BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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| In the Matter of the Resource Plan of KCP&L Greater Missouri Operations Company | ) ) | Case No. EO-2015-0252 |
| In the Matter of the Resource Plan of Kansas City Power & Light Company | ) ) | Case No. EO-2015-0254 |

**COMMENTS OF SIERRA CLUB**

Intervenor Sierra Club hereby submits these comments on the Kansas City Power & Light Company ("KCP&L") and Kansas City Power & Light Company Greater Missouri Operations Company ("GMO") (collectively, the "Companies") 2015 Integrated Resource Plan ("IRP") filings. At the outset, Sierra Club wishes to commend the Companies for making a clear effort to incorporate into their IRP analyses reasonable assumptions concerning the probable future costs of current and forthcoming environmental regulations to the Companies' coal-fired generating units pursuant to 4 CSR 240-22.040. In making a good-faith effort to describe and document those costs—in particular, the costs of the recently finalized Clean Power Plan, as well as forthcoming Clean Air Act and Clean Water Act regulations—the Companies' IRP filings starkly contrast with Ameren Missouri's 2014 IRP filing, which is still pending before this Commission in Case No. EO-2015-0084. Sierra Club reviewed the Companies' assumptions concerning forthcoming environmental regulations affecting their coal fleet, but we do not identify any deficiencies with those assumptions here, because we find them to represent a reasonable attempt by the Companies to account for the increasingly stringent environmental requirements that they will face over the 20-year planning period. Sierra Club has identified deficiencies, however, concerning the Companies' analysis of wind resources and distributed generation, as set forth below.

## I. The Companies Should Evaluate Whether Additional Cost-Effective Wind PPAs Could Meet Energy Demands.

The Companies have been a leader in Missouri on clean energy, and have added hundreds of MW of wind to their portfolios in recent years, in recognition that low-cost wind power purchase agreements ("PPAs") represent least-cost additions that displace less economic generation. Even as the Companies have recognized the benefits of supplementing their supply-side resources with additional renewables such as low-cost wind PPAs, however, their IRP models have not yet been updated to adequately reflect those benefits.

In addition to selecting supply-side resources to meet *capacity* needs, the Companies should consider whether renewable PPAs represent low-risk, low-cost options for meeting their customers' *energy* demands. As KCP&L's own experience demonstrates, long-term wind PPAs can secure energy at competitive prices.[1] When the wind is blowing and the wind energy delivered is the least-cost option, the Companies can either temporarily ramp down their coal and gas generation or sell any excess energy off-system. Either option could be a boon to the Companies' ratepayers, who would benefit from the resulting decreased fuel and environmental compliance costs and/or from the value of the sales. These effects might also reduce the net present value revenue requirement of a given plan. As noted in a recent report from the U.S. Department of Energy's Lawrence Berkeley National Laboratory, the cost of wind has reached all-time lows this year, with the average price of a wind PPA falling to approximately $23.50/MWhr nationally.[2] Wind costs have increasingly dropped year-on-year over time and are projected to continue doing so as the downward trend of capital and O&M costs for wind farm

[1] See KCP&L Notification of Preferred Resource Plan Change, Case No. EO-2012-0323, Ex. A at 5-6 (Jan. 17, 2014).

[2] U.S. Dep't of Energy, Lawrence Berkeley National Lab., *2014 Wind Technologies Market Report* (Aug. 2015), *available at* http://energy.gov/sites/prod/files/2015/08/f25/2014-Wind-Technologies-Market-Report-8.7.pdf.

construction and operation continues—and in particular as long as projects eligible for the wind production tax credit are available.[3]

