KANSAS CITY POWER & LIGHT COMPANY (KCP&L)

2014 ANNUAL RENEWABLE ENERGY STANDARD COMPLIANCE PLAN

April 15, 2014

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SECTION 1: INTRODUCTION

Kansas City Power & Light Company ("KCP&L"), a Missouri Corporation, has filed its 2014 Annual Renewable Energy Standard Compliance Plan ("2014 Plan") in compliance with the Missouri Public Service Commission's ("Commission") Electric Utility Renewable Energy Standard Requirements [4 CSR 240-20.100]. Section (7) of the rule requires that each public utility file with the Commission a Renewable Energy Standard (RES) Compliance Plan by April 15 of each year.

Specifically, Section 7 (B) of the rule requires that the plan shall cover the current year and the immediately following two (2) calendar years. The RES compliance plan shall include, at a minimum:

A. A specific description of the electric utility's planned actions to comply with the RES;

B. A list of executed contracts to purchase Renewable Energy Credits (RECs) (whether or not bundled with energy), including type of renewable energy resource, expected amount of energy to be delivered, and contract duration and terms;

C. The projected total retail electric sales for each year;

D. Any differences, as a result of RES compliance, from the utility's preferred resource plan as described in the most recent electric utility resource plan filed with the commission in accordance with 4 CSR 240-22, Electric Utility Resource Planning;

E. A detailed analysis providing information necessary to verify that the RES compliance plan is the least cost, prudent methodology to achieve compliance with the RES;

F. A detailed explanation of the calculation of the RES retail impact limit calculated in accordance with section (5) of this rule. This explanation should include the pertinent information for the planning interval which is included in the RES compliance plan; and

G. Verification that the utility has met the requirements for not causing undue adverse air, water, or land use impacts pursuant to subsection 393.1030.4. RSMo, and the regulations of the Department of Natural Resources.

The 2014 Plan represents KCP&L's planned renewable compliance efforts and purchases that are currently underway and that will continue through 2014-2016 to achieve the requirements of 4 CSR 240-20.100.

SECTION 2: RES COMPLIANCE PLAN

Rule (7) (B) 1: The plan shall cover the current year and the immediately following two (2) calendar years. The RES compliance plan shall include, at a minimum -

2.1 RULE (7) (B) 1 A:

A specific description of the electric utility's planned actions to comply with the RES;

2.1.1 NON-SOLAR COMPLIANCE

KCP&L generates renewable energy at its Spearville 1 wind facility located in Kansas, and will continue to do so during the 2014-2016 RES Compliance Plan period. The Spearville 1 facility, installed in 2006, is wholly owned by KCP&L and has a capacity of 100.5 MW. An additional 48 MW of capacity was constructed in 2010 (Spearville 2).

Additionally, KCP&L has procured two long-term Power Purchase Agreements (PPAs) totaling approximately 230 MW of installed wind capacity. The wind facilities supplying these contracts entered service during 2012. One PPA is with a subsidiary of Duke Energy Renewables for 131.1 MW from the Cimarron II wind project located in Gray County, Kansas. The other PPA is with Spearville-3 LLC, whose parent company is EDF Renewables, to purchase energy from a 100.8 MW wind project located in Ford County, Kansas.

In addition, the most recent resource addition was from KCP&L's issuance of a Request for Proposals ("RFP") in July, 2013 to obtain and evaluate wind project offers from wind developers. Accordingly, KCP&L obtained the Waverly wind resource through a PPA with EDP Renewables for a 200 MW facility located in Coffey County, Kansas. The PPA was executed on November 18, 2013 and has an expected Commercial Operating Date ("COD") of on or before December 31, 2015.

KCP&L also entered into a PPA with Hampton Alternative Energy Products, LLC in early 2012 for the net generation output from the Confined Animal Feedlot Operation (CAFO) facility in Triplett, Missouri, in which an anaerobic digester will capture methane from manure and utilize gen-sets to convert the captured methane into electricity. The expected power output from the facility is 300 kW. The output from this facility, which is not needed to meet RES requirements in the 2014-2016 RES Compliance Plan period, may generate qualified RECs after internal energy needs are met.

The annual estimated Missouri jurisdictional share of KCP&L's wind generation is approximately 308,000 MWh per year from Spearville 1 and 2, approximately 300,000 MWh from Cimarron II, and approximately 240,000 MWh from Spearville-3. This generation may be impacted by available transmission and interconnection capacity.

