

BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

In the Matter of the 2009 Resource)
Plan of KCP&L Greater Missouri) Case No. EE-2009-0237
Operations Company)
Pursuant to 4 CSR 240-22.)

COMMENTS OF DOGWOOD ENERGY, LLC

COMES NOW Dogwood Energy, LLC (“Dogwood”) and respectfully submits its Comments in this proceeding pursuant to 4 CSR 240-22.080(6) regarding KCP&L Greater Missouri Operations Company’s (GMO’s) IRP compliance submission. In accordance with Rule 22.080(6), Dogwood has identified deficiencies of GMO’s submittal to be further addressed by GMO, the other parties, and the Commission, as stated herein:

I. Introduction and Summary

1. GMO submitted its IRP materials in August, 2009. As the Commission has stated in prior IRP orders, “The purpose of the Commission’s integrated resource planning rule is to require Missouri’s electric utilities to undertake an adequate planning process to ensure that the public interest in a reasonably priced, reliable, and efficient energy supply is protected.” See ORDER APPROVING STIPULATION AND AGREEMENT AND ACCEPTING 2006 INTEGRATED RESOURCE PLAN, Case No. EO-2007-0008, p. 1-2 (4/22/07). Sound planning for a reliable supply of energy protects and serves the public interest.

2. Although GMO's IRP submittal at the surface appears quite comprehensive in its coverage of topics that will affect GMO's long-term resource acquisition strategy, a number of topics are not adequately addressed in the IRP or in supplemental materials submitted by GMO. In particular:

- The IRP fails to take seriously competitively bid resources as means of meeting GMO's future resource needs. Rather, GMO apparently did not even evaluate the competitive bids submitted in response to its RFP in the course of conducting its integrated resource analysis, risk analysis and strategic selection.
- GMO appears to assume transmission capacity will be available to deliver 900 MW of new wind resources under its preferred plan, without explanation. ** _____

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- The IRP fails to address uncertainty over the costs and rate treatment of the Crossroads generating units. ** _____
_____.** There is no indication that GMO attempted to determine whether competitively bid generating resources are available at a lower cost to ratepayers. Nor does the IRP contain any discussion as to what strategy GMO would pursue should the Commission deny inclusion of Crossroads in rate base. This appears to be a significant risk factor, based on evidence presented by Staff and other parties in prior rate cases that ultimately settled before a Commission decision on the merits, yet GMO appears to have ignored it entirely.
- The risk analysis performed by GMO to identify its preferred resource strategy suffers from serious theoretical and implementation flaws. As a consequence, it presents a highly skewed analysis in support of GMO's choice of Plan 22 as its "Preferred Resource Plan."

The remainder of Dogwood's comments elaborates on these four issues.

II. Lack of Consideration of Competitively Bid Resources

3. On September 11, 2008, GMO issued an RFP for competitively bid resources. The RFP was reproduced as Appendix 4c to the IRP. Exhibit A of the RFP states that GMO anticipates a need for 800 MW of additional capacity and energy resources in the 2011-2017 timeframe. Moreover, this RFP specifically stated it was not addressing renewable generation, for which a separate RFP would be issued. The RFP requested both short-term and long-term (20 years or

longer) proposals. GMO received a number of responses to this RFP, which are included as HC Appendix 4f of the IRP.

A. GMO Load Forecast and Resource Availability

4. GMO's load forecast, which is included as Volume 3 of the IRP, projects continued peak load and energy growth. Table 1 shows that peak load growth is expected to be 1.2% over the 2010 – 2020 timeframe, while energy growth will average 1.7%. Yet, despite the RFP's having identified a need for 800 MW of new firm capacity resources, none of the RFP responses were considered.

5. Furthermore, despite the ongoing controversy over inclusion of the Crossroads generating units into rate base, GMO failed to even consider in the IRP whether competitively bid generation could replace Crossroads at a lower cost. Nor was the potential for adverse rate treatment for the Crossroads units considered as a risk in the IRP, despite this risk potentially affecting GMO's need for alternative generating resources today, much less in the future.

