

Exhibit No.:
Issue: RTO
Witness: Charles J. Locke
Type of Exhibit: Direct Testimony
Sponsoring Parties: Kansas City Power & Light Company and
KCP&L Greater Missouri Operations Company
Case Nos.: EO-2012-0135
EO-2012-0136
Date Testimony Prepared: October 5, 2012

MISSOURI PUBLIC SERVICE COMMISSION

CASE NOS.: EO-2012-0135 and EO-2012-0136

DIRECT TESTIMONY

OF

CHARLES J. LOCKE

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

AND

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri

October 2012

DIRECT TESTIMONY

OF

CHARLES J. LOCKE

Case Nos. EO-2012-0135 and EO-2012-0136

1 **Q: Please state your name and business address.**

2 A: My name is Charles J. Locke. My business address is 1200 Main Street, Kansas City,
3 Missouri 64105.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company (“KCP&L”) as Manager,
6 Regulatory Affairs.

7 **Q: On whose behalf are you testifying?**

8 A: I am testifying on behalf of KCP&L and KCP&L Greater Missouri Operations Company
9 (“GMO”), (collectively referred to as the “Company”).

10 **Q: What are your responsibilities?**

11 A: My responsibilities include regulatory matters related to the Federal Energy Regulatory
12 Commission (“FERC”), including the submission of rate schedule and tariff filings,
13 recovery of transmission costs, and regulatory issues involving Southwest Power Pool,
14 Inc. (“SPP”), which serves as the Regional Transmission Organization (“RTO”) for both
15 KCP&L and GMO. In the latter role, I serve as the Company representative on the SPP
16 Regional Tariff Working Group, currently as vice chairman of the committee, and I
17 follow developments in other SPP committees including the Cost Allocation Working
18 Group.

1 **Q: Please describe your education, experience and employment history.**

2 A: I received a Bachelor of Science degree in economics from Southwest Missouri State
3 University and a Master of Arts degree in economics from the University of Missouri—
4 Kansas City. I have been employed by KCP&L since 1981 and have performed or
5 supervised numerous functions including load research, load forecasting, cost-of-service
6 analysis, rate design, billing services, risk analysis, and tariff administration. I assumed
7 my current responsibilities for FERC and SPP regulatory matters in 2004.

8 **Q: Have you previously testified in a proceeding at the Missouri Public Service
9 Commission (“MPSC”) or before any other utility regulatory agency?**

10 A: I have presented written testimony before the FERC and the Kansas Corporation
11 Commission but have not presented testimony before the MPSC. However, I have been
12 actively involved in other capacities in numerous proceedings before the MPSC,
13 including discussions at technical conferences, settlement meetings, and workshops.

14 **Q: What is the purpose of your testimony?**

15 A: My testimony will summarize and provide background information concerning the
16 Interim Report filed by KCP&L and GMO on September 30, 2011, which addresses the
17 net benefit of participation in SPP for both KCP&L and GMO.

18 **Q: Does the Interim Report show a positive net benefit related to KCP&L and GMO
19 participation in SPP?**

20 A: Yes, the mid-point estimate provided in the Interim Report indicates a net benefit to the
21 Company of approximately \$23 million per year following the Interim Period, during
22 2014 through 2017. The annual benefit is approximately \$15 million for KCP&L and \$8
23 million for GMO.

1 **Q: Please describe the terms “Interim Report” and “Interim Period.”**

2 A: The “Interim Report” and the corresponding “Interim Period” are both terms that are
3 defined under the non-contested Stipulation and Agreement approved by the MPSC on
4 July 13, 2006 in Case No. EO-2006-0142. This case was established by the MPSC to
5 address issues related to the participation of KCP&L in the SPP RTO. The MPSC
6 approved a parallel Stipulation and Agreement with nearly identical provisions on
7 February 10, 2009 in Case No. EO-2009-0179, a case that was established by the MPSC
8 to address issues related to the participation of GMO in the SPP RTO. In my testimony, I
9 will refer to the Stipulation and Agreements approved by the MPSC in these two dockets
10 as the “KCP&L Stipulation” or “GMO Stipulation”, and together as the “Stipulations.”

