BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light	)	
Greater Missouri Operation Company's Filing	)	Case No. EE-2009-0237
Pursuant to 4 CSR 240 - Chapter 22	)	

MISSOURI DEPARTMENT OF NATURAL RESOURCES ENERGY CENTER COMMENTS ON KANSAS CITY POWER & LIGHT COMPANY GREATER MISSOURI OPERATION'S INTEGRATED RESOURCE PLAN FILING DATED August 5, 2009

PUBLIC VERSION

** ** denotes highly confidential information

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Intervenor, Missouri Department of Natural Resources (MDNR), submits the attached comments on Kansas City Power & Light-Greater Missouri Operations (KCP&L-GMO's) Integrated Resource Planning (IRP) compliance filing dated August 5, 2009. KCP&L-GMO's filing was submitted pursuant to requirements of 4 CSR 240-22. MDNR submits these comments pursuant to 4 CSR 240-22.080(6) and (8), which provide that:

> …within one hundred twenty (120) days after an electric utility's compliance filing… any intervener may file a report or comments based on a limited review that identify any deficiencies in the electric utility's compliance with the provisions of this chapter, any deficiencies in the methodologies or analyses required to be performed by this chapter, and any other deficiencies which …the intervener believes would cause the utility's resource acquisition strategy to fail to meet the requirements identified in 4 CSR 240-22.010(2)(A)–(C)… [The parties] shall work with the electric utility…to reach, within forty-five (45) days of the date that the report or comments were submitted, a joint agreement on a plan to remedy the identified deficiencies.

In the Department's view, the process established by 4 CSR 240-22.080(6) - (8) should provide an opportunity for limited review of the utility's resource planning process and resource acquisition strategy.

MDNR prepared these comments with the assistance of two consulting firms, Synapse Energy Economics, Inc. and Optimal Energy. Synapse focused on issues related to utility-scale renewable supply-side resources, and Optimal focused on issues related to demand-side resources. The reports of the consultants are attached hereto as Exhibits A and B and by this reference incorporated herein.

The compliance filing submitted by KCP&L-GMO on August 5 consists of eight volumes and numerous appendices. The MDNR's comments focus primarily on topics

covered in Volumes 1, 4, 5, 6, 7 and 8 of the compliance filing. Volume 1 is the executive summary, and Volumes 4-7 correspond to supply-side, demand-side, integration and risk analysis requirements contained in 4 CSR 240-22.040 through 4 CSR 240-22.070. Volume 8 includes provisions for “nontraditional accounting procedures."

In addition to these compliance filing documents, MDNR reviewed the following sources of information in preparing these comments:

- Non-Unanimous Stipulation and Agreement filed in November, 2007 pursuant to Aquila Integrated Resource Planning Case No. EO-2007-0298;
- KCP&L-GMO waiver request filed in Case No. EE-2009-0237, approved by the Commission on March 11, 2009;
- KCP&L-GMO's draft supplemental filing Volume 1-S, which included three appendices, submitted on November 2, 2009; and
- KCP&L-GMO's response to data requests (DRs) served by MDNR.

MDNR staff also participated in post-filing stakeholder information meetings that KCP&L-GMO presented on September 18, September 21 and October 1-2, 2009. Subject matter experts from the two consulting firms that are assisting MDNR participated in portions of these meetings. The MDNR wishes to emphasize that while its comments have been informed by these meetings as well as participation in previous KCP&L-GMO collaborative processes, they are based on the contents of the documents actually filed in Case No. EE-2009-0237 and the Company's responses to data requests.

In these comments, the citations to sources are provided as follows:

- The main volumes that were included in KCP&L-GMO's August 5, 2009 compliance filing are cited by volume number, for example, "Volume 1, page 1."
- The appendices that were included in KCP&L-GMO's August 5, 2009compliance filing are cited by the appendix number designated by KCP&L-GMO, for example, "Appendix 1A, page 1."
- Responses to data requests (DRs) are cited based on the party serving the request and a number based on the order in which the party submitted requests, for example, "MDNR DR #1, page 1."
- The reports prepared by the MDNR's consultants are cited as the Optimal Report and Synapse Report. These reports are organized around discussion of identified deficiencies, and sections of the reports are referenced by deficiency number, for example, Optimal Deficiency #1 or Optimal Remedy #1.
- Citations of other sources are based on commonly-accepted practice.

Overview of Key Deficiencies and Concerns

MDNR appreciates the spirit of cooperation that KCP&L-GMO has displayed in collaborative processes and the utility's willingness to increase the level of demand-side programs available to customers in its GMO service territory beyond the level that was made available by Aquila. MDNR also appreciates the utility's willingness to add significant renewable resources to its supply-side resource portfolio and to consider retirement of two small units at one of its existing fossil-fired facilities.

However, MDNR has identified two key deficiencies which are sufficiently significant to require revision of the filing.

- Demand-Side - A key goal for the demand side analysis in this filing should be to identify the energy and peak reductions that can be achieved through cost-effective DSM and to develop plans for meeting the company's policy goal of "achiev[ing] ever higher amounts of DSM energy and peak reductions"[1] and the state's policy goal of achieving "all cost-effective demand side savings."[2] At a minimum the company's demand-side analysis should treat demand-side resources on an equivalent basis with supply-side resources. However, CP&L-GMO's filing fails this equivalency requirement on several indices, including but not limited to scalability, investment horizon, analytic rigor and consistency, and risk assessment. As a result, the DSM design is constrained to arbitrarily low levels of

[1] Executive Summary, p.9
[2] SB 376

performance with the ultimate result that the integrated analysis fails to use minimization of long-run costs as its primary selection criteria.

- Supply-Side - A key goal for the supply side analysis in this filing should be thorough consideration of the future disposition of KCP&L-GMO's aging coal-fired facilities at Sibley and Lake Road. As aging coal-fired generation facilities based on older (cyclone) technology, these are burdened with high NOx, SO_2 and carbon emission rates. To keep these facilities operational through 2023, KCP&L-GMO will have to sink significant capital investments into plant refurbishments and retrofits - to meet non-carbon-related environmental requirements[3] - a combined ** in 2009 dollars (present value) for the overall stream of expenditures. Their retention will also deepen KCP&L-GMO's reliance on carbon-intensive generation in the face of likely carbon regulation.

  The following table showing the company's estimate of the investments that would be required to keep the Sibley and Lake facilities in operation is excerpted from the Synapse report. The Synapse report fully documents the sources for the table.

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  Analysis of alternatives for future disposition of these facilities - retaining them or replacing them with other resources - should not be postponed because, as the company's implementation schedule indicates, commitment to investments in

[3] KCP&L-GMO proposes to implement emission controls to bring these facilities to BACT standards (Volume 4, pp. 83-84 and Volume 7A, p. 5).

these facilities begins prior to the next scheduled filing. Only through integrated analysis can the company and the Commission properly assess whether an alternative set of resources might meet load requirements at less cost and less risk.

