BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

In the Matter of the 2008 Resource)	
Plan of Kansas City Power & Light)	Case No. EE-2008-0034
Pursuant to 4 CSR 240-22.)	

DOGWOOD ENERGY, LLC'S COMMENTS

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's IRP compliance submission. In accordance with Rule 22.080(6), based upon limited review, Dogwood has identified deficiencies of KCP&L's submittal which should be further addressed by KCP&L, the other parties, and the Commission, as stated herein:

- 1. KCP&L submitted its IRP compliance materials on August 5, 2008. As the Commission stated in its order accepting KCP&L's 2006 submittal, "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). Planning well for a reliable supply of energy protects and serves the public interest. 1
- 2. According to its submittal, KCP&L plans to satisfy its capacity needs for the next twenty years primarily with wind energy and demand side management. KCPL states that its preferred plan is comprised of: (a) existing and future DSM and EE programs, (b) 400 MW

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¹ As indicated in Dogwood's intervention, it does not appear that the Commission has issued notice of KCP&L's submittal as required by 4 CSR 240-22.080(4).

of wind capacity, and (c) 154 MW of combustion turbines in 2029. (Vol. 1, p. 24, Vol. 7, p. 17-18, Vol. 1-S, p. 8). Particularly given ever-escalating construction costs for fossil-fuel-fired generating facilities, effective DSM / EE programs can be of significant value to a utility's customers. And while the construction costs of wind generation facilities have – like fossil fuel facilities - also been moving upward significantly, promotion of local, wind-based energy supplies is an important national goal for both environmental reasons and national energy independence. Hence, KCP&L proposes a bold, environmentally-sensitive plan.

- 3. However, because wind generation facilities are not as controllable as fossil fuel facilities (due to the intermittent and uncontrollable nature of wind), and because actual capacity requirements may be higher than KCP&L currently assumes, KCP&L's plan also requires substantial risk mitigation procedures and monitoring by the Staff and stakeholders to provide greater assurance that KCPL will maintain adequate capacity reserves. Currently, however, KCP&L does not propose any such monitoring.²
- 4. Wind-based generation resources effectively provide on-peak firm capacity value that is typically equal to only 5% to 20% of total output³. KCP&L shows wind resources accredited at 15%. (Vol. 1-S, p. 18). Further, KCP&L's preferred plan necessarily relies less on wind resources⁴ and much more on the penetration and cost-effectiveness of its proposed DSM / EE programs to reliably supply its customers' firm capacity needs for the next twenty years.

² <u>See</u> KCP&L Response to Dogwood Data Request 13, attached hereto.

This is primarily due to low correlation between peak electricity needs and wind availability. SPP's Generation Working Group produced a white paper in 2004 that evaluated this issue in some detail, along with a review of accreditation methods used in various regions of the United States. See SPP Wind Power Capacity Accreditation White Paper, Sept 2004, attached hereto.

⁴ KCP&L also identifies a number of contingencies regarding its planned wind resources. (Vol. 1-S, p. 28-30).

- 5. But even with such greater reliance on DSM / EE programs, significant risks remain, because: (a) KCP&L's actual capacity requirements may be larger than indicated in its plan, and (b) DSM / EE programs may not be sufficient to meet those higher actual capacity requirements. If KCP&L's actual capacity requirements prove to be greater than it forecasts and/or proposed DSM / EE programs were to fall short, KCP&L would have to supplement capacity by purchased power arrangements. Accordingly, planning for such purchase power arrangements will be a critical aspect of mitigating such risks. But KCP&L currently has no formal plan regarding procurement of purchased power.
- 6. KCP&L strives to demonstrate the adequacy of its plan by comparing its base case load forecast to existing capacity, relative to the Southwest Power Pool's (SPP's) generation reliability standards which currently call for a capacity margin of 12%. (Vol. 1-S, p. 6-7). Yet, it is most likely that the SPP region's reserve margin will not be able to remain as low as the assumed level of 12%. Wind power is intermittent and must be backed up by conventional generation. To reliably accommodate the additional wind-based generation resources being constructed in the region, including those proposed by KCP&L, SPP will very likely find it necessary to increase its capacity margin. KCP&L reports that its IRP does not currently address this risk.⁷
- 7. In other regions, capacity requirements have already been reexamined in light of uncertainties injected by increasing use of wind resources. For example, the Electric Reliability Council of Texas (ERCOT) recently implemented a new reserve capacity protocol based on regional wind supply parameters, rather than the capacity of the largest generating

⁵ KCP&L already acknowledges the uncertainty of stakeholder buy-in, which it classifies as a critical component of the projected success of its programs. (Vol. 1-S, p. 13,, 60).

⁶ See KCP&L Response to Dogwood Data Request 14, attached hereto.

