BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light	)	
Company's Request for Authority to Implement	)	File No. ER-2012-0174
A General Rate Increase for Electric Service	)	

BRIEF OF SIERRA CLUB

Sierra Club urges the Commission to find that KCP&L has an ongoing obligation to conduct prudent planning of any investments in retrofitting the La Cygne or Montrose Generating Stations, even after construction begins. The La Cygne and Montrose investments warrant scrutiny, especially in light of significantly changed conditions in natural gas prices and energy markets in the last one to two years. As KCP&L's own modeling has shown, the economics of any decision to invest in retrofitting these aging coal units instead of retiring them is highly sensitive to natural gas price forecasts, load projections, and other factors, all of which must be reevaluated frequently to determine whether it is prudent to proceed with the projects. The Commission should indicate in this proceeding that it intends to take a close look at the prudence of KCP&L emission control investments and begin to define what it will require to make an appropriately informed decision about prudence and rate recovery in the eventual rate case proceeding in which the Company will presumably request inclusion of these more than one billion dollar investments in its rates. This would assist the Company and interested stakeholders in ensuring that KCP&L does not create a situation where either ratepayers or company shareholders would be unnecessarily at risk for uneconomic investments in aging coal units.

PROPOSED FINDINGS OF FACT

Issue 9: Resource Planning – LaCygne and Montrose

Coal Unit Retirements Generally

1. A utility would (and should) choose to retire any unit when it is prudent to do so – that is,

when a careful and thorough analysis determines that the net present value of revenue requirements associated with keeping the unit operating exceeds the net present value of revenue requirements associated with retiring the unit. (Direct Testimony of Bruce E. Biewald, Dkt. No. 121 (Aug. 2, 2012) [hereinafter "Biewald Direct"], at p. 6, lines 21-24.)

2. The energy and capacity to replace a retiring generating unit can include additional generation from existing power plants, new capacity (typically natural gas, renewable resources, energy efficiency, and demand response), long-term and short-term market purchases, or portfolios that combine these resource types. (Biewald Direct at p. 6, lines 24-26, & p. 7, lines 1-2.)
3. The costs associated with keeping a generating unit open include, but are not limited to, fixed and variable operating costs, fuel costs, and capital investments necessary to keep the plant operating reliably or to comply with environmental or other regulations. (Biewald Direct at p. 7, lines 3-5.)
4. The costs associated with retiring the unit include those associated with maintaining safe and reliable service once the unit has been taken offline, including any necessary additional energy, capacity, or ancillary services. (Biewald Direct at p. 7, lines 5-8.)
5. Coal unit retirements are a common occurrence. (Biewald Direct at p. 7, line 10.)
6. As of July 31, 2012, at least 185 non-cogenerating coal units totaling over 31,000 MW of capacity had been announced for retirement by 2020. (Biewald Direct at p. 7, lines 10-11, & p. 8, Figure 1.)
7. Utilities' decisions to retire existing coal-fired generating capacity are being made based on economics. A combination of factors is causing the economic value of continued

operation to be negative. These factors include the investments required to comply with environmental regulations, the risks of further regulations, aging and degradation of plant equipment, declining market prices for natural gas and wholesale electricity, and an increasingly broad and attractive range of alternative resources including renewable energy and energy efficiency. (Biewald Direct at p. 7, lines 14-20.)

8. Substantial additional coal unit retirement announcements are likely, in particular between now and 2016, due to the retrofit capital costs needed to comply with Mercury Air Toxics Standards ("MATS") and the Clean Air Interstate Rule ("CAIR"). (Biewald Direct at p. 7, lines 12, 22-25.)

La Cygne

9. There are two coal-fired generating units operating at the La Cygne Generating Station. KCP&L shares ownership of the units 50/50 with Westar. KCP&L is the operator of both units. Unit 1 began commercial operations in 1973 and has a net capacity of 735 MW. Unit 2 began commercial operations in 1977 and has a net capacity of 686 MW. (Direct Testimony of Terry D. Basham, Dkt. No. 13 (Feb. 27, 2012) [hereinafter "Basham Direct"], at p. 11, lines 19-23, & p. 12, lines 1-4.)

10. KCP&L is in the process of making a significant investment in environmental controls at the La Cygne Generating Station that are currently estimated to cost $1.23 billion. (Direct Testimony of Burton L. Crawford, Dkt. No. 22 (Feb. 27, 2012) [hereinafter "Crawford Direct"], at p. 19, lines 9-10, 23.) The final cost of this investment will be split 50/50 between KCP&L and Westar. (Crawford Direct at p. 19, lines 23-24.)