However, the current filing's assessment of resources that might replace these facilities is not sufficient to support that analysis. Specifically, KCP&L-GMO's demand-side analysis underestimates the potential of DSM programs to reduce utility load requirements, and its analysis of wind resources may underestimate the potential to acquire wind resources in earlier years of the planning horizon.

As is further discussed in MDNR #12, below, the cumulative effect of these deficiencies is to fatally limit KCP&L-GMO's ability to assess resource decisions that must occur prior to its next filing. MDNR is proposing that KCP&L-GMO revise its integrated analysis to include revisions to the DSM and wind analysis and to include alternative resource plans that test the full range of options for disposition of the Sibley and Lake Road facilities. These plans should be analyzed in the same manner as all of the other alternative resource plans.

Nontraditional Accounting Mechanism-DSM

The MDNR is also providing comments on the company's proposal for a nontraditional accounting mechanism, advanced in Volume 8 and revised in a November 16 response to MDNR DR#45.

The MDNR doubts that this case is the appropriate forum for resolution of these proposals. In its response to MDNR DR #45, KCP&L-GMO appears to have withdrawn

the proposal that it advanced in the August 5, 2009 filing. As explained in MDNR #19, below, the revised November 16 proposal was not presented in accordance with the requirements of 4 CSR 240-22.080(2). The MDNR is also aware that some parties have questioned whether the incentive mechanism proposed by KCP&L-GMO fits the rule's intended definition of "nontraditional accounting practices."

Nevertheless, the Department continues to support the introduction of properly designed regulatory mechanisms to remove existing disincentives to utility acquisition of demand-side resources and to support reasonable incentives for utilities to pursue these resources, relative to the level of investments and risk. As discussed in MDNR #22, the MDNR does not believe KCP&L-GMO's proposed performance incentives are appropriate relative to its level of proposed DSM investments and risk.

The Department is encouraged by the discussion of such mechanisms that is currently taking place in Missouri. In order to advance this discussion, the Department is, in MDNR #21 and MDNR #22, offering comments on substantive issues raised by the Company's November 16, 2009 proposal.

MDNR #1, 4 CSR 240-22.010(2) - analysis of demand-side and supply-side resources on an equivalent basis and minimization of NPVRR.

Rule 4 CSR 22.010(2) provides in pertinent part that:

> (2) 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. This objective requires that the utility shall—

(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…

Deficiency:

The filing fails to treat demand-side management resources on an equivalent basis and fails to use minimization of long-run costs as the primary selection criteria.

Discussion:

This issue is fully discussed in the Optimal report, pp. 4-17.

The Department continues to support the policy of setting targets for load reductions as an indicator of the adequacy of DSM efforts. In paragraph 33 in the Stipulation and Agreement in Case No. EO-2007-0298, KCPL-GMO agreed to "employ its best efforts to use alternate approaches to the integration of DSM programs and will use its best efforts to include a second, more aggressive set of DSM programs." Presumably in response to this Agreement, the Company used a "hypothetical" resource plan in this filing that included a 1% annual DSM savings portfolio. However, KCP&L-GMO did not subject this "hypothetical" alternative resource plan to essential aspects of integration analysis including identification of critical uncertain factors or selection of the preferred resource plan. In light of this, in this case, the MDNR proposes another approach to integration of more significant levels of DSM.

One indicator of the depth of a portfolio of demand side resources is the aggregate benefit/cost ratio (BCR) under the Total Resource Cost (TRC) test. The demand side

resources bundled in the Company's preferred resource plan has a very high aggregate BCR of ****. Such a high BCR suggests that the programs in the preferred resource plan are only skimming the surface of opportunities for efficiency savings in the Company's service territory. The DSM analysis in the current filing has failed to identify substantial additional opportunities for savings that could be achieved through (a) increases in program implementation budgets to generate higher program activity levels; and/or (b) the inclusion of additional cost-effective measures with lower measure-level BCRs.

Proposed remedy:

The Company should revise its demand-side analysis and its estimates of DSM potential to remedy the deficiencies identified in the Optimal report, incorporate the revised analysis into a revised set of alternative resource plans and submit these alternative resource plans to a revised risk analysis, integrated analysis and strategy selection. Specifically:

> KCP&L-GMO's revised demand-side analysis should meet the following requirements:
>
> A. At least one alternative resource plan shall include demand-side resources with an aggregate BCR for efficiency programs no greater than 2.0, excluding demand response programs. This BCR target shall be achieved by progressively adding new energy efficiency measures with lower BCRs, or by more aggressive implementation of measures that are already included, but not by discarding energy efficiency measures with

higher BCRs unless doing so would increase the portfolio's overall cost effectiveness;

B. At least one additional alternative resource plan shall include demand-side resources with an aggregate BCR for efficiency programs between 2.0 and 3.0, excluding demand response programs;

C. The alternative resource plans shall project investments in DSM over a period equivalent to that for projected investments in supply-side;

D. The alternative resource plans shall provide full accounting for the impact of increased DSM on the need for supply; and

E. KCP&L-GMO shall clearly define and document a consistent set of assumptions, inputs, and outputs for the DSM analysis, including BCRs for individual programs and aggregate BCRs for DSM program portfolios and annual load impacts of DSM program portfolios.

MDNR #2, 4 CSR 240-22.040(1) - identification of supply-side options

4 CSR 240-22.040(1) provides as follows:

> The analysis of Supply-Side resources shall begin with the identification of a variety of potential Supply-Side resource options which the utility can reasonably expect to develop and implement solely through its own resources or for which it will be a major participant.

4 CSR 240-22.060(3), Development of Alternative Resource Plans, provides in pertinent part as follows:

> The utility shall use appropriate combinations of candidate Demand-Side and supply-side resources to develop a set of alternative resource plans… .

4 CSR 240-22.060(6)(A), provides in pertinent part as follows:

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

Deficiency:

The Company fails to identify and analyze retirement of Sibley 3 and/or Lake Road 4-6 as supply-side options.

Discussion:

It is clear from the rule language cited above that the identification of supply-side options required by 4 CSR 240-22.040(1) should include identification of potential supply-side retirements and that these should be analyzed on the same basis as supply-side acquisitions. KCP&L-GMO actually does identify retirements of Sibley 1 and 2 as supply-side options, but does not address Sibley 3 or Lake Road 4-6.

All alternative resource plans apparently take it as given that refurbishments and environmental upgrades will be implemented at Sibley 3 and Lake Road 4-6. As discussed in the Synapse report, pp. 3-5, the proposed refurbishments and upgrades would be very costly. The filing does not indicate that any consideration was given to the alternative of retiring these facilities.

The subparagraphs of 4 CSR 240-22.040(1) require the utility to collect "generic cost and performance information" for each potential resource option that has been

identified. Because KCP&L-GMO fails to identify retirement of its Sibley and Lake Road facilities as a potential supply side option, the Company's filing also fails to document some of the data related to these facilities. For example, Rule 4 CSR 240-22.040(1)(K)1 requires the utility to assess the environmental impact of supply-side options. Volume 4, Table 12 (p. 25) lists generic emission rates for a variety of supply side options, but lists no emission rates for coal-fired cyclone generation technology. The Company undoubtedly has actual emissions data for these facilities; however, these are not documented in Volume 4, and this increases the difficulty of independent assessment by the parties.

