

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

In the Matter of the Resource Plan of)
Kansas City Power & Light Company) Case No. EO-2007-0008
Pursuant to 4 CSR 240-22)

STAFF REPORT

Comes now the Staff of the Missouri Public Service Commission (Staff) and files its Report (Highly Confidential and Non-Proprietary versions) regarding the Chapter 22 Electric Utility Resource Planning compliance filing made by Kansas City Power & Light Company (KCPL) on July 5, 2006. In support thereof, the Staff states as follows:

1. 4 CSR 240-22.080(5) provides that the Staff shall review each utility's compliance filing and shall file a report no later than 120 days after each utility's scheduled electric resource plan filing date that identifies, among other things, any deficiencies in the electric utility's compliance with the provisions of Chapter 22 of the Commission's rules.

2. 4 CSR 240-22.080(6) provides that the Office of the Public Counsel (Public Counsel) and any intervenor may file a report or comments no later than 120 days after each utility's scheduled electric resource plan filing date that identifies, among other things, any deficiencies in the electric utility's compliance with the provisions of Chapter 22 of the Commission's rules.

3. On October 31, 2006, the Missouri Department of Natural Resources and the Public Counsel filed a Motion For Extension Of Time requesting until November 15, 2006 to respond to the July 5, 2006 filing of KCPL.

4. On November 1, 2006 the Commission issued an Order Granting Extension Of Time, granting until November 15, 2006 for parties to file pursuant to 4 CSR 240-22.080(5) and (6).

5. The Staff Report (Highly Confidential and Non-Proprietary versions) accompanying this pleading, as Appendix A, identifies, among other things, deficiencies in KCPL's July 5, 2006 compliance filing relating to the provisions of Chapter 22 of the Commission's rules, and also addresses KCPL's requests for extensions of time and waivers from certain of the requirements of Chapter 22 contained in KCPL's Application For Extensions Of Time And Waivers Concerning Certain Of The Commission's Integrated Resource Plan Reporting Requirements filed on July 5, 2006.

WHEREFORE, the Staff herewith files its Staff Report (Highly Confidential and Non-Proprietary versions) respecting its review of KCPL's July 5, 2006 compliance filing respecting the Commission's Chapter 22 Electric Utility Resource Planning rules.

Respectfully submitted,

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Certificate of Service

I hereby certify that copies of the foregoing have been mailed first class postage prepaid, hand-delivered, transmitted by facsimile, or electronically sent to all counsel of record this 15th day of November 2006.

/s/ Steven Dottheim

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT ON

**KANSAS CITY POWER & LIGHT COMPANY'S
INTEGRATED RESOURCE PLANNING
COMPLIANCE FILING**

CASE NO. EO-2007-0008

NOVEMBER 15, 2006

JEFFERSON CITY, MISSOURI

**** Denotes Highly Confidential ****

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APPENDIX A

Table of Contents

Overview	1
Regulatory Plan and KCPL’s Resource Plan Filing.....	4
Waiver Request	5
Areas of Deficiencies.....	9
4 CSR 240-22.030 Load Analysis and Forecasting	12
4 CSR 240-20.040 Supply-Side Resource Analysis	14
4 CSR 240-22.050 Demand-Side Analysis.....	21
4 CSR 240-22.060 Integrated Resource Analysis.....	25
4 CSR 240-22.070 Risk Analysis and Strategy Selection.....	27

Page 2

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Page 3

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Regulatory Plan and KCPL's Resource Plan Filing

Over the 12 months prior to its required filing, KPCL had discussions with Staff and the Office of the Public Counsel (Public Counsel) regarding how KCPL intended to meet the requirements of the Electric Utility Resource Planning rules. KCPL believed then, as it does now, that what was defined in its Regulatory Plan case (Case No. EO-2005-0329) Stipulation and Agreement as the "Resource Plan," fulfilled its requirements for this resource plan filing. However, Staff does not agree with KCPL.

