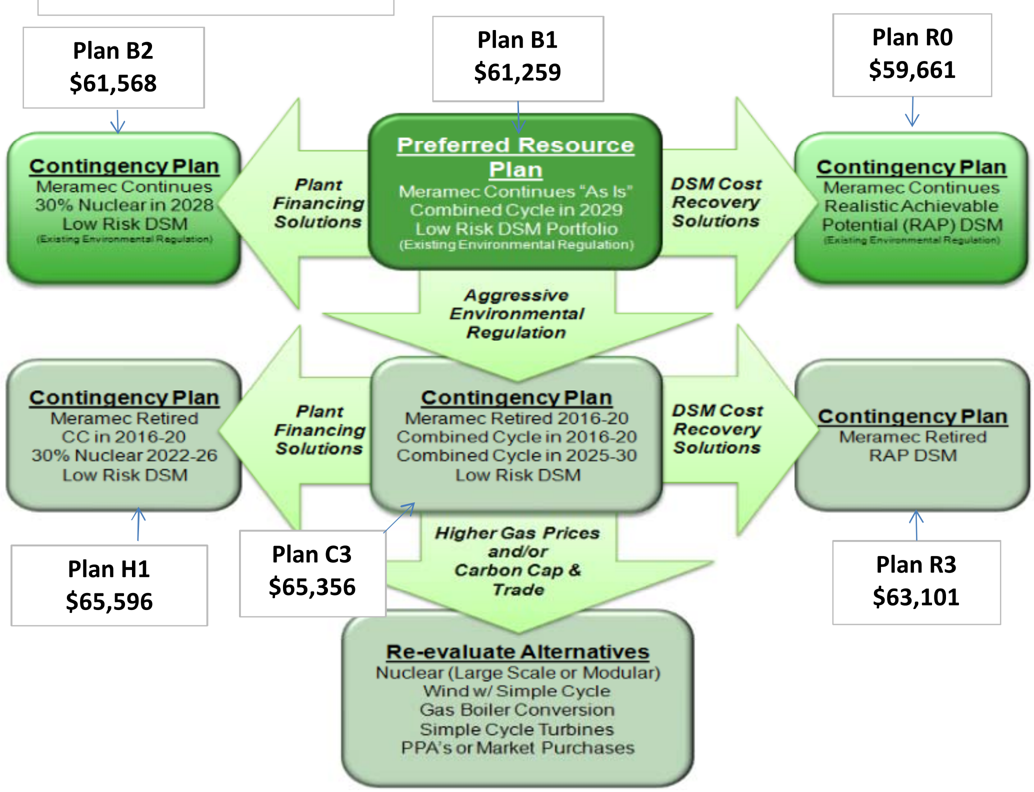
(S E A L)

Mueller, Chm., Kincheloe and
Crumpton, CC., concur.
McClure, C., dissents.
Drainer, C., not participating.

Candidate Resource Plans and Expected Risk Adjusted NPVRR Through 2039
Ten Scenarios

Candidate Plan	PVRR $ Millions	vs. R0 $ Millions	vs. R3 $ Millions	Supply-Side Resources Primary	Supply-Side Resources Secondary	Supply-Side Resources Renewables	DSM	Meramec	Noranda
R0	$ 59,661	$ -	$ (3,440)	None	None	Prop C	RAP	"As iIs"	Cont.
B3	$ 61,161	$ 1,500	$ (1,940)	SC	None	Prop C	Low Risk	"As Is"	Cont.
B1	$ 61,259	$ 1,598	$ (1,842)	CC	None	Prop C	Low Risk	"As Is"	Cont.
B4	$ 61,403	$ 1,742	$ (1,698)	Wind/SC	None	Prop C	Low Risk	"As Is"	Cont.
B2	$ 61,568	$ 1,907	$ (1,533)	Nuke 30%	None	Prop C	Low Risk	"As Is"	Cont.
R1	$ 62,867	$ 3,206	$ (234)	None	None	Prop C	RAP	Controlled	Cont.
R3	$ 63,101	$ 3,440	$ -	None	None	Prop C	RAP	Retired 2016	Cont.
R2	$ 63,358	$ 3,697	$ 257	none	None	Prop C	RAP	Convert Gas	Cont.
C1	$ 64,403	$ 4,742	$ 1,302	CC	None	Prop C	Low Risk	Controlled	Cont.
C2	$ 64,875	$ 5,214	$ 1,774	CC	None	Prop C	Low Risk	Convert Gas	Cont.
H2	$ 65,198	$ 5,537	$ 2,097	CC	SC	Prop C	Low Risk	Retired 2016	Cont.
C3	$ 65,356	$ 5,695	$ 2,255	CC	CC	Prop C	Low Risk	Retired 2016	Cont.
H3	$ 65,420	$ 5,759	$ 2,319	CC	Wind/SC	Prop C	Low Risk	Retired 2016	Cont.
H1	$ 65,596	$ 5,935	$ 2,495	CC	Nuke 30%	Prop C	Low Risk	Retired 2016	Cont.

Candidate Plan
PVRR $ Millions
Ten Scenarios



Ten Scenarios Average Annual Revenue Requirement ($ Millions) Increase of Contingency Resource Plans Over Resource Plan RO

	2011 - 2020	2021 - 2030	2031 - 2039
B1	$ 48	$ 256	$ 414
B2	$ 48	$ 361	$ 417
R3	$ 253	$ 497	$ 265
C3	$ 369	$ 855	$ 627
H1	$ 374	$ 962	$ 526

Ten Scenarios Average Annual Revenue Requirement ($ Millions) Increase of Contingency Resource Plans Over Resource Plan R3

	2011 - 2020	2021 - 2030	2031 - 2039
C3	$ 115	$ 358	$ 362
H1	$ 121	$ 465	$ 262