BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

In the Matter of the Resource Plan of KCP&L Greater Missouri Operations Company.	)))	File No. EO-2012-0324

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(8) regarding KCP&L Greater Missouri Operations Company's (GMO's) IRP compliance filing. In accordance with Rule 22.080(8), in its Comments Dogwood identifies deficiencies of GMO's submittal which need to be further addressed by GMO, the other parties, and the Commission, by means of a new IRP submittal, as soon as possible.

I. Executive Summary

The Commission should direct GMO to comply with the Commission's IRP rules and previous orders, and achieve a full and fair analysis of Dogwood's combined cycle generation plant as a supply-side resource, by developing a new set of planning materials after taking the following action to correct deficiencies in its IRP submittal:

1. Eliminate improper bias precluding consideration of acquisition of minority interest in the Dogwood plant.

2. Eliminate improper assumptions requiring excessive incremental additions of combined cycle capacity.

3. Eliminate false assumptions about the efficiency and cost of the Dogwood plant.

4. Conduct a more robust analysis of retirement of existing GMO plants.

Because GMO has failed to comply with the Commission's previous orders to address these deficiencies on the normal IRP filing schedule, the only appropriate remedy this time around is for the Commission to order GMO to correct all identified deficiencies and make a new IRP submittal as soon as possible.

Based on GMO's current submittal, correction of the foregoing deficiencies would likely elevate the Dogwood plant to preferred resource status, in a plan with the lowest NPVRR among feasible alternative plans. GMO's management should have access to such accurate planning information before embarking on final analysis of such things as the benefits of acquiring an interest in an existing plant rather than undertaking the risks of new construction, and the specific terms and conditions of acquiring an interest in the plant. GMO should not eliminate the Dogwood plant as a unique and legitimate alternative resource by means of deficient planning methods. The arbitrary and artificial constraints on managerial options identified herein prevent GMO from delivering the best results for its ratepayers and deprive Dogwood of fair consideration as a potential supplier to a monopoly utility.

II. Background

Dogwood is the majority owner of the 650 MW gas-fired combined cycle generating facility located in Pleasant Hill, Missouri, which is within GMO's MPS service territory. Dogwood acquired and improved the plant with an ultimate business purpose of reselling it to local load serving entities. So far, 27.5% (approximately 180 MW of capacity) has been sold to municipal utilities in Missouri and Kansas and another 34% (approximately 220 MW) is either under contract to be sold or under an exclusivity agreement. Currently, 38.5% of the Dogwood facility remains available for sale discussions, which is approximately 250 MW of

capacity. Dogwood is the only independent power producer in GMO's territory and, therefore, offers a unique resource alternative to GMO. Likewise, as the regulated monopoly utility most proximate to the Dogwood plant, GMO has a unique status as a potential future owner of the plant.

GMO submitted its IRP materials in April 2012. 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, File No. EO-2007-0008, p. 1-2 (4/22/07). Sound planning for a reliable supply of energy protects and serves the public interest.

The Commission's new resource planning rules likewise provide that "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 compliance with legal mandates, and in a manner that serves the public interest and is consistent with state energy and environmental policies." 4 CSR 240-22.010(2).

By rule, GMO must "use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan." 4 CSR 240-22.010(2)(B). The only exceptions to the foregoing mandate are constraints "which are critical to meeting the fundamental objective of the resource planning process." 4 CSR 240-22.010(2(C).

In File No. EO-2011-0271, the Commission provided additional insight into the requirements of the rule, finding that Ameren had used present worth of long-run utility costs

as the primary selection criterion when it assigned the greatest weight to that factor, as compared to four others, and then selected a higher cost plan due to constraints recognized by the rule.

Concerning supply-side resource analysis, the Commission's rules require GMO to "evaluate all existing supply-side resources and identify a variety of potential supply-side resource options which the utility can reasonably expect to use, develop, implement or acquire." 4 CSR 240-22.040(1). The potential supply-side resource options that GMO was required to consider under the rule "include full or partial ownership of new plants". Id.