11 **Q: What is the specific Interim Period as defined under the Stipulations?**

12 A: Under the KCP&L Stipulation, the Interim Period is a seven-year period beginning with
13 KCP&L’s exercise of the authority to participate in the SPP RTO, as granted by the
14 MPSC in its order in Case No. EO-2006-0142. KCP&L subsequently received all
15 necessary regulatory approvals and filed notice of the exercise of the authority granted by
16 the MPSC, effective October 1, 2006. Therefore, the Interim Period for KCP&L began
17 October 1, 2006. When the GMO Stipulation was prepared and approved, the Interim
18 Period was established to be consistent with the termination of KCP&L’s Interim Period.
19 This allows the RTO participation evaluations for KCP&L and GMO, and any actions
20 that may result, to be efficiently coordinated and synchronized for both operating
21 companies.

1 **Q: Please describe the Interim Report required by the Stipulations?**

2 A: The Stipulations require the Company to “file a pleading accompanied by a study
3 (“Interim Report”) comparing the costs and estimated benefits of participation in SPP
4 during a recent twelve-month test period.” KCP&L Stipulation, Sec. II.A(1). The GMO
5 Stipulation contains an identical requirement. The Stipulations further describe the
6 Interim Report methodology by stating “that the actual (modeled) production costs for
7 [the Company] participating in the SPP facilitated markets will be compared to an
8 estimate of what those costs would have been absent such participation for a twelve-
9 month period.” KCP&L Stipulation, footnote 1. The Interim Report filed by the
10 Company on September 30, 2011 fulfilled these stipulated requirements. Additionally,
11 the Interim Report included a substantial amount of additional information to facilitate
12 the cost-benefit evaluation.

13 **Q: Why was the scope of the Interim Report expanded beyond that defined in the**
14 **Stipulations?**

15 A: Section II.D(1) of the Stipulations provides “[w]ith respect to this Interim Report, KCPL
16 agrees to collaborate with the [MPSC] Staff and Public Counsel regarding issues that
17 either party may consider to be critical to a proper cost-benefit analysis.” The GMO
18 Stipulation contains the same provision. In compliance with Section II.D(1), the
19 Company engaged in discussions with both the MPSC Staff (“Staff”) and the Office of
20 the Public Counsel (“OPC”) in February 2011 for the purpose of collaboration regarding
21 issues to be addressed in the Interim Report. During a conference call among
22 representatives of the Company, Staff, and OPC on February 25, 2011, Staff and OPC
23 expressed concerns that the scope of the Interim Report as described in the Stipulations

1 was not broad enough to adequately evaluate whether the Company would be a net
2 beneficiary by remaining in SPP as compared to operating on a stand-alone basis. During
3 the ensuing weeks, collaboration among these parties continued for the purpose of
4 defining an approach to the study that would entail a much more comprehensive Interim
5 Report than was required under the terms of the Stipulations. In addition to the initial
6 conference call on February 25, this collaborative process included email
7 communications, a face-to-face meeting on March 18, 2011, and further conference calls
8 on April 7 and April 20, 2011. Empire District Electric Company (“EDE”) was invited to
9 participate in the last two conference calls because EDE has the same stipulated Interim
10 Report requirements as the Company, albeit with a filing deadline several months later
11 than the Company’s deadline of September 30, 2011. The outcome of this collaborative
12 process was the development of an analysis plan for the Interim Report that incorporated
13 a much broader array of factors and studies than was required under the Stipulations. The
14 final analysis plan document was distributed to the Staff, OPC, and EDE by email on
15 April 25, 2011. A copy of this document was included as Attachment A in the
16 Company’s Interim Report filing on September 30, 2011 and is attached hereto as
17 Schedule CJL-1.