Proposed remedy:

The Company should revise its supply-side analysis to consider plant retirements at Sibley 3 and Lake Road 4-6 in its supply-side screening, should incorporate newly identified candidate resources into alternative resource plans and submit the revised set of alternative resource plans to integrated analysis and strategy selection.

MDNR #3, 4 CSR 240-22.040(1)(E) - analysis of wind costs

4 CSR 240.040(1)(E) provides in pertinent part:

> The utility shall collect generic cost and performance information for each of these potential resource options which shall include at least the following attributes where applicable:…(E) Capital cost per kilowatt;

Deficiency:

KCP&L-GMO's analysis relies on capital costs for the wind resource options that were out of date at the time the IRP filing was made, makes no accommodation for the

effect of fundamental economic supply/demand forces on the prices for a wind resource, and fails to account for predicted declines in real cost trends for wind resources.

Discussion:

Although KCP&L-GMO's preferred resource plan includes very substantial acquisition of wind resources, the utility may nonetheless overestimate the cost of wind resources and underestimate its ability to acquire wind resources in earlier years of the planning horizon. The Synapse report, pp 6-10, provides a full discussion of the substantive issues in KCP&L-GMO's analysis.

Proposed remedy:

When revising its IRP analysis, KCP&L-GMO should re-analyze the supply options using up-to-date wind resource prices and should take into account opportunities offered by the current period of market-depressed prices.

MDNR #4, 4 CSR 240-22.040(1)E - analysis of solar costs

4 CSR 240-040(1)(E) provides in pertinent part:

> The utility shall collect generic cost and performance information for each of these potential resource options which shall include at least the following attributes where applicable:…(E) Capital cost per kilowatt;

4 CSR 240-22.050(1) provides in pertinent part as follows:

> Identification of End-use Measures. The analysis of Demand-Side resources shall begin with the development of a menu of energy efficiency and energy management measures that provide broad coverage of …(D) Renewable energy sources and energy technologies that substitute for electricity at the point of use.

Deficiency:

KCP&L-GMO's analysis relies on inappropriately high costs for residential solar photovoltaic (PV) resource options.

Discussion:

The Company chose to analyze residential solar PV as a supply-side resource under the requirements of 4 CSR 240-22.040. The resource was screened out on the basis of its poor cost ranking in the preliminary screening pursuant to 4 CSR 240-22.040(2)(C). Synapse identifies two issues in the cost screening. The capital costs used for the analysis do not reflect the downward price trends that have been occurring in the industry throughout 2009 and fail to account for projected continuing downward trends in PV costs. Furthermore, the prescreening analysis disregarded the effect of the federal investment tax credit (ITC). These issues are fully discussed in Synapse Deficiency #3.

The supply-side screening did pass some utility-scale solar options to integration, and all twenty-four alternative resource plans developed for the filing include utility-scale solar as a resource. The Company states that the solar resource included in the alternative resource plans is based on "estimates of the installed solar capacity required to fulfill the requirements of Missouri's Proposition C (Prop C) Renewable Energy Standard." (Executive Summary, Vol.1 p. 8).

The Company has stated that it is reassessing customer-based solar PV in view of the solar resource requirements of Missouri's Renewable Energy Standard. For example,

the Company has engaged a consultant to update a 2008 benefit / cost study of various small-scale renewable technologies, including 2.0 kW and 3.2 kW PV systems.

It is not clear why the Company chose to screen residential solar PV as a supply-side resource rather than a demand-side resource. Screening residential PV as a demand-side resource could provide greater flexibility in identifying and analyzing cost-effective approaches to acquisition of this resource. For example, a program for long-term financing might provide the resource at lower levelized-cost-of-energy (LCOE). Such program options cannot readily be analyzed under the pre-screening requirements of 4 CSR 240-22.040(2).

Proposed remedy:

As proposed in the Synapse report, p. 9, in its next IRP filing, KCP&L-GMO should more carefully consider the current cost trends in the industry, explicitly account for the Investment Tax Credit (ITC) at the screening stage, explain in detail the source and reasoning behind all Operation and Maintenance (O&M) costs, and prior to screening out options from the integrated analysis stage, recognize the ability of the resource to provide more than just an energy (MWH) benefit.

Rather than eliminate mature residential and other customer-based solar PV resources during the pre-screening under 4 CSR 240-22.040(2), the Company should analyze these resources as demand-side resource and/or allow them to pass to the integrated analysis stage and should consider long-term financing approaches that might obtain the resource at much lower LCOE.

MDNR #5, 4 CSR 240-22.040(2)(B)1-2 - future NOx & SO2 compliance requirements

4 CSR 240-22.040(2)(B)1 provides as follows:

> The utility shall identify a list of environmental pollutants for which, in the judgment of utility decision makers, additional laws or regulations may be imposed at some point within the planning horizon which would result in compliance costs that could have a significant impact on utility rates. 2. For each pollutant identified pursuant to paragraph (2)(B)1., the utility shall specify at least two (2) levels of mitigation that are more stringent than existing requirements which are judged to have a nonzero probability of being imposed at some point within the planning horizon.

In its approval of the company's Waiver Request 9, the Commission ordered that:

> KCP&L-GMO will provide at least two levels of mitigation where this approach is applicable. For probable environmental requirements that do not lend themselves to varying levels of mitigation, KCP&L will explain how the requirements and costs were determined and include an explanation of why two levels of mitigation are not applicable.

Deficiencies:

MDNR #5A: KCP&L-GMO failed to identify and analyze the potential impact of two levels of NOx and SO_2 mitigation requirements, as required by 4 CSR 240-22.040(2)(B)2.

MDNR #5B: KCP&L-GMO is inconsistent in its assessment of potential NOx and SO_2 regulatory regimes that would affect the cost of compliance.

Discussion:

MDNR #5A: In the MDNR's view, the requirements of 4 CSR 240-22.040(2)(B)2 should apply to NOx and SO_2 regulation for the following reasons:

- KCP&L-GMO provides the list required by 4 CSR 240-22.040(2)(B)1 in Appendix 4B. The Company's list includes NOx and SO_2 regulation.

- KCP&L-GMO requested a waiver of the requirements of 4 CSR 240-22.040(2)(B)2 for specific environmental regulations for which it demonstrates that the requirement is not applicable. In Volume 4, p. 32 the Company identifies the environmental regulations for which it is claims this waiver. NOx and SO_2 mitigation regulations are not included in the list.