11. KCP&L is investing in these environmental controls to comply with an agreement with the Kansas Department of Health and Environment to reduce visibility-impairing

emissions by installing Best Available Retrofit Technology at La Cygne Units 1 and 2, among other environmental requirements. (Basham Direct at p. 12, lines 7-16; Crawford Direct at p. 19, lines 21-22.)

12. On February 23, 2011, KCP&L filed in Kansas for predetermination by the Kansas Corporation Commission ("KCC") to recover costs related to the La Cygne retrofits. (Biewald Direct at p. 8, lines 3-6.) KCC approved predetermination on August 19, 2011. (Basham Direct at p. 13, lines 21-22; Biewald Direct at p. 8, lines 6-7.)

13. KCP&L entered into an Engineer, Procure, and Construct contract with La Cygne Environmental Partners on August 26, 2011 for the La Cygne retrofits and has begun investing in the project. (Basham Direct at p. 13, lines 20-23, & p. 14, lines 1-5, 11-14; Biewald Direct at p. 8, line 7, & p. 9, lines 1-5.)

14. If the La Cygne retrofits are completed on schedule, the retrofitted La Cygne Generating Station is expected to go into service by June 2015. (Biewald Direct at p. 9, lines 4-5.)

15. In its February 2011 filings in the Kansas predetermination proceeding, KCP&L estimated the net benefits of retrofitting La Cygne to be $204.8 million. (Biewald Direct at p. 9, lines 8-18 & Schedule BEB-2.)

16. Since KCP&L submitted this analysis to the KCC in February 2011, gas prices have continued to drop. (Biewald Direct at p. 9, lines 20-21.)

17. Spot prices for natural gas at Henry Hub started 2011 at about $4.50/MMBtu, and declined during that calendar year to about $3 per MMBtu at the end of 2011. During 2012, spot gas prices dipped to a low of below $2/MMBtu in the spring and then rose back to about $3/MMBtu. (Biewald Direct at p. 9, lines 21-24, & p. 10, Figure 2.)

18. Since February 2011, many of the sources that KCP&L relied upon for the natural gas price forecasts that it used in evaluating the economics of the La Cygne retrofits have revised their forecasted prices downward. (Biewald Direct at p. 9, lines 25-27.) These firms are projecting that recent increases in gas supplies due to a boom in production of shale gas – and resulting lower prices – are here to stay. (Biewald Direct at p. 12, lines 11-13.)

19. The U.S. Energy Information Administration ("EIA"), whose natural gas price forecasts are relied upon by KCP&L, has revised its forward-looking gas price forecasts downward in each of the last four releases of its Annual Energy Outlook ("AEO"). For example, in the AEO 2012, EIA's projected 2020 Henry Hub spot price was $4.58/MMBtu, which is $0.53/MMBtu less than the corresponding price in the AEO 2011. (Biewald Direct at p. 9, lines 27-28, p. 10, lines 1-5, & p. 11, Figure 3.)

20. Forecasts changed rapidly in 2011 alone, as demonstrated by Consumer Energy's filing with the Michigan Public Service Commission, which shows NYMEX natural gas forwards declining substantially each month between July 2011 and December 2011. (Biewald Direct at p. 11, lines 3-6, & Schedule BEB-4.)

21. Cambridge Energy Research Associates ("CERA"), another firm whose natural gas price forecasts are relied upon by KCP&L, recently found that, as a result of the significant changes in the last one to two years to the natural gas and energy markets due to a boom in the production of shale gas, "[g]oing forward, . . . CERA forecasts natural gas prices at roughly half what they would have been without the shale production boom." (Biewald Direct at p. 11, lines 7-14.)

22. IHS Global Insight, another firm whose analysis is relied upon by KCP&L, has also revised its natural gas price forecasts downward due to the shale production boom, and it has found that a historically very low average natural gas price was likely to continue at least as far out as 2035. In a report released in October 2011, IHS Global Insight stated that "[t]he natural gas Shale Gale has transformed the US energy outlook in just three years, opening new possibilities for the future of energy in the United States, creating jobs, stimulating economic growth, and lowering gas prices. Between 2000 and 2008, the natural gas price at Henry Hub averaged $6.73 per MMBtu in constant 2010 dollars. But as shale production started to ramp up in significant volumes in 2009 and 2010, the price dropped to an average of $4.17 per MMBtu (constant 2010 dollars). By October 2011, it had declined further to $3.50 per MMBtu (constant 2010 dollars). From 2011 through 2035, IHS Global Insight projects that the price will average $4.79 MMBtu (constant 2010 dollars)." (Biewald Direct at p. 11, lines 15-16, & p. 12, lines 1-15.)