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6. GMO apparently needs to obtain new resources, as its preferred plan shows it acquiring an additional 500 MW of non-Proposition C wind resources, beginning in 2012. Yet GMO disregards competitively-bid resource options based on an asserted lack of need for any new generating resources. The IRP clearly indicates there is a need for new energy and capacity resources. Moreover, wind generation cannot provide the same firm capacity that fossil-fuel generation provides. However, nowhere in the IRP does GMO discuss how it would “firm up” the 900 MW of wind resources it would acquire under Preferred Plan 22.

7. The need for new generating capacity to meet forecast peak and energy requirements may also be exacerbated by pending greenhouse gas legislation, as well as pending regulatory actions by the U.S. Environmental Protection Agency (EPA), which issued a finding that greenhouse gas emissions can be regulated under the U.S. Clean Air Act. Should EPA enact such regulation, including so-called “best available control technology” (BACT) requirements on coal-fired power plants, the potential impacts on GMO’s current resource mix could be significant. Dogwood notes that, according to the Table 2 of Volume 1 of the IRP, GMO is estimated to obtain over 85% of its electric energy requirements from coal-fired generation.

B. Availability of Transmission Capacity

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C. Competitive Bids Provide the Most Accurate Price Signals

9. GMO devotes significant discussion in the IRP to estimated costs of new generating resources, including estimates of environmental costs. However, competitive bids provide far

more accurate information regarding the true cost of generating resources, including environmental mitigation costs, than do hypothetical studies, which are by their nature generic.

10. Although GMO indicates that it may use competitive bid solicitations to meet its Proposition C wind and solar capacity requirements, GMO makes no such statements about fossil-fuel generation. Yet, competitive bidding could be used today to determine the prudence of anticipated continued attempts to include the Crossroads generating units in ratebase, which is surely a major supply risk facing GMO today.

11. If GMO wishes to prepare a truly “least-cost” resource plan, the company should issue a competitive solicitation for generating resources to replace the Crossroads generation it has previously asked to include in rate base, given that the Commission has yet to rule on the issue.

12. As for the future, GMO’s IRP indicates that it needs to obtain new generating resources, above and beyond the wind generation required under Proposition C. Under Preferred Plan 22, GMO shows that it will acquire a total of 900 MW of additional wind generation. Under its High Load uncertainty analysis, the company shows that it would choose Alternative Plans 23 or 24. Yet, these plans do not show acquisition of more generating capacity, which is counterintuitive.

III. Risk Analysis

13. The risk analysis performed by GMO is inadequate. GMO evaluated some risks selectively, **

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A. Problems with GMO's Linear Programming and Decision Model Approach

14. Dogwood understands that GMO used a linear programming (LP) model to eliminate risks that did not affect the choice of portfolio. Page 2 of Volume 7 states that only those risks that showed a demonstrable effect on the choice of portfolio in the LP modeling were considered to be “Critical Uncertain Factors” in GMO’s subsequent decision tree modeling.

15. GMO’s use of a LP model to eliminate certain risks was fundamentally flawed because it failed to consider any covariant risk. That is, the GMO analysis did not allow for any correlation between different risks. Instead, GMO analyzed each risk factor individually to determine whether it affected the choice of portfolio. The lack of any covariant risk consideration is a serious flaw in GMO’s analysis, because it will tend to underestimate the impacts of any individual risk. For example, high carbon prices may be correlated with high generation construction costs for coal-fired units, if those units are outfitted with carbon capture. As a result, the risk factors that GMO determined to not be “Critical Uncertain Factors” may have been wrongly eliminated.

16. GMO stated that it used the LP program to narrow down the resource plan alternatives to the 24 plans it presents in the IRP. GMO then applied a decision analysis model to further evaluate each of these plans. For each of the 22 plans, GMO prepared what is called a “tornado diagram” of the major risk factors. However, tornado diagrams do not consider joint risks. Thus, GMO has understated the potential cost risks in the 24 different portfolios.