In the Stipulation and Agreement, "Resource Plan" is defined as:

... the capital investments and customer programs contained in this Agreement, as more fully described in Paragraph III.B.4 "Timely Infrastructure Investments" and Paragraph III.B.5 "Demand, Response, Efficiency, and Affordability Programs."

This is what KCPL, in its resource planning case, Case No. EO-2007-0008, refers to as the "Comprehensive Energy Plan". In its Resource Plan filing, KCPL states that it believes that its Comprehensive Energy Plan largely satisfies the Commission's integrated resource planning reporting requirements.

The Staff disagrees that the "Resource Plan", as defined in the Stipulation and Agreement in the regulatory plan case, constitutes a "Comprehensive Energy Plan" and that it largely satisfies the Commission's Chapter 22 filing requirements for several reasons.

- Chapter 22 requires a 20 year analysis. The infrastructure investments listed in Paragraph III.B.4 all take place from January 1, 2005 through December 1, 2009. The implementation of the Demand Response Programs and potential Energy Efficiency and Affordability programs in the Stipulation and Agreement was limited to 2005 through 2010. Nowhere in the Stipulation and Agreement does KCPL lay out its 20 year analysis or what it intends to do to plan for its needs after 2014.
- While there are Demand Response, Efficiency and Affordability Programs listed in the Regulatory Plan, the Stipulation and Agreement required more evaluation

of the Energy Efficiency and Affordability programs before they could be implemented. These programs were not integrated with the supply-side resources in the analysis of the Resource Plan.

- KCPL did not supply the information required by Chapter 22 for the review of the Resource Plan in its Regulatory Plan. Therefore, when the Staff was reviewing the Resource Plan in KCPL's Regulatory Plan, it could not determine if the Resource Plan met certain requirements of Chapter 22.
- The Capacity Balance sheet (attached as Table 1) shows that KCPL will need additional capacity as soon as ** ____ **. In the Stipulation and Agreement, KCPL did not state how it would meet its needs after ** ____ **. That is less than nine years from now. If the optimal resource type to meet the additional need would be a base load plant (coal or nuclear), it is not too soon for KCPL to begin the early phases of the construction planning process.

For these reasons, Staff does not agree with KPCL that the Resource Plan in the Regulatory Plan, satisfies the requirements of Chapter 22.

Waiver Request

Even though KCPL believes that its Resource Plan largely satisfied the requirements of Chapter 22, KCPL requested waivers from Chapter 22. It was unclear in the request for waivers filed on July 5, 2006 what exactly KCPL wanted waivers from. If anything, the filing seemed to request time extensions for meeting the Chapter 22 requirements.

On July 18, 2006, the Commission issued an order requiring a Staff recommendation regarding KCPL's request for waivers and extension of filing deadlines by August 17, 2006, and scheduled a prehearing conference for August 21, 2006. Because of the press of other matters, the extent of the waiver requests and general confusion regarding the waiver request, Staff asked for, and received, an extension for filing its recommendation until after the prehearing conference. Staff, Public Counsel and KCPL discussed the waiver requests by phone before the prehearing conference and at the prehearing conference. In these discussions KCPL clarified what it was requesting and agreed to

send Staff and Public Counsel additional information. Staff filed a status report on August 28, 2006, informing the Commission that it had not received the additional information that it needed regarding the waivers. The Commission then ordered another status report be filed by September 15, 2006.

Late in the afternoon on September 14, 2006, KPCL sent an email with additional information requested by Staff and Public Counsel to better understand the filing and the waiver requests. Staff filed a status report the next day informing the Commission that it had just received the additional information. The following table, received from KCPL on September 14, 2006, clarifies what KCPL is requesting.