18 **Q: What additional elements were added to the Interim Report as a result of those**
19 **discussions with the MPSC Staff and the Office of the Public Counsel?**

20 A: As set forth in Schedule CJL-1, the scope of the Interim Report was expanded in several
21 respects. First, whereas the Stipulations contemplated an Interim Report that was a
22 backward look at a single twelve-month test period, the final analysis plan included both
23 that specific historical analysis as well as studies of other historical and projected periods

1 so that the time horizon of the study could extend until 2016 or 2017. Second, the
2 specific requirements in the Stipulations would have resulted in a study only of SPP's
3 current energy imbalance service ("EIS") market in comparison to operation outside of an
4 RTO market. Instead, the analysis plan takes into account both the benefits and costs of
5 the EIS market and the benefits and costs associated with SPP's planned Integrated
6 Marketplace. The Integrated Marketplace currently is planned for implementation in
7 March 2014 and includes day-ahead and real-time markets, financial hedging of
8 transmission congestion costs, and market-based unit commitment and ancillary services.
9 Finally, the Interim Report under the expanded analysis plan incorporated several key
10 benefit-cost elements beyond the focus on production costs and market operations that
11 was defined under the Stipulations. Under the expanded analysis plan, the Interim Report
12 included the following major categories for analysis: (i) reliability services, (ii) energy
13 markets (including ancillary services), (iii) transmission upgrades, (iv) SPP exit fees, and
14 (v) administrative costs. Each of these categories was further broken down as needed
15 into subcategories for benefit-cost analysis. Also, as provided in the analysis plan, a sixth
16 category was included to account for factors that are not easily quantifiable but that have
17 the potential to substantially affect the net benefit of RTO participation. For each of
18 these categories, the Company was to analyze (i) operations in SPP and (ii) operations on
19 a stand-alone basis outside the RTO. Where practical, uncertainty was to be reflected in
20 the study by including benefit-cost impact ranges. An additional goal in developing the
21 analysis plan was to utilize existing studies of costs and benefits wherever possible and to
22 employ internal resources in producing the analysis where studies do not already exist.
23 This approach allowed the Interim Report to be completed in a timely manner to meet the

1 September 30, 2011 deadline. It also allowed the Interim Report to be developed without
2 incurring significant costs for external consultant studies. Estimates of the cost of such
3 studies were several hundred thousand dollars per operating company (KCP&L and
4 GMO) in order to develop the information described in the analysis plan.

5 **Q: Were all elements of the analysis plan carried out by the Company, including both**
6 **the analysis originally defined in the Stipulations and the expanded scope agreed**
7 **upon with the Staff and OPC?**

8 A: Yes, the entire analysis plan was followed and the results were filed by the Company,
9 which included both the original scope defined in the Stipulations and the expanded
10 scope defined in the analysis plan. In its filing, the Company documented where it relied
11 upon existing studies from external sources and where it developed benefit-cost results
12 internally. Copies of existing studies that were utilized are provided as attachments to the
13 Interim Report. An overall summary of the numerical results for each analysis category
14 is provided as Attachment B to the filed Interim Report and are attached hereto as
15 Schedule CJL-2.

16 **Q: What time period was analyzed for the Interim Report?**

17 A: The Interim Report focused on the four year period from 2014 through 2017. This period
18 is consistent with the analysis plan and is pertinent for several reasons. First, 2014 is the
19 first calendar year subsequent to termination of the current Interim Period under the
20 Stipulations. Second, SPP's Integrated Marketplace is scheduled to begin in March 2014.
21 Finally, the four-year period includes the planned completion and resulting rate impacts
22 of major SPP transmission upgrades including the Balanced Portfolio and Priority

1 Projects. The dollar amounts shown in the summary results are expressed as average
2 annual values for that period and are not adjusted to a present value basis.

3 **Q: Please describe briefly each of the benefit-cost analysis categories that are shown in**
4 **Schedule CJL-2.**

5 A: Numerous information sources, models, and analyses were utilized in developing the
6 information presented in the Interim Report, as documented in the report and its
7 attachments. The following is a short description of each category included in the
8 Interim Report.

9 (i) Reliability Services. Reliability services are composed of a reliability
10 coordination component and a reserve sharing component. The reliability coordination
11 component is based on estimates of the cost that the Company would have to incur on an
12 annual basis in order to provide the reliability coordination services as a stand-alone
13 entity. The reserve sharing component is based on estimates of the additional cost the
14 Company would have to incur if it were to participate in the SPP Reserve Sharing Group
15 as a non-RTO member, including both reserve sharing fees and incremental point-to-
16 point transmission service charges. As shown in Exhibit B, the total of these two
17 components is approximately \$1.2 million per year of incremental cost if the Company
18 were to operate on a stand-alone basis. High and low cases were not developed for this
19 category.