MDNR #5B: Examples of the filing's inconsistencies in the analysis of the potential environmental impact of NOx requirements are as follows:

- During the September 21, 2009 stakeholder information meeting, MDNR asked KCP&L-GMO to explain the forecast in Volume 4, Table 46. KCP&L-GMO staff stated that the forecast assumes future NOx regulation will be based on facility-level emission requirements rather than a cap-and-trade approach. KCP&L-GMO also stated that this is its rationale for proposing investments to bring the Sibley and Lake Road plants to BACT standards.

- In Volume 7, p. 4, KCP&L-GMO states that "due to the uncertain nature of the implementation of CAIR, GMO made a few assumptions on how the rule would progress. GMO assumes that the credit trading market will continue and that compliance will not be mandated on an

individual plant basis. Therefore the risk associated with CAIR is confined to the expectation of NOx and SO_2 credit prices."

- One common feature of these otherwise inconsistent statements is KCP&L-GMO's decision to base its analysis on just one possible regulatory future. By contrast, in Appendix 4B, p. 9, KCP&L-GMO states that "it is not known how or if EPA will revise CAIR in compliance with the Court's decision or promulgate entirely new rules." The Company goes on to list a variety of possible forms the regulation might take.

The inconsistencies described above raise serious questions about the adequacy of the filing's assessment of the cost and other impacts of retaining the Sibley and Lake Road facilities. Adequate analysis of alternatives for the Sibley and Lake Road facilities requires the Company to address these inconsistencies. In the MDNR's view, the inconsistencies should be addressed by systematically assessing the potential costs of compliance under more than one possible alternative future.

Proposed remedy:

KCP&L-GMO should conduct a full analysis of NOx and SO_2 compliance costs, assuming a facility-level requirements approach and assuming a cap-and-trade approach. These analyses should include cost estimates of retrofitting the Sibley and Lake Road units under each emissions cost scenario and cost estimates for retiring Sibley and Lake Road units under each emissions cost scenario.

MDNR #6, 4 CSR 240-22.040(8)D.2 - high and low forecasts for NOx allowance prices

4 CSR 22.040(8)(D) provides in pertinent part:

> (D) Forecasts of the annual cost or value of sulfur dioxide emission allowances to be used or produced by each generating facility over the planning horizon.
>
> 1 Forecasts of the future value of emission allowances shall be obtained from a qualified consulting firm or other source with expert knowledge of the factors affecting allowance prices.
>
> 2 The provider of the forecast shall be required to identify the critical uncertain factors that may cause the value of allowances to change significantly and to provide a range of forecasts and an associated subjective probability distribution that reflects this uncertainty

In its Waiver number 11, the company stated in pertinent part:

> KCP&L-GMO will develop statistically averaged price forecasts for fuel and emission allowance commodities based on various sources of price forecast data. The various commodity price forecasts used in the price forecasts shall be obtained from independent consulting firms and/or government agencies that have expert knowledge and experience with the commodity under consideration. KCP&L-GMO will use the set of commodity price forecasts to develop probability distributions for each…Rationale: In evaluating the accuracy of forecasts to comply with the requirement summarized above, KCP&L-GMO has determined that of the various forecasts it has reviewed, no one forecast provider always outperforms all others. On the other hand, the combination or statistically averaged forecasts consistently is more accurate than most of the forecasts that it represents….

Deficiency:

KCP&L-GMO's methodology for estimating the probability distribution for NOx allowance prices appears to be substantively deficient as well as divergent from rule

requirements. The divergence from rule requirements is not supported by the language in Waiver #11.

Discussion:

For allowances prices for NOx and other pollutants, KCP&L-GMO forecasts both expected "mid" values for emission price and "high" and "low" values that represent the probability distribution around the "mid" values. This analysis is supposed to meet the requirements of 4 CSR 240-22.040(8)(D), as modified by Waiver 11. These requirements are generally understood by the Company and stakeholders to apply not only to $SO_{2,}$ but other criteria pollutants such as NOx that were not yet regulated at the time Chapter 22 was promulgated.

KCP&L-GMO's Waiver 11, as approved by the Commission, states that the company will "use the set of commodity price forecasts to develop probability distributions for each." The methodology actually used by the Company is not transparently reported in the filing. It appears that the Company relied on statistical averaging of third party forecasts to estimate the expected "mid" values of its forecasts and defined the “high” and “low” values of the forecasts as the upper and lower values of the 95% confidence interval surrounding the “mid” value (which is the simple mean of the various forecasts)[4]. This approach treats the individual forecasts as if they are equivalent, i.e., have been taken from the same sampling distribution of all possible forecasts. This treatment of forecasts as equivalent was made apparently without considering the different methodologies that individual forecasters used to develop their

[4] This description of the company's methodology is based on inference from the filing and discussions at the stakeholder information meeting on September 18.

forecasts. Additionally, there is no evidence that KCP&L-GMO considered whether the identified “critical uncertain factors” would impact the individual forecasts.

The rule language in 4 CSR 240-22.040(8)D.2 implicitly assumes that regardless of the identity of the forecaster, it is a standard forecasting practice to consider "critical uncertain factors that may cause the value of allowances to change significantly." In the MDNR's view, this standard remains valid under Waiver 11. In the waiver request that it submitted for Commission approval, KCP&L-GMO did not comment on or request relief from this standard; furthermore, in its filing, the Company implicitly acknowledges the relevance of the standard in its discussion of "critical uncertain factors" that could influence allowance prices for SO_2 and other pollutants. (Volume 4, pp. 93-96).

As noted in MDNR #5, the Company acknowledges in Appendix 4B that EPA's approach to future NOx and SO_2 regulation is uncertain. In the MDNR's view, this uncertainty should affect the determination of the "high" and "low" values that define the probability distribution for NOx and SO_2 prices. Given that future NOx requirements will almost certainly be more stringent than under the original CAIR rule, it is reasonable to assume that if EPA elects to continue a cap-and-trade program, the resulting market for NOx allowances would be robust, driving up allowance prices. Therefore, it is reasonable to expect that the upper boundary of the distribution would correspond to a cap-and-trade approach. On the other hand, it is reasonable to expect that the lower boundary would correspond to the less robust market that would emerge if EPA elects to pursue a non-trading approach with facility-specific emission caps. Because different factors would affect the individual forecasts, which, in turn, would affect the upper and

lower bounds of the distribution, there is no reason to expect that the distribution of high and low values would be symmetrical around the "mid" value.

By contrast, the Company's treatment of future NOx allowance prices arbitrarily assumes a specific regulatory future and develops a forecast in which the high and low values are symmetrically distributed around the expected "mid" value. Volume 4, Table 46 forecasts that NOx annual allowance prices will drop to approximately $200/ton in 2012 and remain at that level throughout the forecast period. The high and low price forecasts in Table 46 are tightly bound around the midrange case.

During the September 21, 2009 stakeholder information meeting, MDNR asked KCP&L-GMO to explain the forecast in Table 46. KCP&L-GMO staff stated that the forecast assumes that future NOx regulation will be based on facility-level emission requirements rather than a cap-and-trade program. KCP&L-GMO stated that this is the rationale for assuming that the Sibley and Lake Road plants should be brought up to BACT standards.