Table 2
Waiver Request Clarification

Load Analysis and Forecasting (4 CSR 240-22.030)	KCPL requests a one-time waiver from the requirement in 4 CSR 240-22.030(1)(C)2.A. to incorporate a nonlinear function. KCPL also requests a one-time waiver from the requirement in 4 CSR 240-22.030(8) to produce the plots and tables specified in that section.
Supply-Side Resources Analysis (4 CSR 240-22.040)	KCPL requests a 23-month extension of time to furnish the information required under 4 CSR 240-22.040(9).
Demand-Side Resource Analysis (4 CSR 240-22.050)	KCPL believes it has satisfied the requirements of 4 CSR 240-22.050. However, KCPL requests waiver of any reporting requirements under that section that the Commission deems necessary.
Integrated Resource Analysis (4 CSR 240-22.060)	KCPL respectfully requests a 23-month extension of time to furnish the information required under 4 CSR 240-22.060(6).
Risk Analysis and Strategy Selection (4 CSR 240-22.070)	KCPL respectfully requests a 23-month extension of time to furnish the information required under 4 CSR 240-22.070(11).

The request for 4 CSR 240-22.030(1)(C)2.A. is for a waiver from a process described in the rule. For the load analysis and forecasting rule, 4 CSR 204-22.030, KCPL is asking for a waiver from filing the plots and tables specified in the reporting requirements in 4 CSR 240-22.030(8). These plots and tables are the main tool for showing compliance with the load analysis and forecasting rule. KCPL believes that it is in compliance with

the Demand-Side Analysis rule 4 CSR 240-22.050, but just in case it is deemed not to be in compliance, KCPL is asking for a waiver from whatever may be held missing from the reporting requirements of the Demand-Side Analysis rule. In the Supply-Side Analysis rule 4 CSR 240-22.040, Integrated Resource Analysis rule 4 CSR 240-22.060, and the Risk Analysis and Strategy Selection rule 4 CSR 240-22.070, KCPL is asking, not for waivers from the requirements, but for an extension of the filing deadline of 23-months.¹

It is Staff's understanding, from the discussions with KCPL, that if KCPL is granted the extension of time for the filing requirements of the other rules in Chapter 22, it would supply a new forecast and the supporting documentation requirements in the load analysis and forecasting rule

KCPL asked to delay the filing of the supply-side requirements (4 CSR 240-22.040(9)) for 23-months. The delay was requested so that KCPL could incorporate the results of the evaluation of ** _____ **. A 23-month extension was also requested for the filing requirements of the Integrated Resource Analysis rule (4 CSR 240-22.060(6)) and the Risk Analysis and Strategy Selection rule (4 CSR 240-22.070(11)) because KCPL is in the process of evaluating "several significant supply-related issues." It is KCPL's belief that it cannot complete its Integrated Resource Analysis or Risk Analysis and Strategy Selection without that information.

Subsequent to the filing of the September 15 Status Report, Staff met internally and determined that since it was nearing the Staff Report filing deadline of November 2, 2006, and there were other pressing matters that Staff was dealing with in rate cases before the Commission, Staff would address the waivers in its Report.

Staff agrees that integration and risk analysis and strategy selection cannot be accurate if supply-related issues are still unresolved. However, Staff believes that resource planning should be a continuous process. At any given time, any electric utility should have an

¹ Twenty-three (23) months was chosen based on the assumption that Aquila will file a single resource plan for both its MPS and L&P divisions together. Twenty-three (23) months from KPCL's filing would have been St. Joseph Light & Power Company's (SJLP) filing date.

integrated resource plan that includes an analysis of risk and contingency plans. If there are unresolved areas, the risk in these areas are greater. Identification of risks and the effect of mitigating risk in these areas should help the utility determine where its resources would be best spent to reduce the risk of its current resource plan. Resource planning should be a dynamic process and at any given time, an electric utility should be able to identify and articulate its current plan. As additional information becomes available, the plan should be re-evaluated and updated given that information.