KCP&L expects to have banked RECs available to meet its RES requirements based on RECs unexpired at the end of 2013, in addition to the RECs created from wind facilities' actual generation. Accordingly, the RECs generated from these renewable resources in addition to the banked RECs will fulfill KCP&L's Missouri RES non-solar requirements for the 2014 to 2016 RES Compliance Plan period shown in Table 3 below.

2.1.2 SOLAR COMPLIANCE

KCP&L continues to monitor the feasibility and economics of constructing and operating utility scale solar generation. KCP&L uses multiple sources to identify general cost trends as well as specific project costs, including data from the Electric Power Research Institute (EPRI) and the SNL Energy website. While solar technology costs have decreased significantly over the past several years, the cost of complying by purchasing Solar Renewable Energy Credits (SRECs) remains a fraction of what it would cost to build and operate a utility scale solar generation facility. Therefore, KCP&L plans to continue to procure SRECs as needed for

compliance during the RES Compliance Plan period, and expects to obtain SRECs from KCP&L retail customers that have received rebates for solar facility additions

In addition, as part of its SmartGrid project, KCP&L has completed the solar installations shown in Table 1 below.

Table 1: KCP&L SmartGrid Solar Installations

Installation	Completion Date	Size (kW)
Paseo High School	Apr-12	99.18
Innovation Park – KCP&L Midtown	Oct-12	5.0
Midwest Research Institute	May-13	10.56
UMKC Flarsheim Hall	May-13	4.32
UMKC Student Union	May-13	5.28
Blue Hills Solar	Aug-13	10.08
KCP&L Crosstown Substation	Apr-14	30.0

These solar installations are part of the plan to install 180 kW of utility owned and operated solar in and around the SmartGrid demonstration project area. The generation from these facilities will be distributed to KCP&L's service territory and is expected to provide qualified SRECs. The final installation of SmartGrid solar is expected to be completed in the second quarter of 2014. Due to lien and legal restrictions, no solar facilities have been installed on residential properties. Additionally, KCP&L expects to obtain SRECs transferred from qualified customer-generator's operational solar electric systems as a condition of receiving the solar rebate, a change instituted with Missouri House Bill 142 becoming law on August 28, 2013. SRECs produced from these solar electric systems will be transferred to KCP&L for a period of 10 years. Generation from these company and customer-owned facilities would be eligible for application of the 1.25 factor as these facilities are located in Missouri. Thus, as indicated above, the balance of KCP&L's solar RES needs would come from procurement of SRECs through third party brokers.

2.1.3 STANDARD OFFER CONTRACT

KCP&L does not have a Standard Offer Contract tariff in place at this time.

2.2 RULE (7) (B) 1 B:

A list of executed contracts to purchase RECs (whether or not bundled with energy), including type of renewable energy resource, expected amount of energy to be delivered, and contract duration and terms;

Table 2 below provides the details of KCP&L's executed contracts to purchase wind energy.

Table 2: KCP&L List of Executed Contracts for Renewable Wind Energy

Project Name	Contracting Parent Company	Contract Type	Project Size (MW)	COD Date	Term (Yrs.)	Expected Annual Energy (MWh)
Cimarron II	Duke Energy	Energy & RECs	131.1	6/1/2012	20	518,000
Spearville 3	EDF Renewables	Energy & RECs	100.8	10/1/2012	20	424,000
Waverly	EDP Renewables	Energy & RECs	200	12/31/2015	20	852,000

It should be noted that the expected generating output in Table 2 does not match the Missouri portion of generation provided in Section 2.1.1 as the expected energy listed above reflects the total (100%) expected output of each facility. Additionally, this generation reflects available transmission and interconnection capacity.

To comply with the Missouri 2014-16 solar RES requirements, KCP&L expects to purchase as needed SRECs from qualified facilities likely located outside of Missouri. The purchases are expected to be for SRECs only with no delivered energy. Additionally, KCP&L expects to utilize SRECs transferred from qualified customer-generator's operational solar electric systems as a condition of receiving the solar rebate. The SRECs will be registered in WREGIS (Western Renewable Energy Generation Information System) and will have been transferred to NARR (North American Renewables Registry). Refer to Section 2.5.1 for information concerning 2014 SREC purchases.