When the Commission issued its Report and Order in File No. EE-2009-0237 regarding GMO's previous IRP submittal, it ordered GMO to "address **all concerns** raised by the parties to this action in its April 2012 Integrated Resource Plan filing." Dogwood was one of the parties to that action, and its concerns as set forth in its Brief included:

- lack of full and fair consideration of its 650 MW combined cycle plant as a resource option;

- failure to examine anew the purchase power agreement with the City of Clarksdale, Mississippi, for the Crossroads combustion turbine plant;

- failure to use current information; and

- bias towards predetermined actions.

As stated, the Commission ordered GMO to address all these concerns.

In File No. EO-2012-0042, the Commission directed GMO to consider a variety of Special Contemporary Resource Planning Issues, including analysis of "the existing coal plant fleet as retirement candidates."

III. GMO's IRP Resource Plan Evaluation and Selection

GMO summarizes its stated Preferred Plan, ACCG9, and the twenty-one alternative resource plans that it developed for integrated resource analysis on pages 19 to 26 of its Volume 1: Executive Summary dated April 2012. Plan ACCG9 is the GMO-allocated portion of a leading combined company plan for GMO and KCPL developed for this IRP. GMO notes on page 25 of the Executive Summary that, "[t]he Preferred Plan was not the lowest cost plan from a Net Present Value of Revenue Requirement (NPVRR) perspective. There are Alternative Plans that showed a lower NPVRR." In fact, GMO's Preferred Plan is ranked 5th overall out of the twenty-one plans evaluated. See GMO: Plan Ranking – 20-Year NPVRR (Expected Value), attached hereto. However, as GMO explains, the top four plans based on NPVRR are not "realistically achievable" due to the assumed levels of DSM or undesirable retention of Montrose Unit 1 by KCPL. See Executive Summary, p. 25, GMO: Plan Ranking, GMO Stakeholder Presentation of July 2012. Thus, the plans that ranked from fifth to eight by NPVRR are actually the top four feasible plans.

One of these top four feasible alternative resource plans studied by GMO, Plan ACCG7, includes an acquisition of a majority ownership share in the Dogwood Energy Facility. This plan was ranked 8th overall by GMO. See GMO: Plan Ranking. The following Table 1 shows some pertinent details of GMO's 5th through 8th ranked plans. Notably, aside from combined cycle (CC) and/or combustion turbine (CT) capacity additions, these plans all contain the same amount of wind, solar and other capacity additions, retirements, as well as pre-existing capacity.

Table 1

Plan	Description	Rank	NPVRR ($mm)	Delta ($mm)	Added CT/CC Capacity
ACCG9	Preferred Plan based on Combined Company	5	$12,485	$0	450 MW
AICG9	Biomass Plan based on Combined Company	6	$12,597	$112	450 MW
ACCG1	CT Plan – Preferred GMO Only Plan	7	$12,627	$142	462 MW
ACCG7	Dogwood Plan – GMO Only	8	$12,671	$186	610 MW

Several items are worth noting in Table 1. First, the NPVRR of the Dogwood Plan, ACCG7, as evaluated by GMO is approximately $186 million higher than the NPVRR of the Preferred Plan, ACCG9 - or only about 1.5% of total NPVRR - which means all four of these plans are in close contention from an IRP evaluation perspective. Second, excess capacity is a major contributor to the additional cost of the Dogwood Plan, because as shown in Table 1 that plan includes an additional 160 MW of capacity in comparison to GMO's Preferred Plan. Third, both the 5th and 6th ranked plans are combined company plans, which makes the 7th and 8th ranked plans actually the first and second place GMO-only plans that GMO considers feasible, with only a $44 million difference in NPVRR between them. Despite the obvious potential of the Dogwood Plan from a GMO-only perspective, it was not studied on a combined company basis in GMO's IRP. See GMO Response to Dogwood Data Request 7, attached hereto.