20 (ii) Power Market Operations. This category is entitled “Power Market
21 Operations” in order to include ancillary services and energy as well as transmission
22 costs associated with current power supply arrangements. This general category is
23 analyzed on the basis of subcategories including energy imbalance service, future

1 markets, consolidated balancing authority, cost to implement future markets, and
2 transmission charges for existing resources. The energy imbalance service line reflects
3 the efficiencies associated with SPP's current EIS market, which would not be available
4 were the Company to leave SPP. The future markets line reflects the efficiencies of
5 SPP's planned Integrated Marketplace over and above the market efficiencies that are
6 now being achieved through the EIS market. These benefits from the future markets
7 would be derived from several elements of the Integrated Marketplace, including SPP
8 regional commitment of generating units and co-optimization of ancillary services with
9 energy supply. Sufficient information was available from both existing studies and the
10 Company's internal analysis (which follows the analytical approach defined in the
11 Stipulations as discussed in the testimony of James W. Okenfuss) to allow the Company
12 to develop high, low, and mid-point estimates for the energy imbalance service and future
13 markets subcategories, as shown in Exhibit B. The consolidated balancing authority line
14 represents both the manpower savings associated with SPP performing the balancing
15 (control area) function, as opposed to the Company performing that function stand-alone,
16 and the savings associated with a lower amount of load regulation due to SPP's planned
17 balancing authority consolidation in the Integrated Marketplace. The line for the cost to
18 implement future markets is an annualized amount representing the incremental capital
19 and operating cost that would be incurred by the Company in order to implement and
20 participate in the Integrated Marketplace. This incremental cost could be partially
21 avoided were the Company to exit SPP immediately. The line for transmission charges
22 for existing resources is a projection of the point-to-point transmission service charges
23 that would be incurred due to service from existing network resources located in areas

1 where SPP service would be required for future importation of the power. This is an
2 incremental cost for stand-alone operations because the transmission service would have
3 to be converted to point-to-point from network, and the Company does not have to incur
4 this point-to-point transmission service cost while it remains under SPP network service.
5 For these last three lines in the Power Market Operations category (consolidated
6 balancing authority, cost to implement future markets, and transmission charges for
7 existing resources) the Company developed a single estimate rather than a high and low
8 range.

9 (iii) Transmission Facility Upgrades. The transmission upgrades category
10 consists of three components: benefit of SPP projects, cost of SPP projects, and cost of
11 stand-alone operation. The benefits of SPP projects were limited to those that have been
12 projected by SPP for two primary project groups referred to as the “Balanced Portfolio”
13 and the “Priority Projects.” Other SPP-directed transmission upgrades also provide
14 benefits to the Company, but such estimates have not been developed by SPP and are not
15 included here. The reports prepared at the time of approval of the Balanced Portfolio and
16 Priority Projects included projections of the benefits resulting from construction of these
17 transmission facilities, with disaggregated benefits provided for each individual
18 transmission zone. The projections in these reports are the basis for the transmission
19 upgrade benefits shown for KCP&L and GMO in Exhibit B. The amounts projected for
20 the cost of SPP projects are based on forecasts of the annualized transmission costs
21 associated with SPP-directed projects that will be charged to the KCP&L and GMO
22 transmission zones. This includes costs of the Balanced Portfolio and Priority Projects as
23 well as other SPP-directed projects. The line entitled “Cost of Stand-Alone Operation” is

1 driven by the need to obtain transmission service for new renewable power resources that
2 would be placed in service before the end of the forecast period in 2017. It is assumed
3 that these resources would be located in the high plains western region of SPP.
4 Therefore, the costs associated with this item reflect forecasted rates for SPP transmission
5 service, including the cost of SPP-directed upgrades that would be included in such rates.
6 High and low cases are not provided for the transmission upgrades category because only
7 limited information is available for such alternative cases.

8 (iv) SPP Exit Fees. The fees that would be assessed to KCP&L and GMO upon
9 exiting the SPP RTO were estimated by SPP based on existing provisions of the SPP
10 Membership Agreement and Tariff. The annual cost is reflected in Exhibit B by
11 assuming a seven-year amortization of the one-time fees. As noted in the Company's
12 Interim Report, the framework for assessing exit fees and other conditions of leaving the
13 SPP RTO are under review through the SPP stakeholder process.