2.3 RULE (7) (B) 1 C:

The projected total retail electric sales for each year;

KCP&L's projected Missouri retail electric sales and associated RES requirements are provided in Table 3 below.

Table 3: KCP&L Projected Retail Sales and RES Requirements

Year	Projected Retail Electric Sales (MWh)	Non-Solar Req. (MWh)	Solar Req. (MWh)
2014	8,603,162	421,555	8,603
2015	8,542,477	418,581	8,542
2016	8,512,298	417,103	8,512

2.4 RULE (7) (B) 1 D:

Any differences, as a result of RES compliance, from the utility's preferred resource plan as described in the most recent electric utility resource plan filed with the commission in accordance with 4 CSR 240-22, Electric Utility Resource Planning;

The RES Compliance Plan described in this report mirrors KCP&L's preferred resource plan filed on March 20, 2014 as no additional renewable resources are required for compliance during the 2014-2016 RES Compliance Plan period. Note that the 2014 IRP Annual Update provides for wind and solar additions in years beyond the 2014-2016 RES Compliance Plan period to meet RES obligations as applicable.

2.5 RULE (7) (B) 1 E

A detailed analysis providing information necessary to verify that the RES compliance plan is the least cost, prudent methodology to achieve compliance with the RES;

The existing Spearville 1 wind generating facility being utilized for non-solar compliance was installed prior to passage of the RES rules and was justified and constructed as part of KCP&L's Comprehensive Energy Plan. Since this facility is already in place, the wind energy provided by this facility represents the least cost approach for achieving non-solar compliance for the 2014-2016 RES Compliance Plan period.

KCP&L submitted a Request for Proposal (RFP) to meet future wind requirements in November 2010. Additionally, in August 2011, a single RFP was issued to cover both KCP&L and GMO non-solar requirements. A complete evaluation of both sets of proposals received was conducted and resulted in consummation of two separate PPAs. As mentioned above, one PPA is with Duke Energy Renewables for the Cimarron II wind farm, and the other with EDF Renewables for the Spearville-3 wind farm. In addition, KCP&L issued an RFP in July, 2013 to obtain and evaluate wind project offers from wind developers, which resulted in consummation of a PPA with EDP Renewables for the Waverly wind facility mentioned above. These PPAs were entered into to take advantage of low-cost energy prices and will be used to meet future KCP&L non-solar RES requirements.

2.5.1 THIRD PARTY SOLAR SREC PROCUREMENT

For solar compliance, the purchase of SRECs through an industry broker is currently the least expensive alternative. For 2014, KCP&L has purchased 8,700 SRECs needed for compliance at a cost that is significantly less than the projected cost to add new solar capacity. The SRECs were purchased from Costco Wholesale Corporation. The cost of the SRECs purchased for 2014 compliance was approximately $19,800, or about $2.28 per SREC. Note that 1 SREC represents 1 MWh of solar generation. The cost for compliance under a solar PPA option is approximately $130 - $140 per MWh. Additionally, the need for third party SRECs is expected to be eliminated with the inclusion of SRECs transferred from qualified customer-generator's operational solar electric systems as a condition of receiving the solar rebate.

2.6 RULE (7) (B) 1 F

A detailed explanation of the calculation of the RES retail impact limit calculated in accordance with section (5) of this rule. This explanation should include the pertinent information for the planning interval which is included in the RES compliance plan;

See Section 3 of this RES Compliance Plan for a description of the retail rate impact calculation.

2.7 RULE (7) (B) 1 G

Verification that the utility has met the requirements for not causing undue adverse air, water, or land use impacts pursuant to subsection 393.1030.4. RSMo, and the regulations of the Department of Natural Resources.

The solar facility from which the SRECs will be purchased to achieve 2014 solar RES compliance is expected to be located outside of the State of Missouri. The SRECs will be registered in WREGIS (Western Renewable Energy Generation Information System) and have been transferred to NARR (North American Renewables Registry), and are also National Green-e Certified.