The details of the combined cycle (CC) and combustion turbine (CT) capacity additions that differentiate the 5th through 8th ranked plans are shown in Table 2 below:

Table 2

Plan	Added CT/CC Capacity	Capacity Additions
ACCG9	450 MW	300 MW CC in 2021; 150 MW CC in 2028
AICG9	450 MW	300 MW CC in 2021; 150 MW CC in 2028
ACCG1	462 MW	154 MW CT in 2014; 154 MW CT in 2021; 154 MW CT in 2028
ACCG7	610 MW	310 MW CC in 2013; 300 MW CC in 2028

As shown in Table 2, the first two plans, ACCG9 and AICG9 include identical additions with 300 MW of CC capacity in 2021 and then another 150 MW of CC capacity in 2028. The 2028 CC addition is GMO's share of a larger CC facility that would be built and owned on a joint basis by GMO and KCPL. In contrast, as shown in Table 2 for the GMO-only plans, ACCG1 and ACCG7, capacity additions start in 2014 with 154 MW of CT capacity in the ACCG1 plan and in 2013 with 310 MW of CC capacity from Dogwood. Finally, Table 2 makes it clear that the excess capacity included in the Dogwood Plan is based on either an excessive construction of CC capacity in 2028 versus the combined-company ACCG9 and AICG9 plans or an excessive acquisition of Dogwood CC capacity in 2013 versus the 154 MW added in 2014 in the ACCG1 plan. Either way, the Dogwood Plan includes 160 MW more than the other three top feasible plans in capacity additions.

IV. Deficiencies in GMO's IRP Submittal

GMO's failure to analyze its leading stand-alone and combined company plans on a reasonable, comparable basis results in significant deficiencies in GMO's IRP submittal. In particular, there are several remedies for the excessive 160 MW included in the Dogwood Plan, which could be used separately or in combination to achieve a reasonable, fair comparison between the leading plans in GMO's IRP submittal.

1. Elimination of Improper Bias Precluding Consideration of Acquisition of Minority Interest in the Dogwood Plant.

GMO's IRP is deficient because it improperly establishes a bias against the Dogwood plant as a potential supply-side resource by precluding consideration of the possibility of acquiring a minority interest in the plant. This bias artificially drives up the NPVRR of the one alternative plan (ACCG7) that includes Dogwood as a resource because it forces the plan to include an excess of 160 MW of generation capacity as compared to GMO's Preferred Plan and the other top feasible plans.

GMO admitted this bias in response to discovery, stating "310 MW of the [Dogwood] unit was included as a resource addition due to the potential difficulties associated with being one of several minority owners in a combined cycle resource." See GMO Response to Dogwood Data Request 8, attached hereto.

GMO should not prejudge the ramifications of acquiring a minority interest in the Dogwood plant in the IRP process. In fact, with several minority owners already owning shares of the facility, the governance of the Dogwood plant is set up to favor minority owners.[1] But more importantly, at this planning stage Dogwood should not be excluded from

[1] The details of these arrangements are publicly available on file at FERC in an executed Participation Agreement.

full consideration as a resource option by artificial constraints imposed before the determination of the NPVRR of plans that include obtaining only needed capacity from it.

At a minimum, GMO should have studied alternative plans that included a minority interest in the Dogwood plant to meet its projected capacity needs, instead of solely looking at a larger interest with excess capacity and greater costs. By failing to do so, GMO does not fairly and adequately evaluate its supply-side resource options as required by the Commission's IRP rules, which expressly require consideration of partial ownership. See 4 CSR 240-22.040(1). Reducing GMO's acquisition of Dogwood capacity from 310 MW down to 150 MW would decrease the NPVRR of the Dogwood Plan by roughly $100 million due to changes in capital cost alone, putting it ahead of both the ACCG1 stand-alone plan and the AICG9 combined-company plan just by correcting for this one deficiency.