However, given the fact that KCPL has filed stating that it does not have the information to meet the filing requirements, Staff finds little reason to attempt to require KCPL to file information that it does not have. While KCPL could be ordered to meet the filing requirements sooner than the 23 months it proposes, with the press of rate cases before the Commission, the still unresolved Union Electric Company d/b/a AmerenUE electric resource plan case (Case No. EO-2006-0240), and the quickly approaching Chapter 22 electric utility resource planning filing of Aquila, Inc. in February 2007, Staff recommends that the Commission allow KCPL the extension of time for the provision of the filing requirements for Supply-Side Analysis (4 CSR 240-22.040(9)), Integrated Resource Analysis (4 CSR 240-22.060(6)) and Risk Analysis and Strategy Selection (4 CSR 240-22.070(11)) with the following conditions:

- The information must be filed with the Commission on or before June 5, 2008.
- KCPL must make a good faith effort to request waivers or extensions for the June 5, 2008 filing by June 5, 2007. All waiver requests must be filed by December 5, 2007.
- KCPL must provide in this filing, and all subsequent Resource Plan filings, an explanation of which part of KCPL's filing satisfies the requirements of which part of the Chapter 22 rules.
- KCPL must provide all appropriate workpapers at the time of this filing and all subsequent resource plan filings, in electronic format with all formulas intact to allow Staff and other parties the opportunity to review KCPL's methodologies.
- Load analysis and forecasting requirements (4 CSR 240-22.030(8)) must be updated and included in the filing.

- Demand-side analysis must be updated in the filing. This update must reflect information from evaluations of current demand-side programs that are performed in time to use for adjusting, if necessary, the demand-side resources that are analyzed in integrated and risk analysis.
- Some alternative plans that are assessed in integration and risk analysis must be designed to address future risks of additional environmental regulations and adverse changes in the price and/or availability of fossil fuels.
- Integrated and risk analysis must assess the long run cost and risk mitigation benefits of nuclear generation, integrated gasification combined cycle (IGCC) with sequestration, and renewables.

Areas of Deficiencies

There are large sections of the rules that Staff is not able to verify KCPL's compliance with because of KCPL's waiver request. However, Staff did review the information KCPL filed. In the sections of this Report that follow, Staff lists what requirements still need to be met by KCPL and what must be included in KCPL's June 5, 2008 filing. A brief description of these deficiencies is listed below.

1. Subclass forecasts 4 CSR 240-22.030 (1)(A)1. and 2. - KCPL did not forecast by subclass or provide an explanation for why it did not forecast at subclass level.
2. Weather normalization 4 CSR 240-22.030(1)(D)1. - KCPL has not shown that it has actual and weather-normalized monthly class and system energy usage and actual hourly net system loads from 1982 forward.
3. Nonlinear weather response function 4 CSR 240-22.030(1)(C)2.A. - KCPL has asked for a waiver from providing its nonlinear response function.
4. Load analysis and forecasting reporting requirements 4 CSR 240-22.030(8) - KCPL has asked for a waiver from providing a report containing plots of number of units, energy usage per unit and total class energy usage.
5. Supply-side cost estimates 4 CSR 240-22.040(1)(A-L) - KCPL did not show that its generic cost estimates include all required costs.
6. Analysis of supply-side options 4 CSR 240-22.040(1)(A-L) - KCPL did not show that it analyzed all supply-side options identified.