14 (v) Administrative Costs. This category captures the difference in cost due to SPP
15 provision of such services as tariff administration, transmission service studies, billing
16 and settlements, scheduling, and regional transmission planning. Currently, the Company
17 pays for such functions through the charges under Schedule 1A of the SPP Tariff.
18 However, this cost is offset to a large extent by costs the Company is not required to
19 incur due to SPP's provision of these services. The sources utilized by the Company in
20 preparing the Interim Report had various estimates of the costs for these functions, which
21 allowed the Company to develop a high-low range of net cost for this category. In
22 addition to the variation in estimates for the above services, a portion of the range is

1 attributable to a potential change in FERC policy regarding its assessments on entities not
2 participating in an RTO.

3 (vi) Additional Factors. The Company looked at two additional areas where the
4 potential exists for significant impact on the Company. These are both subject to
5 significant uncertainty but are worthy of consideration due to their potential magnitude.
6 In Exhibit B, the item labeled “Cost Allocation Review” was included in the high and
7 mid-point cases as a result of SPP’s newly created process to conduct periodic evaluation
8 of the benefit-cost balance of projects it authorizes in order to maintain a degree of equity
9 across the region and over time. This review process is to be conducted at least once
10 every three years, which could provide the Company some measure of benefit during the
11 forecast window of the Interim Report. The item labeled “Impact on Wholesale
12 Transactions” was developed because there are multiple challenges in power trading
13 activity outside an RTO market that are not fully captured in standard cost-benefit
14 studies. These challenges include such elements as diminished transmission service
15 priority, transaction costs, and price risk. When crossing a seam into or out of an RTO,
16 each of these elements can present a barrier to power transactions. As described in the
17 testimony of James W. Okenfuss, values were developed to represent these impacts, with
18 recognition that the effects of such market elements are not as readily quantifiable as
19 other components of the Interim Report.

20 **Q: What determination is supported by the results of the Interim Report?**

21 A: When the annual impact values in the various analysis categories discussed above are
22 totaled, the mid-point estimate indicates net benefits of approximately \$15 million for
23 KCP&L, \$8 million for GMO, and \$23 million for the Company in aggregate each year

1 during the 2014-2017 analysis period. As shown in Schedule CJL-2, the low case for the
2 Company is an annual net detriment of about \$4 million and the high case for the
3 Company is an annual net benefit of about \$50 million. In summary, the analysis
4 indicates that continued participation in SPP is likely to result in substantial benefit to the
5 Company and its customers over the entire four-year analysis period with relatively small
6 downside risk and the potential for net benefits approaching \$200 million in total over the
7 four years. Thus, on the basis of these results from the work performed to meet the
8 analysis plan, the Company's continued participation in SPP is justified.

9 **Q: Does that conclude your testimony?**

10 **A:** Yes, it does.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the Application of Kansas)
City Power & Light Company for)
Authority to Extend the Transfer of) Case No. EO-2012-0135
Functional Control of Certain Transmission)
Assets to the Southwest Power Pool, Inc.)

In the Matter of the Application of KCP&L)
Greater Missouri Operations Company for)
Authority to Extend the Transfer of) Case No. EO-2012-0136
Functional Control of Certain Transmission)
Assets to the Southwest Power Pool, Inc.)

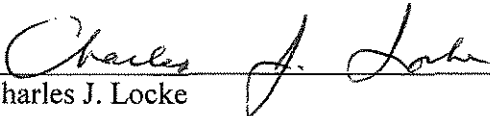
AFFIDAVIT OF CHARLES J. LOCKE

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

Charles J. Locke, being first duly sworn on his oath, states:

1. My name is Charles J. Locke. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company Manager, Regulatory Affairs.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company consisting of thirteen (13) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.



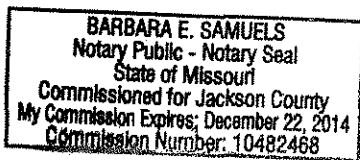
Charles J. Locke

Subscribed and sworn before me this 2nd day of October, 2012.