2. Elimination of Improper Assumptions Requiring Excessive Incremental Additions of Combined Cycle Capacity.

GMO's IRP is also deficient because it improperly assumes that new combined cycle generating capacity can only be acquired in minimum increments of 300 MW either by GMO alone or in combination with KCPL. As with the preceding deficiency, GMO places an artificial constraint at the beginning of the planning process which limits the alternatives that are developed for consideration. There is no basis for GMO's assumption that it could not acquire a partial interest in a plant other than by developing it with KCPL, at a time when KCPL has a corresponding capacity need. By assuming that it must add combined cycle capacity in a minimum increment of 300 MW when KCPL is not projected to be in a position to split development of such a plant, GMO drives up plan cost by unnecessarily including excess capacity. Again, GMO does not fairly and adequately evaluate its supply-side

resource options as required by the Commission's IRP rules. In fact, this restriction creates improper affiliate bias by effectively requiring GMO to partner only with KCPL in plant ownership rather than being open to partnership with other entities. Reducing the 2028 additional combined cycle capacity addition in the Dogwood Plan from 300 MW to 150 MW to match the ACCG9 and AICG9 combined company plan capacity additions in those same years would also result in a similar roughly $100 million decrease in the NPVRR of the Dogwood Plan as would the reduction in the acquisition of the Dogwood capacity referenced above.[2]

3. Elimination of False Assumptions about the Efficiency and Cost of the Dogwood Plant.

GMO's IRP is deficient because it artificially drives up the costs of acquiring an interest in the Dogwood plant by applying false assumptions as to the efficiency of the plant. GMO used generic capacity factors and heat rates in its analysis of combined cycle resources, rather than the specific and more efficient characteristics of the Dogwood plant. GMO admits in discovery responses that it used capacity factors of "simulated units" and "one and only heat rate" for all combined cycle resources. See GMO Responses to Dogwood Data Requests 1-6, attached hereto.[3]

Depending on projections of the cost of natural gas to fuel the Dogwood plant, these faulty assumptions overstate the annual costs of operating the plant by at least $2-3 million,

[2] Note that it appears that either the Dogwood capacity acquisition reduction of 160 MW or the 2028 combined cycle capacity reduction of 150 MW in the Dogwood Plan could be accomplished to eliminate the excessive capacity in the Dogwood Plan, but not both at the same time unless an additional 150 MW of capacity is added in roughly the 2021 time frame as shown in the ACCG1 plan with its three capacity additions of roughly 154 MW each.

[3] Dogwood remains unsure as to what GMO means by use of the phrase "one and only heat rate" in these discovery responses, but in any event it does not appear that GMO used an accurate heat rate for the Dogwood plant. The capacity factor for the Dogwood plant reflects the percentage of time it should be in use, and its heat rate reflects the efficiency with which it uses natural gas. Both characteristics demonstrate the efficiency of the plant and, therefore, its relative cost of operation.

resulting in NPVRR reductions of at least $20 - $30 million for the Dogwood Plan. As with the prior deficiencies, these faulty assumptions prevent GMO from complying with the Commission's rules.

4. Conduct a Robust Analysis of Retirement of Existing GMO Plants.

Despite the directives from the Commission identified above (see supra page 4) to consider retirement of the City of Clarksdale's Crossroads plant and GMO's coal-fired units, GMO failed to do so. The impacts of this failure are unknown. In conjunction with correcting the other deficiencies identified herein, GMO should also meet the Commission's directives concerning robust analysis of plant retirements so that the impacts can be identified and studied.

V. Correction of the Deficiencies in GMO's IRP Would Likely Make the Dogwood Plant a Preferred Resource Addition in 2013.

As discussed above, GMO selected the overall fifth place plan by NPVRR, and top-ranked feasible plan, labeled ACCG9, as the Preferred Plan. That plan is based on combined-company planning with KCPL. The top GMO-only plans, based on NPVRR, include the plan in which the Dogwood plant is a component, labeled ACCG7. As shown in Table 1 above, the difference between the Dogwood Plan and the Preferred Plan in terms of NPVRR over 20 years is only $186 million, which again is only 1.5% of total NPVRR.

Correction of the deficiencies identified in these Comments regarding GMO's inadequate consideration of the Dogwood plant would certainly elevate the Dogwood Plan to the status of the top feasible stand-alone plan and most likely to preferred status after a full comparable re-analysis of the Dogwood plant is performed on a combined company basis.