Utilities and regulators in other jurisdictions have recognized that wind PPAs can provide advantages to ratepayers even when their utility has no need for increased capacity. One example is Alabama Power, which entered into a 20-year, 202-MW PPA in September 2011 for wind from Oklahoma, and a second 202-MW agreement in 2012 for wind from Kansas. As Alabama Power explained at the time of the first purchase, "the wind power will cost less than its avoided cost and would not increase retail rates. More stringent environmental regulations, rising fuel costs and other factors would likely increase Alabama Power's avoided costs over time [. . .] making the wind PPA an increasingly better deal for customers."[4] The Alabama Public Service Commission approved certificates of public convenience and necessity for both PPAs based on findings that the 404 MW of additional wind resources would displace higher-cost energy that the utility would otherwise produce using other resources.[5] A second example is Georgia Power, which applied to the Georgia Public Service Commission ("GPSC") in November 2013 to certify two wind PPAs totaling 250 MW. In that certification proceeding, GPSC Public Interest Advocacy Staff concluded that these PPAs represent an extraordinary advantage to ratepayers despite Georgia Power having no need to add capacity for the first five years of the PPA period,

[3] Herman K. Trabish, "How wind's record low prices are driving a 'big build cycle,'" *Utility Dive* (Aug. 20, 2015), *available at* http://www.utilitydive.com/news/how-winds-record-low-prices-are-driving-a-big-build-cycle/404044/.

[4] Platts, State Regulators OK Alabama Power 202-MW Wind PPA (Sept. 8, 2011), *available at* http://www.tradewindenergy.com/WorkArea/showcontent.aspx?id=2056.

[5] *See* Alabama Public Service Commission, Dkt. Nos. 31653 & 31859, *available at h*ttps://www.pscpublicaccess.alabama.gov/pscpublicaccess/portal/alpsc/page/psc-searches/portal.aspx.

in part because they were priced below Georgia Power's avoided cost.[6] Based on these findings, the Georgia Public Service Commission approved certification of the PPA.[7]

The Companies should model resource plans that incorporate a variety of levels of renewables to supply energy in addition to existing supply-side resources that meet the Companies' capacity needs. When wind is anticipated to be available, models should assume either: 1) decreased generation from other resources, such as the Companies' coal and gas units—and therefore, decreased fuel and compliance costs—and/or 2) increased off-system sales. The Companies existing IRP modeling methodologies do not appear to adequately account for these benefits to ratepayers from additional wind resource to supply energy, as opposed to simply supplying capacity. Nor do the Companies incorporate a range of potential wind additions in different years to determine what the optimal level of additional wind resources might be for minimizing the net present value of the Companies' revenue requirement. As result, the Companies' IRP modeling does not appear to "fairly analyze" supply-side resource additions of wind, rendering it deficient under 4 CSR 240-22.040(1).

## II. The Companies Must Consider A Range of Distributed Generation Technologies As Candidate Resource Options.

The Companies' 2015 IRPs are deficient because they fail to incorporate a range of distributed generation technologies as candidate resource options in alternative resource plans. The Commission's IRP rules explicitly require the Companies to analyze distributed generation technologies during the IRP process: "supply-side candidate resource options that the utility passes on for further evaluation in the integration process shall represent a wide variety of

[6] Georgia Public Service Commission, Staff Direct Testimony of Jamie Barber and Carolyn Gilbert, Docket No. 37854, at 14-15 (Mar. 28, 2014), *available at* http://www.psc.state.ga.us/factsv2/Docket.aspx?docketNumber=37854.

[7] Georgia Public Service Commission, Order Approving Stipulation, Docket No. 37854 (May 29, 2014), *available at* http://www.psc.state.ga.us/factsv2/Docket.aspx?docketNumber=37854.

supply-side resource options with diverse fuel and generation technologies, including a wide range of [. . .] technologies for distributed generation." 4 CSR 240-22.040(4). The Companies are required to analyze "candidate resource options" more thoroughly than other potential resource options, and to include them in one or more alternative resource plans. *See* 4 CSR 240-22.040; 4 CSR 240-22.020(3).

Although the Companies do include solar photovoltaic ("PV") technology as one of the candidate resource options analyzed in this IRP, the Companies do not differentiate between utility-scale and distributed solar PV in their description of this option and do not describe or document any relevant differences in cost or availability between the two different types of PV. According to the Companies, these additions of solar PV are driven by state Renewable Portfolio Standard requirements rather than any analysis of whether those resource options, or any additional solar PV or other distributed generation resource options beyond those modeled, would reduce the net present value revenue requirement for the Companies' ratepayers.