7. Busbar costs 4 CSR 240-22.040(2)(A) - Staff could not determine if busbar costs were included in KCPL's analysis.
8. Evaluation of environmental costs 4 CSR 240-22.040(2)(B) - KCPL's evaluation of environmental costs is incomplete.
9. Ranking of supply-side options 4 CSR 240-22.040(2)(C) - KCPL's ranking of supply-side options is incomplete.
10. Interconnection of potential resource options 4 CSR 240-22.040(3)(A-C) - KCPL provided no documentation of its analysis of existing and planned interconnection of potential resource options.
11. Life extension and refurbishment of existing plants 4 CSR 240-22.040(4) - KCPL's documentation of its analysis of life extension and refurbishment of existing plants is incomplete.
12. Request for Proposals (RFP) documentation 4 CSR 240-22.040(5)(A-G) - KCPL's documentation of its RFP is incomplete.
13. Transmission and distribution efficiency improvements 4 CSR 240-22.040(7) - KCPL provided no information regarding efficiency improvements in existing transmission and distribution facilities.
14. ** _____ ** 4 CSR 240-22.040(8)(A) - KCPL failed to include a discussion of ** _____ **.
15. Documentation of costs 4 CSR 240-22.040(8)(B)&(C) - KCPL did not provide comprehensive documentation of all costs.
16. Emission allowances 4 CSR 240-22.040(8)(D) - KCPL's analysis of forecasts of emission allowances is incomplete.
17. Leased or rented facilities 4 CSR 240-22.040(8)(E) - KCPL provided no documentation regarding annual fixed costs for leased or rented facilities.
18. Supply-side reporting requirements 4 CSR 240-22.040(9) - KCPL asked for an extension for the reporting requirements until June 5, 2008.
19. Demand-side analysis 4 CSR 240-22.050 - KCPL did not meet the specific requirements of the demand-side rule or provide an explanation of why the Commission should grant it a waiver from the specific requirements.
20. Market research 4 CSR 240-22.050(5) - KCPL did not document any market research.

21. End-use screening and avoided costs 4 CSR 240-22.050(1), 4 CSR 240-22.050(2)(A)1.- 2., (2)(C)2.A.-B. - KCPL did not conduct end-use screening or calculate avoided costs as required by the rule.
22. Load building evaluation 4 CSR 240-22.050(10) - KCPL did not evaluate the load building aspects of its demand-side programs.
23. Development of alternative resource plans 4 CSR 240-22.060(3) – Deficiencies in Supply-side and Demand-side analysis limits the development of alternative resource plans.
24. Alternative resource plans 4 CSR 240-22.060(3) – The alternative resource plans that were developed were limited.
25. Analysis of Load-Building Programs 4 CSR 240-22.060(5) – KCPL provided no documentation that it did any analysis of load building programs.
26. Integration Analysis filing requirements 4 CSR 240-22.060(6) - KCPL asked for an extension for the reporting requirements until June 5, 2008.
27. Decision-Makers Assessment of Risk 4 CSR 240-22.070(1) – KCPL provided no documentation on decision-makers consideration of the results of the resource plan or the decision makers determination that the assessments of these uncertainties were reasonable.
28. Expected Value of Better Information 4 CSR 240-22.070(8) – KCPL did not include any documentation of its analysis of the value of better information.
29. Environmental Compliance 4 CSR 240-22.070(10) – KCPL needs to conduct additional analysis on environmental compliance.
30. Contingency Analysis 4 CSR 240-22.070(10) - KCPL did not develop an adequate set of contingency options.
31. Risk Analysis and Strategy Selection filing requirements 4 CSR 240-22.070(11) - KCPL asked for an extension for the reporting requirements until June 5, 2008.

4 CSR 240-22.030 Load Analysis and Forecasting

Summary of Staff Findings

4 CSR 240-22.030, Load Analysis and Forecasting, has a stated purpose of “this rule sets minimum standards for the maintenance and updating of historical data, the level of detail required in analyzing and forecasting loads, and for the documentation of the inputs, components and methods used to derive the load forecasts.”

KCPL states on page 5, Attachment 1, of its filing that it expects its Gross Peak Demand to grow at an annual rate of 1.4% from 2006 – 2025. This means that KCPL expects its Gross Peak Demand to reach 4,746 MW in 2025. When KCPL accounts for Demand-Side Management (DSM) impacts, it expects its Net Peak Demand to be 4,583 MW in 2025.² On the energy side, KCPL expects an annual growth rate in the annual energy requirements of 1.5% between 2006 and 2025. By 2025, KCPL expects its gross system energy to reach 21,597.4 GWh and its net system energy (once DSM impacts are accounted for) to reach 21,531.9 GWh.