Because GMO improperly applied a bias against acquiring a minority interest in the Dogwood plant (Deficiency 1 above) and improperly assumed it could only acquire combined cycle capacity in a minimum increment of 300 MW (Deficiency 2 above), the Dogwood Plan (ACCG7) includes 160 MW in excess capacity as compared to other top feasible plans, as shown in Table 2 above.

If the Dogwood Plan (ACCG7) were revised to only include approximately 450 MW of capacity additions like the other top feasible plans, the NPVRR of the plan would be reduced by approximately $100 million based on changes in capital cost alone. Such a reduction could be accomplished either by GMO examining a minority interest in the Dogwood plant or by assuming a cooperative acquisition of capacity in 2028 with KCPL or another entity.

If GMO also used the actual characteristics of the Dogwood plant rather than generic factors (Deficiency 3 above) in its evaluation, the NPVRR of the Dogwood plan could be reduced by at least another $20-30 million in total.

These corrections would eliminate the difference in NPVRR between the Dogwood Plan and the other top feasible plans. Such an outcome would certainly warrant greater consideration of the Dogwood Plan. It would also warrant consideration of the Dogwood plant as a resource option on a combined-company basis. And it shows that the Dogwood plant should be considered anytime that GMO looks at the need for roughly 150 MW in capacity in its various other alternative plans, within the next few years that an ownership share in Dogwood might still be available. For example, yet another possible plan not studied by GMO could be a variation on plan ACCG1 that would include an addition of 150

MW of Dogwood capacity in 2013 rather than the first of three simple cycle turbines slated for construction in 2014 at 154 MW.

VI. Conclusion – The Commission Should Order GMO to Correct the Identified Deficiencies and Make a New IRP Submittal As Soon As Possible.

GMO's IRP submittal does not meet the purpose of the Commission's integrated resource planning rules. GMO imposes arbitrary biases and assumptions regarding the Dogwood plant and thereby artificially excludes this unique resource alternative from consideration. In doing so, GMO fails to use minimization of NPVRR as the primary selection criteria, fails to adequately evaluate full and partial ownership of supply-side resource options, and fails to address concerns raised about its prior IRP submittals. Thus, GMO has violated the Commission's IRP rules and its prior orders. Further, GMO does not develop a sound plan to protect and serve the public interest.

Dogwood raised similar concerns about GMO's last triennial IRP submittal and the Commission expressly ordered GMO to address these items this time around See Report and Order, File No. EE-2009-0237. Both Dogwood and the public are harmed by GMO's failure to do so. GMO is a monopoly utility and Dogwood is the only independent power producer in its territory. This unique relationship requires Commission oversight. Because this is the second time that GMO has submitted deficient planning materials in a triennial filing, it is not appropriate to wait another three years for it to resolve these issues. In order to assure protection of the public interest, the Commission should require GMO to correct the deficiencies in its IRP submittal and develop new materials that fully and fairly consider the Dogwood plant as a supply-side resource option. Since time is of the essence, the Commission should direct GMO to make this new IRP submittal as soon as possible. Both

of the top GMO-only plans include resource additions within the next year or two, neither of which are likely to be feasible if any significant delay occurs in submitting a new IRP filing.

Respectfully submitted,

CURTIS, HEINZ,
GARRETT & O'KEEFE, P.C.

/s/ Carl J. Lumley

Carl J. Lumley, #32869
130 S. Bemiston, Suite 200
Clayton, Missouri 63105
(314) 725-8788
(314) 725-8789 (Fax)
clumley@lawfirmemail.com

Attorneys for Dogwood Energy, LLC

CERTIFICATE OF SERVICE

A true and correct copy of the foregoing was emailed, faxed or mailed by U.S. Mail, postage paid, this 6th day of September, 2012, to the persons shown on the attached list.