In addition, the Companies do not appear to have made any attempt to analyze the impact that the growth of distributed generation technologies (including those that are not utility-owned) will have on the modeled outcomes of their preferred or alternative resource plans. Nor have the Companies included any analysis of programs to maximize the potential for distributed generation technologies (such as community solar programs[8]) within any of the modeled plans.

[8] See, e.g., U.S. Dep't of Energy, National Renewable Energy Labs., "A Guide to Community Solar: Utility, Private, and Non-profit Project Development," Nov. 1, 2010, available at http://www.nrel.gov/docs/fy11osti/49930.pdf; see also Herman K. Trabish, "Note to utilities: Here's why 2015 is the 'tipping point' for community solar," Utility Dive (Aug. 11, 2015), available at http://www.utilitydive.com/news/note-to-utilities-heres-why-2015-is-the-tipping-point-for-community-sol/403284/.

The Companies have failed to analyze distributed generation potential for this IRP filing despite the fact that the Commission directed them to do so by requiring a response to the following special contemporary issue:

> Analyze and document the range of potential levels of distributed generation in KCP&L's service territory for the 20-year planning horizon and the potential impacts of each identified level of distributed generation, and in particular distributed solar generation, on KCP&L's preferred resource plan. The potential impacts should quantify both the amount of electrical energy the distributed generation is expected to provide to the grid and the amount of electrical energy that the distributed generation customers are expected to consume on site that will offset the amount that the company would normally provide to those customers.

Order Establishing Special Contemporary Resource Planning Issues, Case Nos. EO-2015-0040 & EO-2015-0041, at 4.

In response to this special contemporary issue, the Companies asserted that "[t]here is a substantial amount of uncertainty" as to the impact that distributed generation technologies will have over a 20-year planning horizon. The Companies further claim that, under current rebate levels, they have experienced low numbers of applications from net-metering customers and therefore that "there is a lack of relevant data" needed to evaluate this issue. KCP&L 2015 IRP at Vol. 8, p. 17-18; GMO 2015 IRP at Vol. 8, p. 18-19.

This is not an acceptable response in light of the clear requirements of the IRP rules and the Commission's order on special contemporary issues, both of which direct the Companies to conduct this analysis now, not simply kick the can down the road for another three years on the ground that the issue needs further study. The Companies should remedy this deficiency in their 2015 IRPs by completing an analysis in compliance with 4 CSR 240-22.040(4) that evaluates the potential for a range of distributed generation technologies and analyzes whether programs to support distributed generation could lower the net present value revenue requirement for their ratepayers. Other utilities such as PacifiCorp have recently completed similar analyses of

distributed generation potential that could be referenced by the Companies as a model.[9]

The Companies also point out that they are participating in a nationwide market research study of "what motivates large and midsize business customers to acquire photovoltaic (PV) and other distributed generation (DG) technologies." KCP&L IRP at Vol. 1, p. 28-29; GMO IRP at Vol. 1, p. 36-37. Participation in this study is a positive step, but falls short of the analysis of the potential for a range of distributed generation technologies as a candidate resource options that the IRP rules require.

## III. Conclusion and Remedies

Sierra Club respectfully requests that the Commission issue an order pursuant to 4 CSR 240-22.080(16)(D) requiring the Companies to prepare a revised triennial IRP filing that corrects the deficiencies identified above.

Respectfully submitted,


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[9] See Navigant Consulting, Distributed Generation Resource Assessment for Long-Term Planning Study (Prepared for PacifiCorp), June 9, 2014, available at http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2015IRP/2015IRPStudy/Navigant_Distributed-Generation-Resource-Study_06-09-2014.pdf.

**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct PDF version of the foregoing was filed on EFIS and electronically mailed to all counsel of record on this 31st day of August, 2015.

/s/ Sunil Bector
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