Wind generation specifically conforms to the eligible renewable energy resources listed in section (2) of Missouri Department of Natural Resources (MDNR) rule 10.CSR 140-8.010. The Spearville 1 and 2 wind facilities are located within Kansas. The Cimarron II and Spearville 3 wind facilities are located in Kansas and are not owned by KCP&L, and the owner-operator would be responsible for ensuring that they have not caused any undue adverse air, water, or land use impacts. The Waverly wind facility that is expected to be completed in late 2015 will be located in Kansas, will not be owned by KCP&L, and the owner-operator would be responsible for ensuring that it has not caused any undue adverse air, water, or land use impacts.

All generating facilities utilized by KCP&L to meet the requirements of the Missouri RES have, to its knowledge, received all necessary environmental and operational

permits and are in compliance with any necessary federal, state and/or local requirements related to air, water and land use.

KCP&L will submit additional information as required by the MDNR in order to review the energy sources and environmental impact so long as there are appropriate provisions for confidential treatment of any sensitive information. KCP&L will grant or obtain access to facility sites and records for MDNR.

SECTION 3: RATE ANALYSIS

PURPOSE: This report demonstrates compliance with 4 CSR 240-20.100(5) and determines the average rate impact within a ten-year period and incorporating the effects of future GHG legislation and costs.

3.1 RETAIL RATE IMPACT

Rule (5)(A): The retail rate impact, as calculated in subsection (5)(B), may not exceed one percent (1%) for prudent costs of renewable energy resources directly attributable to RES compliance. The retail rate impact shall be calculated on an incremental basis for each planning year that includes the addition of renewable generation directly attributable to RES compliance through procurement or development of renewable energy resources, averaged over the succeeding ten (10)-year period, and shall exclude renewable energy resources owned or under contract prior to the effective date of this rule.

The retail rate impact was calculated by comparing a non-renewable generation and purchased power portfolio to a RES-compliant portfolio with sufficient renewable resources to achieve the renewable standards. KCP&L has performed this rate impact calculation in accordance with the Stipulation and Agreement filed October 3, 2013, Case Number ET-2014-0059. The calculations were completed consistent with KCP&L's understanding of Staff's interpretation of the RES rules. For each year of the 2014-2016 RES Compliance Plan period, the annual retail rate impact is limited to a maximum of 1% of the 10-year average non-RES compliant revenue requirement.

The annual retail rate impacts for KCP&L for the 2014-2016 RES Compliance Plan period are show in Table 4 below. KCP&L has presumed that the solar requirements will be met with SRECs transferred from qualified customer-generator's operational solar electric systems as a condition of receiving the solar rebate.

Table 4: KCP&L Annual Retail Rate Impacts

KCP&L-MO Annual Retail Rate Impact	
Year	Rate Impact
2014	0.249%
2015	0.189%
2016	0.241%

3.2 TOTAL REVENUE REQUIREMENTS

Rule (5)(B): The RES retail rate impact shall be determined by subtracting the total retail revenue requirement incorporating an incremental non-renewable generation and purchased power portfolio from the total retail revenue requirement including an incremental RES compliant generation and purchased power portfolio. The non-renewable generation and purchased power portfolio shall be determined by adding to the utility's existing generation and purchased power resource portfolio additional non-renewable resources sufficient to meet the utility's needs on a least-cost basis for the next ten (10) years. The RES-compliant portfolio shall be determined by adding to the utility's existing generation and purchased power resource portfolio an amount of renewable resources sufficient to achieve the standard set forth in section (2) of this rule and an amount of least-cost non-renewable resources, the combination of which is sufficient to meet the utility's needs for the next ten (10) years.

The following table shows the projected RES expenditures and retail rate impact based on an average of the next ten years of non-renewable portfolio revenue requirements.

Table 5: KCP&L Annual RES Expenditures and Rate Impact

KCP&L-MO Annual RES Expenditures and Rate Impact			
Year	Projected Revenue Requirement 10-Yr Avg ($M)	Projected RES Exp. 10-Yr. Avg. ($M)	Rate Impact
2014	$ 1,140.4	$ 2.8	0.249%
2015	$ 1,180.2	$ 2.2	0.189%
2016	$ 1,214.5	$ 2.9	0.241%

3.3 RESOURCE PLAN SOURCES

Rule (5)(B): These renewable energy resource additions will utilize the most recent electric utility resource planning analysis.

The KCP&L RES Compliance Plan includes wind resource additions based upon the assumptions used in the 2014 KCP&L IRP Annual Update Case EO-2014-0256 filed on March 20, 2014. There are no solar resource additions in the compliance plan, since the purchased SRECs and projected SRECs from the solar rebate customers will meet the KCP&L solar requirement.