23. Lower natural gas price forecasts than those relied upon by KCP&L in evaluating the economics of the La Cygne retrofit will tend to result in lower prices for electricity in the regional power market and in lower costs for replacing the energy that would otherwise be generated at La Cygne. (Biewald Direct at p. 12, lines 18-20.)

24. As the Commission recently recognized, "if all other factors are held constant, lower natural gas prices would tend to result in lower electric power prices, which would diminish the value of continuing to operate" coal generating units. *In re Union Electric Company's 2011 Utility Resource Filing*, File No. EO-2011-0271, Report and Order (Mar. 28, 2012), at 16.

25. The economic merits of spending on retrofits at La Cygne will be reduced due to declining off-system sales due to low natural gas prices. A substantial portion of the projected economic benefits from retrofitting La Cygne is in the form of projected benefits from off-system sales. (Biewald Direct at p. 13, lines 20-21, & p. 15, lines 12-14.) In his testimony at the evidentiary hearing in this case, KCP&L witness Burton L. Crawford agrees that "the economics of the retrofit are reduced when you have lower off-system sales." (Transcript of Proceedings: Evidentiary Hearing, Vol. 18, Dkt. No. 338 (Oct. 26, 2012) [hereinafter "Tr."], at 619.)

26. In KCP&L's testimony in this proceeding, KCP&L witnesses acknowledge that the company is already experiencing declines in its off-system sales due in part to low natural gas prices. KCP&L President Terry Basham testifies that "[c]hanges in the wholesale energy market, including a challenging economy and low natural gas prices, have significantly impacted KCP&L's ability to sell power outside its service territory." (Basham Direct at p. 7, lines 2-4.) KCP&L witness Darrin R. Ives testifies that, "[a]s a result of historically low natural gas prices and soft regional market demand for wholesale power, both of which are expected to continue over the coming years, the size of the credit for [off-system sales] margins available to offset retail rates is much smaller than previous cases." (Direct Testimony of Darrin R. Ives, Dkt. No. 14 (Feb. 27, 2011) [hereinafter "Ives Direct"], at p. 4, lines 16-19.)

27. KCP&L witnesses testify that these "historically low natural gas prices" justify its scaling back its spending on energy efficiency, because of a lack of need for additional capacity at this time. (Ives Direct at p. 10, lines 9-20.)

28. KCP&L's use of low natural gas prices and other changes in the energy markets as a basis for cutting back on proposed energy efficiency investments, without also reevaluating its much larger and riskier investment in retrofitting the La Cygne coal units, is inconsistent and unreasonable. (Biewald Direct at p. 15, lines 19-24.)

29. When KCP&L submitted its request for predetermination to the KCC in February 2011, it included a probabilistic analysis incorporating a variety of model runs with different input assumptions. These model runs included cases with and without the La Cygne retrofit at both "mid" and "low" gas prices. (Biewald Direct at p. 12, lines 20-23.)

30. KCP&L's February 2011 model runs at "mid" gas prices found that retiring La Cygne was $196 million more expensive than retrofitting it. (Biewald Direct at p. 12, lines 23-26, & Schedule BEB-2.)

31. Net benefits of about $200 million do not make a compelling case for the La Cygne retrofit investment, when considered in the context of the scale of the investment (currently estimated at $1.23 billion), the total system revenue requirements, and the many uncertainties in projecting future benefits. (Biewald Direct at p. 12, lines 26-29.)

32. By contrast, KCP&L's February 2011 model runs at "low" gas prices found that retiring La Cygne was $368 million less costly than retrofitting and continuing to operate it. (Biewald Direct at p. 13, lines 1-3, & Schedule BEB-2.)

33. In his testimony at the evidentiary hearing in this case, KCP&L witness Burton L. Crawford acknowledges that "under low gas price scenarios, . . . models indicate in an economic perspective that it would be more economic to retire La Cygne" than to retrofit it. (Tr. at 627.)

34. Based on KCP&L's own analysis, it is apparent that low natural gas prices could shift the project from being an economically justified investment to an imprudent investment. (Biewald Direct at p. 13, lines 5-7.)

35. Given the developments of the last one to two years in natural gas and energy markets, the results of KCP&L's analysis of the economics of the La Cygne retrofits should be updated now to determine whether it is prudent to proceed with the retrofit project. (Biewald Direct at p. 13, lines 7-9.)