17. GMO states that it eliminated all branches of the decision tree with conditional probabilities less than 0.5%, removing all but 62 possible outcomes. GMO states it then added two “extreme” outcomes. The resulting 64 outcomes and their conditional probabilities are shown in Figure 1 of Volume 7. The problem with this approach is that GMO failed to allow for

correlation among the different risks. Therefore, its initial elimination of the majority 424 of the 486 scenarios is wrong. By eliminating these purportedly “unlikely” scenarios, GMO may in fact have eliminated from consideration scenarios that present critical risks for the 24 alternative plans GMO evaluated.

18. GMO’s breakeven analysis of risk (shown in Table 34 of the Corrected 2009 Supplemental Filing) is a single-factor approach and also fails to address correlations amongst the risks it does identify. This is the likely reason that Preferred Plan 22 appears to be so “robust” to the risks analyzed by GMO. As a result, the probabilities shown in this table are not empirically valid and the “robustness” of Preferred Plan 22 is not shown.

B. Failure to Consider Specific Potential Risks

19. GMO failed to consider the following risks, thus biasing the choice of preferred resource plan:

- GMO argues in Volume 7 that there are no cost risks to DSM because expenses are constant. While this may be true, the energy saved from that DSM and reductions in peak load are not known with certainty. However, GMO’s analysis failed to address this uncertainty in its risk analysis. DSM savings cannot be predicted with certainty.
- GMO failed to address issues associated with “firming” the 900 MW of wind generation it will obtain under its preferred Plan 22. There is no discussion of this issue in its risk analysis even though the costs of firming wind resources are clearly correlated with fuel and construction costs. In the last KCPL IRP proceeding, in light of reliance on wind generation, the company agreed to semi-annual reporting to Staff,

Public Counsel, and interested parties to assure close monitoring of the adequacy of capacity reserves and related RFPs for supplemental capacity.

- GMO failed to address risks associated with regulation of greenhouse gases under the auspices of the EPA, which may impose “command and control” regulation in lieu of a “cap-and-trade” market system, especially in light of the EPA’s recent “endangerment” finding. The result could be premature retirement of the coal-fired plants that GMO-GMO currently relies on for over 85% of its electric generating supply.
- GMO did not consider the risk that there would be insufficient transmission interconnection availability for the 900 MW of planned wind generation under any of its Alternative plans, **

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- GMO did not allow for the potential of differential changes in construction costs. For example, more stringent state and/or federal RPS requirements will likely drive up the capital cost of wind resources because of supply/demand conditions. Yet, capital costs of other forms of generation may not increase to the same extent, or may even decrease in response to those same supply/demand conditions.
- Under high load growth sensitivity, GMO identifies Alternative Plans 23 and 24 as being preferred over Preferred Plan 22. Yet, Plans 23 and 24 have GMO acquiring slightly less generation than under Plan 22. This is a counterintuitive result. Moreover, Preferred Plan 23 includes coal with carbon capture, which is likely far

more expensive than gas-fired generation. Again, this is counterintuitive and not explained in the IRP.

- GMO failed to address the potential risk of removal of the federal investment tax credit for wind generation.
- GMO has not considered the risk that the Crossroads units will not be placed into rate base and the resulting need for replacement generation.

IV. Concluding Remarks

Dogwood appreciates the efforts GMO has made in preparing its IRP. However, the IRP suffers from critical analytical shortcomings. As a result, in Dogwood's opinion, GMO's recommendation of Alternative Plan 22 is not justified. Furthermore, GMO's inconsistent treatment of competitively bid resources appears to indicate that GMO has not given serious thought to such resources and how they may meet the needs of GMO's customers at the lowest cost. This is especially the case given the ongoing uncertainty over the Crossroads units, something which this IRP failed to even consider.

GMO and the other parties should work together in accordance with Rule 22.080 to develop a joint agreement to remedy all deficiencies identified by the parties, in order to achieve a satisfactory resolution to this proceeding.

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CERTIFICATE OF SERVICE

A true and correct copy of the foregoing was emailed, faxed or mailed by U.S. Mail, postage paid, this 10th day of December, 2009, to the persons shown on the attached list.

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