As discussed above in MDNR #5, the decision to base the analysis of NOx credit prices on these particular assumptions about future EPA regulation appears to be arbitrary and inconsistent with other statements in the filing.

MDNR has chosen to raise these issues specifically for KCP&L-GMO's forecast of NOx credit prices. Because the filing lacks methodological transparency, it is difficult to determine whether these issues apply to other emission and fuel price forecasts developed under the requirements of 4 CSR 240-22.040(8)D.2 and 4 CSR 240-

22.040(8)G.2, as modified by Waiver 11. These forecasts should be carefully reviewed to determine whether they similarly are affected.

Proposed remedy:

KCP&L-GMO should develop a series of expected emission cost values at different points in the time horizon by identifying and varying the "critical uncertain factors" behind each forecast. This activity will produce a set of estimated forecast values for emission prices for each year within the time horizon. Once established, these values could be averaged to produce the mean emissions value for each year (representing the "mid" forecast trend line) and the upper and lower limits of the 95% confidence interval for around the mean (for the "high" and "low" values, respectively). The results of this analysis should be incorporated into other analyses that use NOx cost estimates.

MDNR #7, 4 CSR 240-22.040(8) - identification and analysis of uncertain factors

Rule 4 CSR 240-22.040(8) provides in pertinent part:

> Before developing alternative resource plans and performing the integrated resource analysis, the utility shall develop ranges of values and probabilities for several important uncertain factors related to supply resources…[These] shall include at least the following elements… .

Deficiency:

KCP&L-GMO failed to consider uncertainties inherent in the Company's proposed program of emission retrofits and refurbishment at these facilities.

Discussion:

The analysis required by 4 CSR 240-22.040(8) includes the "important uncertain factors" listed in the rule, but is not limited to them. In the MDNR's view, 4 CSR 240-22.040(8) implicitly requires the utility to assess other uncertain factors that are potentially important.

The investments proposed for the Sibley and Lake Road facilities would result in changes in the heat rates and emission rates for those units. The net result of these changes is inherently uncertain because the proposed environmental controls would likely degrade the heat rate and CO_2 emissions rate whereas the plant refurbishments might improve them. If the Company identified these uncertainties and analyzed their potential impact, that analysis is not transparently reported in the filing.

Proposed remedy:

In its revised filing, the Company should analyze the potential impact of the uncertain factors identified in MDNR #7.

MDNR #8, 4 CSR 240-22.050(1)(C), 050(1)(D) and 050(6)(C) - failure to identify and analyze specific end use and point-of-use measures

KCP&L-GMO failed to include combined heat and power (CHP) and a variety of end-use measures in the menu of demand-side measures that were screened. The deficiencies and proposed remedies are discussed in Optimal Deficiency #2, #4 and #6.

The Department proposes adoption of the remedies advanced by Optimal, as follows:

- Remedy for Optimal Deficiency #2: KCP&L-GMO should include measures to save energy in the consumer electronics ("plug load") end use category. These measures should be included without delay in 2010 programs based on the existing analysis noted in Optimal Deficiency #2.

- Remedy for Optimal Deficiency #4: KCP&L-GMO should include CHP measures in its demand-side screening, analyze the potential for CHP in its service territory, and develop and implement a program to acquire these resources as part of its 2010 DSM programs.

- Remedy for Optimal Deficiency#6: KCP&L- GMO should develop prescriptive approaches for the end-use measures listed in Table 14 of the Optimal Deficiency #6, screen the measures, and add those that pass the Probable Environmental Benefits (PEB) test to its programs and portfolio.

MDNR #9, 4 CSR 240-22. 050(6)(C) - inappropriate screening of solar hot water

KCP&L-GMO's screening of solar hot water resources may be flawed. The deficiency and a proposed remedy are discussed in Optimal Deficiency #3.

The MDNR proposes adoption of the remedy advanced by Optimal, as follows:

- Remedy for Optimal Deficiency #13: KCP&L-GMO should develop a pilot project for supporting installation solar hot water systems and hot air systems to evaluate consumer acceptance and metered savings.

MDNR #10, 4 CSR 240-22.050(4) - estimates of demand-side potential

Rule 10 CSR 240-22.050(4) provides as follows:

> (4) The utility shall estimate the technical potential of each end-use measure that passes the screening test….

Deficiency:

The Company's filing presents multiple estimates of market potential for demand-side resources in its service territory that are internally inconsistent and inconsistent with recommendations of consultants retained by the Company.

Discussion:

In addition to estimating the technical potential of end-use measures, KCP&L-GMO estimated market potential for measures that passed screening and were incorporated into programs. In the MDNR's view, the integrity of the Company's estimates are critical to the credibility of the Company's claim, in its executive summary and in stakeholder information meetings, that the demand-side resources included in its preferred resource plan are "the maximum currently identified by the company" [Executive Summary, Vol. 1: p. 9].

A full discussion of the deficiencies in KCP&L-GMO's estimate of DSM potential in its service territory appears in Optimal Deficiency #1. In particular, inconsistencies in the Company's estimates of DSM potential are identified in pp. 11-13 of the Optimal report.

Proposed remedy:

KCP&L-GMO's revision of its DSM analysis, in accordance with the remedy proposed in Optimal Deficiency #1, should result in transparently developed and internally consistent estimates of DSM market and achievable potential.

MDNR #11, 4 CSR 240-22.050(5) - Research plans for assessing DSM markets and program design

Rule 4 CSR 240-22.050(5) provides as follows:

> (5) The utility shall conduct market research studies, customer surveys, pilot Demand-Side programs, test marketing programs and other activities as necessary to estimate the technical potential of end-use measures and to develop the information necessary to design and implement cost-effective Demand-Side programs. These research activities shall be designed to provide a solid foundation of information about how and by whom energy related decisions are made and about the most appropriate and cost-effective methods of influencing these decisions in favor of greater long run energy efficiency.

Deficiency:

The research that KCP&L-GMO cites to demonstrate its compliance with 4 CSR 240-22.050(5) is not sufficient to develop the information necessary to design and implement cost-effective demand-side programs at a level that meets Company and state policy goals.

Discussion:

KCP&L-GMO's filing does not demonstrate research efforts that are sufficient to achieve the Company's policy goal of "achiev[ing] ever higher amounts of DSM energy and peak reductions"[5] or the state's policy goal of achieving "all cost-effective demand side savings."[6] Achieving these goals requires research sufficient to support comprehensive program development.

[5] Executive Summary, p.9
[6] SB 376

Much of the research that KCP&L-GMO cites to demonstrate its compliance with 4 CSR 240-22.050(5) is focused on general customer satisfaction and attitudes rather than research tailored more specifically to support market assessment and program design. This is discussed in detail in Optimal Deficiency #5.

Proposed remedy:

As proposed in Optimal Remedy #5, the Company should, in consultation with the parties, develop a comprehensive research plan that complements its evaluation plan and is targeted on energy efficiency.