Montrose

36. The Montrose Generating Station consists of three KCP&L owned coal-fired units built in 1958, 1960, and 1964, with capacities of 170 MW, 164 MW, and 176 MW, respectively. (Biewald Direct at p. 17, lines 7-9.)

37. KCP&L is also planning to invest in environmental controls at two coal-fired generating units at the Montrose Generating Station, Montrose Units 2 and 3, in order to continue operating the units in compliance with MATS and other environmental regulations. (Crawford Direct at p. 20, lines 3-16.)

38. Cost estimates are provided for KCP&L's planned investments in environmental controls at Montrose, but only on a "highly confidential" basis. (Crawford Direct at p. 20, lines 10-16.)

39. KCP&L witness Burton L. Crawford testifies that, "[s]ince KCP&L's MATS compliance strategy is still under evaluation, the estimated cost of compliance may change." (Crawford Direct at p. 20, lines 11-18.)

40. In its February 2011 filing with the KCC, KCP&L showed a net liability for retrofitting Montrose of $53 million (present value). In other words, KCP&L's own analysis found

that retiring Montrose was the lowest-cost option, with a net benefit of $53 million over investing in retrofitting it. (Biewald Direct at p. 17, lines 23-28, & p. 18, lines 1-2.)

41. Since February 2011, it is likely that the economics of continued operation of Montrose have worsened due to the significant declines in natural gas prices discussed above. (Biewald Direct at p. 18, at lines 2-3, 13-17.)

42. KCP&L's February 2011 model runs at "low" gas prices found that retiring Montrose would be $408 million less expensive than retrofitting it. (Biewald Direct at p. 18, lines 18-20.)

43. Based on KCP&L's own analysis, it is apparent that KCP&L's planned investment in retrofitting Montrose Units 2 and 3 is not likely to be economically justifiable or prudent, especially given the developments of the last one to two years in natural gas and energy markets. (Biewald Direct at p. 18, lines 1-20.)

KCP&L Ongoing Prudent Planning and Decision-Making Obligation

44. KCP&L should be required to conduct, document, and demonstrate ongoing prudent planning and decision-making with respect to the La Cygne and Montrose retrofit investments. (Biewald Direct at p. 16, lines 30-31.) KCP&L witnesses agree that the company has this ongoing obligation. (Tr. at 602, 607; Rebuttal Testimony of Tim M. Rush, Dkt. No. 167 (Sept. 5, 2012) [hereinafter "Rush Rebuttal"], at p. 18, lines 3-4.)

45. KCP&L has informally met with the Commission Staff and the Office of Public Counsel on several occasions and provided updates on the status of the La Cygne retrofit project. (Basham Direct at p. 14, lines 8-14; Rush Rebuttal at p. 17, lines 4-6, 17-21.)

46. Occasional meetings with Commission staff could be helpful in some ways, but there are some problems that need to be avoided. Most importantly, the meetings should be

noticed, open and include other parties. A complete record including attendance and minutes should also be made available. Input from stakeholders such as consumer advocates, large customers, and environmental organizations could be helpful toward reasonable consideration of relevant issues, such as the costs and economic risks of the Company proceeding with its retrofits. Leaving interested parties out could leave valuable perspectives or information out of the discussion. There is also the potential for conversations between just the Company and the Commission staff about such an important matter creating an impression of a lack of openness and transparency regarding the spending of well over $1 billion of potential ratepayer money. It is important that anything that happens at an informal non-noticed meeting not be allowed to generate an impression or claim that staff or the Commission or anyone else in attendance in any way approved, acquiesced to, or ratified any action of the Company. (Surrebuttal Testimony of Bruce E. Biewald, Dkt. No. 270 (Oct. 8, 2012) [hereinafter "Biewald Surrebuttal"], at p. 2 lines 16-29.)

47. KCP&L witnesses also assert that the company's Integrated Resource Planning ("IRP") process adequately ensures that KCP&L is conducting prudent planning and decision-making with regards to potential retrofits of La Cygne and Montrose. (Tr. at 589-591, 602-603, 606-607, 613-614; Rush Rebuttal at p. 18, lines 3-7; Rebuttal Testimony of Burton L. Crawford, Dkt. No. 181 (Sept. 5, 2012), at p. 15, lines 3-21.)

48. Although KCP&L's 2012 IRP filing does address similar questions regarding the economics of retrofitting coal units at La Cygne and Montrose versus retiring them, Sierra Club has identified a number of deficiencies with KCP&L's IRP analysis, which it has properly raised in that proceeding. In particular, KCP&L relied upon outdated and

unreasonably high natural gas price forecasts, and it made unreasonable assumptions about future off-system sales, both of which tend to skew its analysis to incorrectly favor investment in retrofit of aging coal units rather than their retirement. (Biewald Surrebuttal at p. 3, lines 11-19, & Schedule BEB-5.)