/s/ Carl J. Lumley

Missouri Public Service Commission

Service List for Case No. **EO-2012-0324** Last Updated: **8/31/2012**

Missouri Public Service Commission
Steve Dottheim
200 Madison Street, Suite 800
P.O. Box 360
Jefferson City, MO 65102
Steve.Dottheim@psc.mo.gov

Missouri Public Service Commission
Office General Counsel
200 Madison Street, Suite 800
P.O. Box 360
Jefferson City, MO 65102
Phone: 573-751-2690
Fax: 573-751-9285
GenCounsel@psc.mo.gov

Office of the Public Counsel
Lewis Mills
200 Madison Street, Suite 650
P.O. Box 2230
Jefferson City, MO 65102
Phone: 573-751-1304
Fax: 573-751-5562
opcservice@ded.mo.gov

City of Kansas City, Missouri
Mark W Comley
601 Monroe Street., Suite 301
Jefferson City, MO 65102-0537
Phone: 573-634-2266-Ext: 301
Fax: 573-636-3306
comleym@ncrpc.com

Dogwood Energy, LLC
Carl J Lumley
130 S. Bemiston, Ste 200
St. Louis, MO 63105
Phone: 314-725-8788-Ext:
Fax: 314-725-8789
clumley@lawfirmemail.com

KCP&L Greater Missouri Operations Company
James M Fischer
101 Madison Street, Suite 400
Jefferson City, MO 65101
Phone: 573-636-6758-Ext:
Fax: 573-636-0383
jfischerpc@aol.com

KCP&L Greater Missouri Operations Company
Roger W Steiner
1200 Main Street, 16th Floor
P.O. Box 418679
Kansas City, MO 64105-9679
Phone: 816-556-2314-Ext:
Fax: 816-556-2787
roger.steiner@kcpl.com

Midwest Energy Consumers Group
David Woodsmall
807 Winston Court
Jefferson City, MO 65101
Phone: 573-797-0005-Ext:
Fax: 573-635-7523
david.woodsmall@woodsmalllaw.com

Midwest Energy Users' Association
Stuart Conrad
3100 Broadway, Suite 1209
Kansas City, MO 64111
Phone: 816-753-1122-Ext:
Fax: 816-756-0373
stucon@fcplaw.com

Missouri Department of Natural Resources
Jessica L Blome
221 W. High Street
P.O. Box 899
Jefferson City, MO 65102
Phone: 573-751-3640-Ext:
Fax: 573-751-8796
Jessica.Blome@ago.mo.gov

Missouri Gas Energy
Dean L Cooper
312 East Capitol
P.O. Box 456
Jefferson City, MO 65102
Phone: 573-635-7166-Ext:
Fax: 573-635-3847
dcooper@brydonlaw.com

Missouri Gas Energy
Todd J Jacobs
3420 Broadway
Kansas City, MO 64111
Phone: 816-360-5976-Ext:
Fax: 816-360-5903
todd.jacobs@sug.com

Missouri Gas Energy
Michael R Noack
3420 Broadway
Kansas City, MO 64111
Phone: 816-360-5560-Ext:
Fax: 816-360-5536
mike.noack@sug.com

Missouri Joint Municipal Electric Utility Commission
Douglas Healy
939 Boonville Suite A
Springfield, MO 65802
Phone: 417-864-8800-Ext:
Fax: nul-l -
doug@healylawoffices.com

GMO:
Plan Ranking – 20-Year NPVRR (Expected Value)