Notary Public

My commission expires: December 22, 2014



Benefit-Cost Analysis of Kansas City Power & Light and KCP&L GMO Participation in Southwest Power Pool

Kansas City Power & Light Company (KCP&L) and KCP&L Greater Missouri Operations Company (GMO) plan to implement the following alternative approach in order to address the requirements of the current SPP membership stipulations (Case Nos. EO-2006-0142 and EO-2009-0179) and suggestions from the Missouri Public Service Commission Staff and Office of Public Council:

- 1) Develop a wider scope of benefit-cost analysis beyond the stipulated Energy Imbalance Service (EIS) market analysis of a historical year.
- 2) Utilize a value proposition approach in structuring the analysis to include a full spectrum of elements with a bearing on the benefits and costs of Regional Transmission Organization participation.
- 3) Control the cost to perform the analysis by utilizing existing studies where available and developing estimates internally for the remaining components of the analysis.

As described in greater detail below, this alternative method not only broadens the analysis but also avoids the unnecessary expense of hiring a third party consultant to perform studies that already exist. In addition, it allows the use of information specific to KCP&L and GMO where helpful and practical.

The following are elements that would be needed in this analysis in order for KCP&L and GMO to estimate benefits and costs of SPP membership:

Reliability Services

Reliability Coordination

Reserve Sharing

Energy Markets

Energy Imbalance Service Operational Benefits and Costs

Day-Ahead and Ancillary Services Operational Benefits and Costs

Balancing Authority Consolidation

Market Operation Costs—Both Internal and External

Incremental Impact of Transmission Charges

Incremental Impact of Lower Priority Transmission Service on Power Transactions

Transmission Upgrades

Benefits of Transmission Upgrades

Costs of Transmission Upgrades

SPP Exit Fees

Additional Cost Applicable to the Stand-Alone Case

Administrative Costs

Transmission Planning

Tariff Administration and FERC Regulatory Services

Scheduling, Dispatch, and System Control

FERC and NERC Compliance

Settlements

Each of these elements will be analyzed for both an SPP membership case and a stand-alone operations case. The net benefits and costs of these elements then will be summed for the SPP case and for the stand-alone case in order to create a total value comparison. Where practical, it will be helpful to attach ranges to these valuations in order to reflect the reality of significant uncertainty behind the estimates. The time horizon of the study will extend until 2016 or 2017, which is long enough to capture the expected completion of projects with currently issued Notifications to Construct.

Reliability Services Analysis

The estimated value of reliability coordination services can be taken from existing studies of these services and supplemented with KCP&L and GMO specific information if appropriate. In the case of reserve sharing services, the incremental cost in the stand-alone case likely will be only the cost of transmission service necessary for reserve sharing support.

Energy Markets Analysis

For the energy markets analysis, existing studies can be utilized to a large extent. There are two different analyses that looked at the EIS market specifically—the study that was performed by CRA International prior to market start and a study that was completed by SPP and Boston Pacific after the first year of market operations. The CRA study was a more thorough analysis and produced more detailed results. For example, it included GMO (Aquila) in a special set of scenarios and it produced results for individual market participants. Although the post-implementation study excluded GMO and produced results on a regional basis only, it has the advantage of more recent vintage and being tied to actual market results. In addition, the gas prices underlying the two studies are somewhat different—prices in the later study were about 20 percent higher than the earlier study. These two studies will be referenced in a complementary fashion, perhaps to create an estimated range of benefits associated with the EIS market. In addition, an analysis will be conducted by the Company to estimate system production costs both with and without the EIS market. This study will cover the scope detailed in the Stipulation and Agreement by looking at a recent 12-month period.

The day-ahead and ancillary service market impacts for all companies in the region were analyzed in a 2009 Ventyx study. The base case in this study is the EIS market, with the change cases looking at different combinations and timing of day-ahead and ancillary service markets. Change Case IIA, with the start date moved to 2014, is the most appropriate scenario to use because it corresponds to SPP's current plans for future markets. This study's results may be supplemented in the near future with analysis to quantify the potential impact of gas price changes. The Ventyx study results are

available for both KCP&L and GMO. The Ventyx market benefits can be added to those resulting from the EIS studies mentioned above to create an estimate of the total benefits related to the future markets planned by SPP.