49. In addition, the timing of the IRP process is not well-coordinated with the decision making timeframe involving the proposed La Cygne and Montrose retrofits. Given the scale of the retrofits being considered, completion by the required dates in 2015 would appear to require significant work (and additional investment that may be imprudent to incur) in the near future, before the IRP process is complete. (Biewald Surrebuttal at p. 3, lines 22-30.)

50. Notwithstanding KCP&L's 2012 IRP filing, an up-to-date, transparent analysis of the economics of retrofitting coal units at La Cygne and Montrose remains to be done. (Biewald Surrebuttal at p. 3, lines 19-21, & Schedule BEB-5.)

51. KCP&L witness Tim Rush testifies that the company would not be opposed to opening a separate docket to "further explore the status or the progress of the La Cygne or Montrose [retrofit] projects." (Tr. at 589-590.)

PROPOSED CONCLUSIONS OF LAW

Issue 9: Resource Planning – LaCygne and Montrose

1. A public utility has no right to fix its own rates and cannot charge or collect rates that have not been approved by the Commission; neither can a public utility change its rates without first seeking authority from the Commission. *State ex rel. Utility Consumers Council, Inc. v. Pub. Serv. Comm'n*, 585 S.W.2d 41, 49 (Mo. banc 1979).

2. KCP&L has an obligation under Missouri law to provide electric service that is "safe and adequate and in all respects just and reasonable," including just and reasonable rates. Section 393.130.1 RSMo.

3. In determining whether particular costs and expenses can be passed through to customers as part of just and reasonable rates, the Commission employs a "prudence" standard. *State ex rel. Public Counsel v. Public Serv. Comm'n*, 274 S.W.3d 569, 577 (Mo. App. W.D. 2009); *State ex rel. Assoc. Natural Gas Co. v. Public Serv. Comm'n*, 954 S.W.2d 520, 528 (Mo. App. W.D. 1997).

4. Under Missouri law, KCP&L is not permitted to request rate recovery for its investments in environmental controls, such as its planned investments in retrofits at the La Cygne and Montrose Generating Stations, until after those retrofits are fully operational and in service. Section 393.135 RSMo.

5. Nevertheless, KCP&L has an ongoing obligation to conduct prudent planning of any investments in retrofitting the La Cygne or Montrose Generating Stations, even after construction begins, that runs contemporaneously with KCP&L making the expenditures. *State ex rel. Assoc. Natural Gas Co. v. Public Serv. Comm'n*, 954 S.W.2d 520, 528 (Mo. App. W.D. 1997) ("A determination as to whether a particular decision was prudent involves consideration of the facts and circumstances in hand at the time the decisions were made."); *In the Matter of Missouri-American Water Company's Tariff Sheets*, Report and Order, Case No. WR-2000-281 (Aug. 31, 2000) ("Prudence is measured by the standard of reasonable care requiring due diligence, based on the circumstances that existed at the time the challenged item occurred, including what the utility's management

knew or should have known.") (citing *State ex rel. City of St. Joseph v. Public Serv. Comm'n*, 30 S.W.2d 8, 14 (Mo. banc 1930)).

6. Given the developments of the last one to two years in the natural gas and energy markets, and the large and risky investments that KCP&L is planning in retrofits of coal units at the La Cygne and Montrose Generating Stations, the Commission should make clear, under its general supervisory authority over KCP&L's electric plants and to ensure that KCP&L provides electric service that is "safe and adequate and in all respects just and reasonable," that any additional investment in retrofits at La Cygne and Montrose will not be recoverable from Missouri customers unless the prudence of making those investments is justified in economic terms in a proper, transparent planning analysis that is subject to ongoing participation and examination by all interested parties. Sections 393.130.1, 393.140.1 RSMo. This is not the same as pre-approving the project, but it would assist the Company and interested stakeholders in ensuring that KCP&L does not create a situation where either ratepayers or company shareholders would be unnecessarily at risk for more than $1 billion in likely uneconomic investments in aging coal units.

CONCLUSION

The Sierra Club respectfully requests that the Commission adopt the foregoing proposed findings of fact and conclusions of law.

Dated: November 28, 2012

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct PDF version of the foregoing was filed on EFIS and sent by email on this 28th day of November, 2012, to all counsel of record.

/s/ Shannon Fisk
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