PLAN	NPVRR ($ Millions)	DELTA	Rank (L-H)	Plan Description	Resource Addition	DSM Level
ECCG1	12,220	-	1	Retire S1, S2 by Jan 2017	CT	Very Aggressive
DCCG1	12,229	8	2	Retire S1, S2 by Jan 2017	CT	Aggressive
ACCG8	12,434	213	3	Retire S1, S2 by Jan 2017 Based on Combined Co., only if M1 retained by KCP&L	CC	MEEIA
FCCG1	12,467	247	4	Retire S1, S2 by Jan 2017	CT	Stip and Agreement*
ACCG9	12,485	265	5	Retire S1, S2 by Jan 2017, based on Combined Co. - Preferred Plan	CC	MEEIA
AICG9	12,597	376	6	Retire S1, S2 by Jan 2017, S3 Biomass Usage	CC	MEEIA
ACCG1	12,627	407	7	Retire S1, S2 by Jan 2017	CT	MEEIA
ACCG7	12,671	450	8	Retire S1, S2 by Jan 2017	Dogwood & CC	MEEIA
AAAG1	12,673	452	9	No Retirements	CT	MEEIA
ACCG4	12,678	457	10	Retire S1, S2 by Jan 2017	Coal	MEEIA
AFCG1	12,680	460	11	Ret S1, S2, LR4 to NG by Jan 2017	CT	MEEIA
AECG1	12,695	474	12	Ret LR4, S1, S2 by Jan 2017	CT	MEEIA
ACCG3	12,702	481	13	Retire S1, S2 by Jan 2017	CC	MEEIA
ACCG6	12,703	482	14	Retire S1, S2 by Jan 2017	Dbl Wind & CT	MEEIA
ABCG1	12,706	486	15	Retire LR4 by Jan 2017	CT	MEEIA
BCCG1	12,716	495	16	Retire S1, S2 by Jan 2017	CT	MEEIA EE only
AAAG3	12,790	570	17	No Retirements	CC	MEEIA
ACCG5	12,927	707	18	Retire S1, S2 by Jan 2017	Nuclear	MEEIA
ADCG1	12,979	758	19	Ret S1, S2, S3 by Jan 2017	CT	MEEIA
CCCG1	13,133	913	20	Retire S1, S2 by Jan 2017	CT	MEEIA DR Only
XCCG1	13,164	944	21	Retire S1, S2 by Jan 2017	CT	Persistence Only

* Non-Unanimous Stipulation and Agreement, Case EE-2009-0237, MDNR Deficiency #1

KCP&L energizing life

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :1

Identify the capacity factor(s) used in GMO's consideration of the Dogwood plant as a supply side option in the IRP analysis submitted in this proceeding, explain the source and/or basis for using such factor(s), and if more than one factor was used also explain how each different factor was used and the basis for using it for such purpose(s).

RESPONSE: (do not edit or delete this line or anything above this)

GMO IRP Appendix 4l provides all modeling assumptions related to the Dogwood Combined Cycle plant. The capacity factor shown in Appendix was based upon data obtained from Electric Power Research Institute (EPRI) Technical Assessment Guide (TAG), Dec, 2010, Exhibit 4-7. It should be noted that Capacity factor is not an input to the Midas© model. Because Midas is a unit dispatch production cost model, each simulated asset in the production portfolio is dispatched due to its production price relative to market prices and production costs of other alternatives in the simulation. Therefore the capacity factor of a particular simulated unit would vary with the output of each analyzed scenario.

Attachment: Q1 GMO Verification.pdf

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :2

Identify the capacity factor(s) used in GMO's consideration of other combined cycle plants besides the Dogwood plant as supply side options in the IRP analysis submitted in this proceeding, explain the source and/or basis for using such factor(s), and if more than one factor was used also explain how each different factor was used and the basis for using it for such purpose(s).

RESPONSE: (do not edit or delete this line or anything above this)
GMO IRP Appendix 4I provides all modeling assumptions related to a new construction Combined Cycle plant. The capacity factor shown in Appendix was based upon data obtained from Electric Power Research Institute (EPRI) Technical Assessment Guide (TAG), Dec, 2010, Exhibit 4-7. It should be noted that Capacity factor is not an input to the Midas© model. Because Midas is a unit dispatch production cost model, each simulated asset in the production portfolio is dispatched due to its production price relative to market prices and production costs of other alternatives in the simulation. Therefore the capacity factor of a particular simulated unit would vary with the output of each analyzed scenario.

Attachment: Q2 GMO Verification.pdf

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :3

Identify the heat rate(s) used in GMO's consideration of the Dogwood plant as a supply side option in the IRP analysis submitted in this proceeding, explain the source and/or basis for using such heat rate(s), and if more than one heat rate was used also explain how each different heat rate was used and the basis for using it for such purpose(s).