There also is a GMO-specific study performed by CRA in 2007 that includes the benefits of a real-time market with security-constrained economic dispatch. This essentially captures the benefits of the EIS market. In addition, this CRA study includes the benefits of other market structures, such as a day-ahead market with unit commitment, which SPP is planning to implement in 2014. This study will be referenced in a complementary manner to provide another estimate of the benefits for GMO attributable to the upcoming SPP markets.

The consolidated balancing authority has the potential to reduce costs as compared to the current framework of individual balancing authority areas. SPP has developed estimates of this potential cost savings, which is available for inclusion in the analysis.

In addition to the existing market operations studies, other factors need to be incorporated in order to provide a valid comparison between the SPP case and the stand-alone case:

1) Current estimates of both internal and external costs to implement the SPP day-ahead and ancillary service markets and the consolidated balancing authority will be added to the cost side of the SPP case. Potentially offsetting a portion of those new market costs, the stand-alone case may entail additional administrative costs to manage interfaces between the companies and multiple RTO markets.

2) Stand-alone operations would involve significant incremental transmission charges because of the need to cross tariff boundaries for the purpose of importing power to and exporting power from the KCP&L and GMO transmission systems. These costs will be added to the stand-alone case to the extent they are not already incorporated in the EIS study.

3) Transmission service priority can have a material impact on market operations. Potential counterparties are less likely to enter into transactions with KCP&L and GMO when the transmission path crosses a tariff boundary because of the inability to secure a path that is as firm as they could obtain if transacting with another party in the SPP footprint. This impact will be added to the stand-alone case and may require some additional study with the MIDAS model.

Transmission Upgrades Analysis

The work performed by the Regional State Committee's Rate Impact Task Force (RITF) can serve as a key component of this analysis because it reflects projected costs of projects in the 2010 SPP Transmission Expansion Plan (SPP Board approved in early 2011). It also reflects the benefits of such projects, but only to the extent those benefits have been quantified by SPP studies (i.e., only Balanced Portfolio and Priority Project benefits).

Corresponding projections will be needed for a stand-alone case in order to compare to the SPP case represented by the RITF estimates. This will involve developing projections of the transmission upgrades and transmission service charges that would be

incurred as a result of operating stand-alone. The stand-alone requirements would be driven primarily by the need to provide reliable transmission service to KCP&L and GMO customers under NERC and Regional Entity standards and to meet state-mandated renewable energy standards. However, economic upgrades also may be considered in the stand-alone scenario.

An uncertainty in this area is whether and how cost impacts may be shifted or mitigated as a result of the provisions in the SPP Tariff, Attachment J, Section III.D (entitled "Review of Base Plan Allocation Methodology"). This element may be documented as a non-quantified factor in the analysis.

SPP Exit Fees Analysis

For the stand-alone case, an estimate of potential exit fees will be necessary. It is expected that the framework for such fees will soon be clarified by the SPP stakeholder discussions now addressing this issue. The cost assumptions underlying this component should be consistent with those in other sections of this study, such as cost assumption regarding transmission upgrades.

Administrative Costs Analysis

Projections of the fees under SPP Schedule 1-A (excluding the day-ahead and ancillary service market components) will be compared to estimates of the costs that will be incurred by KCP&L and GMO if they have to provide their own transmission planning, tariff administration, scheduling and system control, compliance work, and transmission settlements as a stand-alone entity. In developing these projections, estimates utilized in other proceedings will be reviewed, such as those in the SPP study by CRA, those in the GMO (Aquila) study by CRA, and estimates included in AmerenUE's recent Missouri dockets addressing RTO participation.

Factors Not Explicitly Quantified

Not all factors that have a bearing on the benefits and costs of RTO participation may be readily quantifiable. Where such factors are identified but not included in the numeric analysis, they will be identified as additional considerations with an indication of the potential impact and direction in which the results likely would be affected.