MDNR #12, 4 CSR 240-22.060(3) - development of an appropriate set of alternative resource plans

Rule 4 CSR 240-22.060(3) provides as follows:

> The utility shall use appropriate combinations of candidate Demand-Side and supply side resources to develop a set of alternative resource plans, each of which is designed to achieve one (1) or more of the planning objectives identified in 4 CSR 240-22.010(2).

The Non-Unanimous Stipulation and Agreement filed in November, 2007 in EO-2007-0298 provides in pertinent part:

> (33) In its next Resource Plan Filing, as discussed with Staff, OPC and DNR, Aquila will employ its best efforts to utilize alternate approaches to the integration of DSM programs and will use its best efforts to include a second, more aggressive set of DSM programs.

Deficiency:

MDNR #12A: The set of alternative resource plans developed for the filing do not meet the requirements of paragraph 33 in the Stipulation and Agreement.

MDNR #12B: The set of alternative resource plans developed for the filing is not sufficient to adequately review the Company's resource options and identify the optimal alternative for meeting planning objectives.

Discussion:

MDNR #12A: The set of alternative plans defined by the Company includes plans with two different levels of load impact from new DSM programs. Several of the plans, including Plan 22, which was selected as the preferred resource plan, incorporate the "all DSM" portfolio. One plan, Plan 16, incorporates the "1% DSM" portfolio.

Because the load impacts attributed to the "1% DSM" portfolio are more aggressive than those estimated for the "all DSM" portfolio, the inclusion of Plan 16 in the set of alternative plans would at first sight appear to meet the requirements of paragraph 33 of the November 2007 Non-unanimous Stipulation and Agreement.

However, paragraph 33 specifically refers to a "set of DSM programs," not to a DSM portfolio. Plan 16 specifies load impact goals but does not specify the net of actual DSM programs that would be implemented to meet these goals.

Furthermore, paragraph 33 says that the set of DSM programs are to be "included" in the analysis. Although the Company includes Plan 16 in its list of the set of alternative plans, it does not include Plan 16 in critical aspects of its risk analysis or integrated analysis. For example, Plan 16 is not included in the sensitivity analysis used to

determine critical uncertain factors and it is not included in the selection process for the preferred resource plan.

MDNR #12B: The Company does not explicitly describe the process by which it identified a set of alternative resource plans that were deemed "appropriate" to achieve planning objectives. To assess the appropriateness of the set of alternative plans identified by the Company, the MDNR carefully reviewed relevant statements in Volume 6 and the Executive Summary. Based on these statements, the set of alternative resource plans should be adequate:

1. To "analyze several levels of supply-side resources that included base load generation and renewable resource inclusion, peak-load generation, varying levels of demand-side resources, and retirement scenarios." (Volume 6, p. 1)
2. To select the preferred plan "from a Net Present Value of Revenue Requirements (NPVRR) perspective." (Volume 1, p. 8)
3. To "fulfill the requirements of Missouri's Proposition C (Prop C) renewable Energy Standard." (Volume 1, p. 8)
4. To "provide insight on the company's plan to achieve ever higher amounts of DSM energy and peak reductions." (Volume 1, p. 9)

The set of alternative resource plans identified by the Company is not sufficient to adequately review the Company's resource options with respect to the factors listed

above. This deficiency is a consequence of prior deficiencies in the Company's demand-side and supply-side analyses.

The set of alternative plans does not provide an adequate review of resource retirement scenarios, as discussed in Synapse Deficiency #1. The key reason for this deficiency is that the Company failed to analyze retirement options for Sibley Unit 3 and Lake Road Units 4-6, as discussed in MDNR #2.

The set of alternative resource plans provides adequate review of potential supply-side resources only if the resource retirement options are limited to Sibley 1 and 2. Even then, the alternative plans may not provide adequate review of opportunities for accelerated implementation of wind additions.

If resource retirement options are expanded to include Sibley 3 and Lake Road 4-6, as MDNR Remedy for Deficiency #2 proposes they should be, the set of alternative plans will need to be revised to include plans with the additional energy efficiency, demand response, gas-fired peaking and wholesale market purchases that are necessary to serve the load that would have been served by the retired facilities.

Finally, the set of alternative plans does not provide an adequate review of varying levels of demand-side resources because demand-side resources were not treated as scalable as discussed in Optimal Deficiency #1. Furthermore, as discussed in MDNR #12A, the set of alternative plans includes only one fully-specified set of new demand-side programs.

The set of alternative plans does not provide an adequate review of alternatives to achieve the lowest cost plan because of deficiencies in KCP&L-GMO's demand-side analysis as discussed in Optimal Deficiency #1.

The set of alternative plans provides utility-scale alternatives for meeting known requirements of the state's Renewable Energy Standard. As discussed in MDNR #4, the treatment of customer-sited renewable resources is deficient. However, the Company has indicated its intention to reassess customer-sited resources. If the Company follows through on this commitment, its implementation plan for acquiring renewable resources is probably sufficiently generic to accommodate changes based on the reassessment.

The set of alternative plans does not provide an adequate review of options for achieving the Company's goal of "ever higher amounts of DSM energy and peak reductions" or the state policy goal of "all cost-effective demand-side savings" due to a host of issues including arbitrary limits on DSM scalability, investment horizon and implementation levels (Optimal Deficiency #1), omission of promising end-use and point-of-use demand-side measures (Optimal Deficiencies #2,# 4 and #6), inadequate plans for market research (Optimal Deficiency #5), limited planning horizon (Optimal Deficiency #7) and deficiencies in the analysis of achievable DSM potential (MDNR #10).

In general, the cumulative effect of the deficiencies listed above is to fatally limit KCP&L-GMO's ability to assess the resource decisions that must occur prior to its next filing. It is very feasible that the Company has opportunities to acquire energy and capacity from combinations of energy efficiency, demand response, gas-fired peaking

resources, wholesale market purchases, and wind energy that are less costly than acquiring energy and capacity from retrofitted Sibley 3 and/or Lake Road 4-6. However, the set of alternative plans developed by the Company are inadequate to identify these opportunities.

Proposed remedy:

MDNR #12A: The revised set of alternative resource plans should include at least two alternative sets of new DSM programs with different levels of estimated load impact.

MDNR #12B: When revising its integrated resource analysis, the company should develop a set of alternative resource plans that is adequate to assess resource decisions on potential plant retirements and aggressive development of demand-side resources. In MDNR's view, these are decisions that cannot be postponed until the Company's next filing.

The revised set of alternative resource plans should include 1) the retirement of Sibley 3; 2) the retirement of Lake Road 4-6; and 3) the retirement of both Sibley 3 and Lake Road 4-6 combined. Permutations involving Sibley 1 and 2 retirements should also be considered. When identifying resources needed to replace the energy that would have been provided by the coal-fired units that are being retired, the utility should consider opportunities for accelerated acquisition of wind resources as discussed in Synapse Deficiency #2.