RESPONSE: (do not edit or delete this line or anything above this)
GMO IRP Appendix 4I provides all modeling assumptions related to the Dogwood Combined Cycle plant. The one and only heat rate utilized in the IRP analysis was based upon information available from engineering firms that use the Thermoflow, Inc. PEACE/GT Pro thermal engineering software adjusted for age.

Attachment: Q3 GMO Verification.pdf

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :4

Identify the heat rate(s) used in GMO's consideration of other combined cycle plants besides the Dogwood plant as supply side options in the IRP analysis submitted in this proceeding, explain the source and/or basis for using such heat rate(s), and if more than one heat rate was used also explain how each different heat rate was used and the basis for using it for such purpose(s).

RESPONSE: (do not edit or delete this line or anything above this)
GMO IRP Appendix 4I provides all modeling assumptions related to a new construction Combined Cycle plant. Heat Rate: 7400 Btu/kWh. The one and only heat rate used in the IRP analysis was based upon information available from engineering firms that use the Thermoflow, Inc. PEACE/GT Pro thermal engineering software.

Attachment: Q4 GMO Verification.pdf

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :5

Does the IRP analysis submitted in this proceeding use different capacity factors for gas-fired intermediate generating units, depending on the projected or assumed price of natural gas? If yes, identify the relationship between such capacity factors and gas prices and indicate where such information is set forth in the materials submitted to the Commission in this proceeding and/or the supporting workpapers provided to the parties. If not, why not?

RESPONSE: (do not edit or delete this line or anything above this)
Capacity factor is not an input to the Midas© model. Because Midas is a unit dispatch production cost model, each simulated asset in the production portfolio is dispatched due to its production price relative to market prices and production costs of other alternatives in the simulation. Therefore the capacity factor of a particular simulated unit would vary with the output of each analyzed scenario.

Attachment: Q5 GMO Verification.pdf

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :6

Does the IRP analysis submitted in this proceeding use different capacity factors for gas-fired intermediate generating units, depending on the projected or assumed price of coal? If yes, identify the relationship between such capacity factors and coal prices and indicate where such information is set forth in the materials submitted to the Commission in this proceeding and/or the supporting work papers provided to the parties. If not, why not?

RESPONSE: (do not edit or delete this line or anything above this)
Capacity factor is not an input to the Midas© model. Because Midas is a unit dispatch production cost model, each simulated asset in the production portfolio is dispatched due to its production price relative to market prices and production costs of other alternatives in the simulation. Therefore the capacity factor of a particular simulated unit would vary with the output of each analyzed scenario.

Attachment: Q6 GMO Verification.pdf

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :7

Was the Dogwood unit included as a resource addition in any of the combined company resource plans? If yes, indicate how it was included and where such information is set forth in the materials submitted to the Commission in this proceeding and/or the supporting workpapers provided to the parties. If not, why not?

RESPONSE: (do not edit or delete this line or anything above this)
No, the Dogwood unit was not included as a resource option addition in the combined–company resource plans. The reason it was not analyzed as a resource option in the set of combined-company plans was because the GMO plan, ACCG7, that included Dogwood ranked 8th out of 21 plans with respect to the NPVRR. This identical reasoning is why new coal, new nuclear, or double-wind additions were not analyzed in combined-company resource plans.

Attachment: Q7 GMO Verification.pdf

Company Name: KCPL GMO
Case Description: GMO Integrated Resource Plan (IRP)
Case: EO-2012-0324

Response to Lumley Carl Interrogatories – Set Dogwood_20120803
Date of Response: 08/16/2012

Question No. :8

In its IRP analysis submitted in this proceeding, did GMO use the 200MW of available capacity that Dogwood described in its response to an RFP in 2011? If not, what amount of capacity from Dogwood did GMO use in its analysis and what was the basis for its use of a different amount?

RESPONSE: (do not edit or delete this line or anything above this)
Plan ACCG7 which included Dogwood as a resource addition is shown in Volume 6, Table 19 on Page 22. 310 MW of the unit was included as the resource addition due to the potential difficulties associated with being one of several minority owners in a combined cycle resource.

Attachment: Q8 GMO Verification.pdf