3.4 ANALYSIS DATA SOURCE

Rule (5)(B): These comparisons will be conducted utilizing projections of the incremental revenue requirement for new renewable energy resources, less the avoided cost of fuel not purchased for nonrenewable energy resources due to the addition of renewable energy resources. In addition, the projected impact on revenue requirements by non-renewable energy resources shall be increased by the expected value of greenhouse gas emissions compliance costs, assuming that such costs are made at the expected value of the cost per ton of greenhouse gas emissions allowances, cost per ton of a greenhouse gas emissions tax (e.g., a carbon tax), or the cost per ton of greenhouse gas emissions reductions for any greenhouse gas emission reduction technology that is applicable to the utility's generation portfolio, whichever is lower. Calculations of the expected value of costs associated with greenhouse gas

emissions shall be derived by applying the probability of the occurrence of future greenhouse gas regulations to expected level(s) of costs per ton associated with those regulations over the next ten (10) years. Any variables utilized in the modeling shall be consistent with values established in prior rate proceedings, electric utility resource planning filings, or RES compliance plans, unless specific justification is provided for deviations.

During the 2014-2016 RES Compliance Plan period, no additional renewable resource are required for compliance. The 10-year average non-RES compliant revenue requirement is based on the 2014 KCP&L IRP Annual Update that includes the expected value of greenhouse gas compliance costs. The variables used are those from the 2014 IRP.

3.5 RATE IMPACT COMPARISON

Rule (5)(B): The comparison of the rate impact of renewable and non-renewable energy resources shall be conducted only when the electric utility proposes to add incremental renewable energy resource generation directly attributable to RES compliance through the procurement or development of renewable energy resources.

While KCP&L is not proposing to add any incremental renewable energy resources directly attributable to RES compliance during the 2014-2016 RES Compliance Plan period, the retail rate impact was calculated for each year and is provided in Table 4 above.

3.6 REBATES

Rule (5)(C) Rebates made during any calendar year in accordance with section (4) of this rule shall be included in the cost of generation from renewable energy resources.

Solar rebates have been included in the analysis and are provided in the following table, along with Solar Renewable Energy Credit (S-RECs) costs and administrative

costs. The following table provides the projected amounts of renewable expenditures associated with the solar resources and rebates needed to comply with the requirements of Missouri's Renewable Standard during the 2014-2016 Plan period. The solar rebates are in accordance with the Stipulation and Agreement filed October 3, 2013, Case Number ET-2014-0059.

Table 6: KCP&L Compliance Expenditures

KCP&L COMPLIANCE EXPENDITURES							
Year	S-RECs	S-REC Price	S-REC Cost	Solar Rebates	NAR Administration & Other	Utility-Owned Revenue Requirement	Total
2014	8,700	$ 2.28	$19,836	$ 21,854,218	$ 874,535	$ 54,551	$22,803,140
2015	N/A	N/A	N/A	$ 4,500,000	$ 219,321	$ 50,569	$ 4,769,890
2016	N/A	N/A	N/A	$ -	$ 51,593	$ 46,148	$ 97,741

3.7 ADJUSTMENTS

Rule (5)(D) For purposes of the determination in accordance with subsection (B) of this section, if the revenue requirement including the RES-compliant resource mix, averaged over the succeeding ten (10)-year period, exceeds the revenue requirement that includes the non-renewable resource mix by more than one percent (1%), the utility shall adjust downward the proportion of renewable resources so that the average annual revenue requirement differential does not exceed one percent (1%). In making this adjustment, the solar requirement shall be in accordance with subsection (2)(F) of this rule. Prudently incurred costs to comply with the RES standard, and passing this rate impact test, may be recovered in accordance with section (6) of this rule or through a rate proceeding outside or in a general rate case.

For the 2014-2016 RES Compliance Plan period, no additional renewable resources are required to meet the RES requirements, therefore no adjustments are necessary.

3.8 FEDERAL PROGRAM COSTS

Rule (5) (E) Costs or benefits attributed to compliance with a federal renewable energy standard or portfolio requirement shall be considered as part of

compliance with the Missouri RES if they would otherwise qualify under the Missouri RES without regard to the federal requirements.

KCP&L does not have a federal renewable obligation at this time.