⁷ See KCP&L Response to Dogwood Data Requests 4-8, attached hereto.

units in the region. By means of this change, ERCOT expressly seeks to avoid load curtailments resulting from sudden drops in wind generation, such as an event that occurred during February 2008.⁸ Similarly, the New York State Reliability Council (NYSRC) has announced that it is increasing its installed reserve margin ("IRM") from 15% to 16.5% for the 2009 to 2010 capability year beginning on May 1. The addition of 825 MW new wind generation capacity contributed to this IRM increase by NYSRC, because of the very low capacity factor of wind facilities during the summer peak period.⁹

- 8. While KCP&L's IRP does not address the risk, it is actually highly likely that SPP will need to follow the lead of ERCOT, NYSRC and others by increasing reserve margins in the next few years. In fact, as part of its prudent planning procedures, SPP has created a Wind Integration Task Force stakeholder group of which a KCP&L transmission engineer is a voting member for the purpose of evaluating regional wind generation issues, including impacts on the regional electric grid's operations, such as the need for additional regulation and generating reserves.¹⁰
- 9. If SPP does increase reserve margins soon, as others have already done, KCP&L's capacity requirements could quickly increase over a short period of time. As stated above, the proposed DSM / EE programs may not be sufficient in the event of such an increase in capacity requirements and purchase power arrangements may be required. This risk is not addressed in the supply adequacy component of KCP&L's plan. Moreover, it appears that

⁸ See MegaWatt Daily, Oct. 24, 2008, p. 7, attached hereto.

⁹ See MegaWatt Daily, Dec. 11, 2008, p. 8, attached hereto. See also New York Control Area Installed Capacity Requirements for the Period May 2009 Through April 2010, Technical Study Report, Dec. 5, 2008, copy attached.

¹⁰ <u>See</u> SPP Wind Integration Task Force materials, attached hereto.

KCP&L's load forecasts are too low.¹¹ And the risks of insufficient capacity are of course even greater in the high load forecast scenario than in the base load forecast.¹²

- 10. As part of its contingency planning, KCPL outlines four key initiatives to provide risk mitigation against significant uncertainties. (Vol. 1, pgs 31-32).¹³ One of these initiatives provides for preparations to construct nuclear capacity as early as 10-15 years in the future. However, none of these initiatives prepare KCPL to rapidly respond to a lack of capacity that would result from a lack of adequate penetration or cost-effectiveness of its DSM and EE programs. There is substantial risk that these programs may be stressed in the future beyond the sensitivities considered in KCP&L's plan, including by an increase in SPP reserve capacity margin requirements that is most likely going to occur. Supplementary power arrangements would then be essential. Prior planning for such arrangements should be part of KCP&L's contingency plans.
- 11. For these reasons, Dogwood believes that additional risk mitigation procedures and monitoring by the Staff and stakeholders are required to provide greater assurance that KCP&L will maintain adequate firm capacity reserves on an annual or seasonal basis.
- 12. KCP&L should include in its IRP a commitment to develop short-term, annual and peak season capacity supply assessment and procurement plans that will better enable KCP&L to meet reliability standards regarding adequate capacity requirements.

Dogwood's consultants ICF opine that the KCP&L demand forecasts are too low. <u>See ICF</u> Comments on KCP&L 2008 IRP, attached hereto (Highly Confidential and Public Versions). <u>ICF</u> also expresses concerns about the absence of planning for replacement capacity for older plant, the accuracy of assumed capital costs for new gas-fired combined cycle construction, and the accuracy of natural gas price assumptions.

¹² KCP&L reports a 50% likelihood that load will be higher than the base forecast. <u>See</u> KCP&L Response to Dogwood Data Request 9, attached hereto.

 $^{^{13}}$ KCP&L reports that it has not identified any other mitigation measures. See KCP&L Response to Dogwood Data Request 11, attached hereto.

- 13. KCP&L acknowledges that its IRP plan may have to be modified in the future to procure additional purchased power if its customers' energy needs are not met due to variables, such as load, not performing as anticipated in the base case scenarios. ¹⁴ (Vol. 7, pg 58)
- 14. But rather than waiting until there is a problem, in order to mitigate the risk of underperformance of its DSM and EE programs, KCPL should institute a short-term, annual capacity supply assessment and procurement plan that is monitored by the Staff and reviewed and commented upon by stakeholders. This process would determine whether any shortfall in the DSM and EE programs for the next year is likely, and if so, would require KCPL to solicit by RFP for the procurement of adequate capacity to meet such shortfall.
- 15. KCP&L and the other parties should work together in accordance with Rule 22.080 to develop a joint agreement to remedy the foregoing deficiencies in KCP&L's IRP submittal, as well as other deficiencies that may be identified by Staff and other parties.

WHEREFORE, Dogwood respectfully submits these comments and makes its representatives available to work with KCP&L and the other parties pursuant to Rule 22.080 to develop a joint agreement to remedy the foregoing deficiencies in KCP&L's IRP submittal, as well as other deficiencies that may be identified by Staff and other parties, and otherwise assist in the satisfactory resolution of this proceeding.

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¹⁴ As noted in the attached report from ICF, it also appears that KCP&L needs to take into account the developments regarding the SPP EIS market in its planning.

Respectfully submitted,

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

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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 8th day of January, 2009, to the persons shown on the attached list.

/s/ Carl J. Lumley

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