**Average Annual Benefits (Costs) to Kansas City Power & Light and KCP&L Greater Missouri Operations
from Participation in Southwest Power Pool in Comparison to Stand-Alone Status, 2014-2017
(\$ Thousands)**

	Low Estimate			High Estimate			Mid-Point		
	KCP&L	GMO	Total	KCP&L	GMO	Total	KCP&L	GMO	Total
Reliability Services									
Reliability Coordination	\$ 703	\$ 371	\$ 1,073	\$ 703	\$ 371	\$ 1,073	\$ 703	\$ 371	\$ 1,073
Reserve Sharing	\$ 91	\$ 65	\$ 156	\$ 91	\$ 65	\$ 156	\$ 91	\$ 65	\$ 156
Subtotal	\$ 794	\$ 436	\$ 1,229	\$ 794	\$ 436	\$ 1,229	\$ 794	\$ 436	\$ 1,229
Power Market Operations									
Energy Imbalance Service	\$ 2,157	\$ 300	\$ 2,457	\$ 8,550	\$ 6,211	\$ 14,761	\$ 5,353	\$ 3,255	\$ 8,609
Future Markets	\$ 16,368	\$ 2,433	\$ 18,801	\$ 24,667	\$ 5,639	\$ 30,306	\$ 20,517	\$ 4,036	\$ 24,553
Consolidated Balancing Authority	\$ 557	\$ 381	\$ 938	\$ 557	\$ 381	\$ 938	\$ 557	\$ 381	\$ 938
Cost to Implement Future Markets	\$ (2,018)	\$ (1,064)	\$ (3,082)	\$ (2,018)	\$ (1,064)	\$ (3,082)	\$ (2,018)	\$ (1,064)	\$ (3,082)
Trans. Charges for Existing Resources	\$ 3,690	\$ 11,394	\$ 15,084	\$ 3,690	\$ 11,394	\$ 15,084	\$ 3,690	\$ 11,394	\$ 15,084
Subtotal	\$ 20,754	\$ 13,443	\$ 34,197	\$ 35,446	\$ 22,560	\$ 58,007	\$ 28,100	\$ 18,002	\$ 46,102
Transmission Facility Upgrades									
Benefit of SPP Projects	\$ 16,650	\$ 2,135	\$ 18,785	\$ 16,650	\$ 2,135	\$ 18,785	\$ 16,650	\$ 2,135	\$ 18,785
Cost of SPP Projects	\$ (40,660)	\$ (17,418)	\$ (58,078)	\$ (40,660)	\$ (17,418)	\$ (58,078)	\$ (40,660)	\$ (17,418)	\$ (58,078)
Cost of Stand-Alone Operation	\$ 5,398	\$ 3,147	\$ 8,545	\$ 5,398	\$ 3,147	\$ 8,545	\$ 5,398	\$ 3,147	\$ 8,545
Subtotal	\$ (18,611)	\$ (12,136)	\$ (30,747)	\$ (18,611)	\$ (12,136)	\$ (30,747)	\$ (18,611)	\$ (12,136)	\$ (30,747)
SPP Exit Fees	\$ 1,399	\$ 799	\$ 2,198	\$ 1,399	\$ 799	\$ 2,198	\$ 1,399	\$ 799	\$ 2,198
Administrative Costs	\$ (7,124)	\$ (3,870)	\$ (10,995)	\$ (3,582)	\$ (2,007)	\$ (5,589)	\$ (5,353)	\$ (2,938)	\$ (8,292)
SUBTOTAL	\$ (2,790)	\$ (1,328)	\$ (4,118)	\$ 15,446	\$ 9,652	\$ 25,098	\$ 6,328	\$ 4,162	\$ 10,490
Additional Factors									
Cost Allocation Review	\$ -	\$ -	\$ -	\$ 5,090	\$ 2,230	\$ 7,320	\$ 2,545	\$ 1,115	\$ 3,660
Impact on Wholesale Transactions	\$ -	\$ -	\$ -	\$ 12,336	\$ 4,935	\$ 17,271	\$ 6,168	\$ 2,468	\$ 8,636
Subtotal	\$ -	\$ -	\$ -	\$ 17,426	\$ 7,165	\$ 24,591	\$ 8,713	\$ 3,583	\$ 12,296
TOTAL	\$ (2,790)	\$ (1,328)	\$ (4,118)	\$ 32,872	\$ 16,818	\$ 49,690	\$ 15,041	\$ 7,745	\$ 22,786