The DSM analysis should meet the remedies proposed in these comments for the remedies to MDNR deficiencies #1, #8. #9, #10 and #11, and the revised set of

alternative resource plans should incorporate the changes in the Company's DSM analysis that result from meeting these remedies.

All alternative plans should be fully included in the Company's risk, integrated and contingency analysis and should be analyzed in the same manner.

MDNR #13, 4 CSR 240-22.060(4) - planning horizon for demand-side resources in alternative resource plans

Rule 4 CSR 240-22.060(4) provides as follows:

> The analysis shall cover a planning horizon of at least twenty (20) years.

Deficiency:

The filing uses a planning horizon of only 5 years for demand-side resources except for its demand response offerings, Optimizer and MPower. Its modeling shows only five years of implementation budget for DSM programs.

Discussion:

This issue is discussed in Optimal Deficiency #7.

Proposed remedy:

In its revised filing and future filings, the Company should develop demand-side resource acquisition plans for the full planning horizon and project implementation beyond the fifth program year.

MDNR #14, 4 CSR 240-22.060(6)(A) - reporting requirement: schedules for plant retirements

Rule 4 CSR 240-22.060(6)(A) provides in pertinent part:

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

Deficiency:

KCP&L-GMO states in Volume 6, p. 21 that this requirement is met with the data shown in Volume 6, Tables 1-24. Tables 1-24 do not indicate the schedule for resource retirements. Tables 14-18 in the Supplemental filing, for the five plans that include retirements (Plans 7-11), do not include the required schedule.

Discussion:

This information is important to understanding KCP&L-GMO's current filing and will be even more critical when KCP&L-GMO provides a revised IRP analysis that incorporates retirement alternatives for Sibley 3 and Lake Road 4-6.

Proposed remedy:

KCP&L-GMO should revise the format used in Tables 1-24 to include a column that indicates the annual schedule for resource retirements.

MDNR #15, 4 CSR 240-22.060(6)(B) - reporting requirement: summary tabulations

4 CSR 240-22.060(6)B provides as follows:

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

Deficiency:

Volume 6, Section 6.2, p. 21 acknowledges this reporting requirement but does not provide the tabulation required by the rule.

Proposed remedy:

In its revised filing, the Company should make the tabulation available to all the parties.

MDNR #16, 4 CSR 240-22.060(6)C - reporting requirement: plots of results from alternative resource plan analysis

Rule 4 CSR 240-22.060(6)(C) provides as follows:

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

Deficiency:

The charts provided to comply with this rule are not readable, and the Company did not provide the underlying data used to generate the charts.

Discussion:

There was general agreement at the initial stakeholder information meeting that the charts are not usable. The Company has made no subsequent effort to provide usable charts.

Proposed remedy:

In its revised filing, in consultation with the parties the Company should provide the charts and underlying data in a format that is usable.

MDNR #17, 4 CSR 240-22.070(2) - sensitivity analysis to identify critical uncertain factors

Rule 4 CSR 240-22.070(2) provides as follows:

> (2) Before developing a detailed decision tree representation of each resource plan, the utility shall conduct a preliminary sensitivity analysis to identify the uncertain factors that are critical to the performance of the resource plan.

Deficiency:

MDNR #17A: The methodology used by KCP&L-GMO to identify critical uncertain factors relies on inappropriately specified alternative resource plans and the validity of the Company's estimates of "high" and "low" values for the uncertain factor.

MDNR #17B: MDNR questions whether the methodology used by KCP&L-GMO to identify critical uncertain factors is appropriate. A methodology based on testing the sensitivity of alternative plan selection to the full range of values within a continuous probability distribution of possible values for the uncertain factor seems more appropriate for the purpose required by 4 CSR 240-22.070(2).

To the extent that the inputs to the analysis are deficient (Deficiency #17A) or that the methodology used for the analysis is inappropriate (Deficiency #17B), the Company

may have failed to identify as critical some factors that should have been identified as critical uncertain factors.

Discussion:

For clarity, this discussion will use the example on NOx credit prices. Similar issues may apply to other uncertain factors that were subjected to sensitivity analysis.

Volume 7, p. 4 states that " High and low NOx credit scenarios were developed and input into CapEx. Due to the small changes in optimal plans from CapEx, GMO determined that future NOx credit prices do not constitute a critical uncertain factor and therefore are not included in the integrated analysis."

Deficiency MDNR #17A: As discussed in MDNR #12, the Company's specification of alternative resource plans is deficient and should be revised. MDNR anticipates that the revised set would include plans where the DSM portfolio is more aggressive than the "all DSM" portfolio and plans where the supply-side resources reflect the retirements of Sibley 3 and/or Lake Road 4-6. Because coal-fired generation is likely to be more NOx-intensive than alternatives such as DSM, it is possible that analysis of the revised set of plans would indicate that optimal plan selection is sensitive to NOx credit prices.

As discussed in MDNR #6, the Company's methodology for determining the "high" and "low" values for NOx credit prices is deficient. Correctly estimated, the "high" value would probably be higher and the "low" value would probably be lower than those estimated by the Company. Therefore, it is possible that analysis under the revised

"high" and "low" values would indicate that optimal plan selection is sensitive to NOx credit prices.

In the Department's view, it is very likely that under the combination of a revised set of alternative resource plans and revised "high" and "low" values for NOx credit prices, the analysis would indicate that NOx credit pries affect optimal plan selection and therefore should be treated as a critical uncertain factor.

MDNR Deficiency #17B: The Company elected to base its sensitivity analysis on a probability distribution for NOx credit prices that consists of just three points - mid, high and low. Alternatively, the Company could elect to base the analysis on a continuous distribution of NOx credit prices and to test sensitivity of plan selection along the entire range of possible NOx credit prices This approach would have the advantage of indicating more precisely the upper and lower thresholds at which optimal plan selection is sensitive to NOx credit prices. As discussed in MDNR #19, this information would be valuable in contingency planning and monitoring required under 4 CSR 240-22.070(10)(A)-(C).

Proposed remedy:

Remedy MDNR #17A: In KCP&L-GMO's revised filing, the sensitivity analysis required by the rule should incorporate all revisions to the alternative resource plans and probability distributions for values of uncertain factors that result from remedying MDNR Deficiencies #5, #6 and #12.

Remedy MDNR #17B: In KCP&L-GMO's revised filing, to assure that the sensitivity analysis required by the rule is based on valid values for the probability distribution of a factor, the Company should review the issues discussed in MDNR #17B and make any corrections necessary to assure a valid sensitivity analysis. Modeling results, including descriptive statistics showing the mean value, standard deviation value, minimum value and maximum value of each continuous factor included in the sensitivity analysis, should be provided in the revised filing.

MDNR #18, 4 CSR 240-22.070(10) - official adoption of resource acquisition strategy

Rule 4 CSR 240-22.070(10) provides:

> (10) The utility shall develop, document and officially adopt a resource acquisition strategy. This means that the utility's resource acquisition strategy shall be formally approved by the board of directors, a committee of senior management, an officer of the company or other responsible party who has been duly delegated the authority to commit the utility to the course of action described in the resource acquisition strategy.

Deficiency:

KCP&L-GMO presents its resource acquisition strategy in Volume 7A of the filing. KCP&L-GMO asserts that the "corporate approval statement" on Volume 7A, page 4 indicates official adoption of the resource acquisition strategy. This "approval statement" does not meet the requirement in 4 CSR 240-22.070(10) because it does not state unambiguously that the Company has committed to the course of action specified in the resource acquisition strategy.

Proposed remedy:

The Company should revise the adoption statement so that it commits the utility to the course of action described in the resource acquisition strategy. Prior to filing the revised IRP, the revised statement should be reviewed and officially adopted.

MDNR #19, 4 CSR 240-22.070(10)(D) – alternative formulations for contingency planning

Rule 4 CSR 240-22.070(10)(D) provides as follows:

> (10)(D) A set of contingency options that are judged to be appropriate responses to extreme outcomes of the critical uncertain factors and an explanation of why these options are judged to be appropriate responses to the specified outcomes

Deficiency:

The methodology adopted by KCP&L-GMO for compliance with the requirements of 4 CSR 240-22.070(10)(D) does not account for the volatile and continuous nature of these critical prices and interest rates. Additionally, this methodology does not fully capture the interaction of different factors in creating circumstances that will warrant a change in resource plan.

Discussion:

KCP&L-GMO has identified a set of critical uncertain factors, along with levels for these factors that would cause the Company to reconsider its preferred resource plan (see Volume 7A, pages 14-16). The analysis defines each critical uncertain factor at three points (low, mid and high) and treats the likelihood of adopting an alternative

resource plan as the product of a series of discrete threshold events (i.e., when a supply price exceeds a pre-determined limit).

The contingency analysis as presented treats the critical uncertain factors as discrete quantities, implying that the Company will reconsider its resource plans when a single factor falls outside an established threshold value. The presentation also implies that the identified critical uncertain factors (CO_2 price, Natural Gas price, Load Growth, Construction costs, Coal price, and Interest rates) are independent. In reality, these factors are all highly volatile quantities that are closely related to each other. The analysis does not explicitly account for either this volatility of the interdependence of emissions prices, fuel prices, and other critical costs. The presentation does not suggest how the utility would address situations where multiple critical uncertain factors change together for an extended period.

The November 2, 2009 Supplementary Filing confirmed that the contingency analysis varied the critical uncertain factors individually (see Supplemental Filing, page 31), rather than modeling any covariation or interaction among the factors. MDNR was unable to assess the quantitative results of the supplemental analysis because Tables 32 and 34 in the Supplemental Filing were blacked out.

Remedy:

A revised contingency plan would account for the continuous nature of the critical uncertain factors and their inter-correlations to identify a more robust set of circumstances for which consideration of alternative resource plans is called. This analysis should use the inputs from the sensitivity analyses discussed on MDNR #17 to

develop a more robust and realistic model of the circumstances that warrant a change in resource plans.

MDNR #20: 4 CSR 240-22.080(2) - Timing of KCP&L-GMO proposal for nontraditional accounting treatment

Rule 4 CSR 240-22.080(2) provides as follows:

> (2) The electric utility's compliance filing may also include a request for nontraditional accounting procedures and information regarding any associated ratemaking treatment to be sought by the utility for Demand-Side resource costs. If the utility desires to make any such request, it must be made in the utility's compliance filing pursuant to this rule and not at some subsequent time.

Deficiency:

KCP&L-GMO has not complied with the requirement to submit its proposal "in the utility's compliance filing pursuant to this rule and not at some subsequent time."

Discussion:

Volume 8, section 2 of the Company's filing includes a proposal for "nontraditional accounting procedures" that includes three elements: deferral of DSM program costs and accrual of an allowance for funds used during construction; recovery of lost margins; and a performance incentive for meeting or exceeding DSM program energy goals.

In a response to MDNR DR #45 dated November 16, KCP&L-GMO apparently abandoned the proposal set forth in the filing and substituted an alternative proposal. This alternative proposal, which is summarized in MDNR #22 and is described in the

Optimal Report, pp. 21ff, was not part of KCP&L-GMO's supplemental filing and is being provided by KCP&L-GMO to other parties only if they specifically request it.

Proposed remedy:

If KCP&L-GMO wishes to request a "nontraditional accounting treatment" that differs from that in Volume 8 of the IRP filing, it should withdraw the proposal presented in the filing and seek a different regulatory venue for discussion of the revised proposal or file it as a supplemental filing and provide other parties with an opportunity to review and comment.

MDNR #21 - KCP&L-GMO's request for "nontraditional accounting treatment" conflicts with regulatory best practices for performance incentive mechanisms.

Appropriate goals for an incentive performance mechanism include goals such as aligning utility interests with the ratepayers' interest in reducing bills, encouraging exceptional performance, promoting stabilization of customer rates and bills, and stabilizing utility revenues. In MDNR's view, KCPL-GMO's proposed performance incentive mechanism lacks features that are commonly included in such mechanisms and fails to advance goals such as those listed here. Considerations supporting this view are discussed in the Optimal report, p. 23.

MDNR #22 - KCP&L-GMO's proposed performance incentive mechanism would provide excessive returns compared to normal regulatory practice

MDNR supports appropriate incentives for performance in achieving DSM program goals, relative to the level of investments and risk. A number of states have

established performance incentive mechanisms to reward utilities for exceptional performance in developing and implementing DSM programs. Incentives are unnecessary if DSM program expenditures and savings are not significant, and therefore do not cause risk to the utility for such investments and reductions in energy use and load. A performance incentive mechanism should not reward mediocre performance at levels that exceed rewards provided in other states for exceptional performance.

In MDNR's view, KCP&L-GMO's proposal is not consistent with the principles stated above. Considerations supporting this view are discussed below and on page 26 of the Optimal report.

In its revised performance incentive proposal, KCP&L-GMO proposes ****

In MDNR's view, the goals for demand-side program savings included in KCP&L-GMO's preferred resource plan do not achieve meaningful levels of savings. The Optimal report identifies KCP&L-GMO's DSM goals as **** KCP&L-GMO's proposed performance incentives are not appropriate relative to its level of proposed DSM investments and risk.

To place KCP&L-GMO's performance and award levels in context, MDNR has completed an analysis of performance incentive programs in other states. Twelve states have incentive programs with specified levels of performance and specified levels of awards. The average minimum performance level is 77.8% of a specified savings or net benefits target; with no performance award for performance less that each state's minimum value. For these twelve states the average minimum performance award is

5.6% of savings or net benefits and the average maximum performance award is 12.0% of savings or net benefits.

WHEREFORE, the MDNR submits its comments on the Integrated Resource Plan filed August 5, 2009 by KCP&L-GMO.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or e-mailed to all counsel of record this 10th day of December, 2009.

/s/ Shelley A. Woods
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