The model used by KCPL to forecast the hourly load peak demand forecast was developed using MetrixLT software.

Deficiencies in KCPL’s Filing

KCPL did not forecast by subclass or provide an explanation for why it did not forecast at subclass level. 4 CSR 240-22.030 (1)(A)1. and 2.

Paragraph (1)(A)1. of the rule requires that the utility shall determine what level of subclass detail is required for forecasting and what methods to use in gathering subclass information. Further paragraph (1)(A)2. states which types of subclasses the utility should consider. If the utility chooses subclasses that are different, the utility must explain the reasons for its choice of subclasses. Nowhere in the filing or in the workpapers provided by KCPL does KCPL indicate whether or not it used subclasses in

² KCPL’s peak demand forecast is shown on Table 1 as “Projected Internal Demand.” Its estimated demand accounting for DSM impacts is shown as “Peak Responsibility (KCPL Demand Forecast).”

its forecast. KCPL must either provide the required subclass information or provide an explanation as to why it did not utilize subclasses in its forecast.

KCPL has not shown that it has actual and weather-normalized monthly class and system energy usage and actual hourly net system loads from 1982 forward. 4 CSR 240-22.030(1)(D)1.

Paragraph (1)(D)1. states that actual and weather-normalized monthly class and system energy usage and actual hourly net system loads shall start from January 1982. Staff did not find this data in the filing or the workpapers provided by KCPL. If KCPL does not have the information required by 4 CSR 240-22.030(1)(D)1., KCPL must ask for a waiver and provide an explanation as to why it does not have data from 1982 forward.

KCPL has asked for a waiver from providing its nonlinear response function. 4 CSR 240-22.030(1)(C)2.A.

In its waiver request, KCPL asks for a waiver from the requirement 4 CSR 240-22.030(1)(C)2.A. This requirement requires a nonlinear response function be used in the estimate of the effect of weather on class and system loads. This is an important aspect of the filing because the effect of weather on most classes and system loads are nonlinear. Without the nonlinear response function it is hard to evaluate the effects of weather on the class and system loads due to changes in daily and seasonal weather variations. KCPL must file its nonlinear response function by June 5, 2008.

KCPL has asked for a waiver from providing a report containing plots of number of units, energy usage per unit and total class energy usage. 4 CSR 240-22.030(8)

In its waiver request, KCPL asks for a waiver from 4 CSR 240-22.030(8). This requirement requires the utility to produce plots and tables of number of units, energy usage per unit, and total class energy usage. This is an important aspect of the filing because this is a way for interested parties to review the results of the Company's analysis. Without the information requested in this section of the rule, it is extremely difficult to evaluate the overall forecast. KCPL must file its plots and tables by June 5, 2008.

4 CSR 240-20.040 Supply-Side Resource Analysis

Summary of Staff Findings

This portion of the Electric Utility Resource Planning Rules requires the utility to review alternative resources and determine cost estimates for each type of resource in order to include these resources in determining a Preferred Resource Plan. KCPL's filing identifies the Preferred Resource Plan as ** _____

_____ **

The initial list of potential supply-side resources included both subcritical and supercritical pulverized coal technologies, IGCC technology, circulating fluidized bed coal technology, single cycle combustion turbine technology, combined cycle technology, nuclear technology, wind technology, solar technology, and other energy storage technologies. ** _____

_____ **

Deficiencies in KCPL's Filing

KCPL did not show that its generic cost estimates includes all required costs. 4 CSR 240-22.040(1)(A-L)

KCPL provided information from a technology overview document dated February 2002³. In this document, 15 technologies are identified and costs associated with each of the technologies are estimated. All but one of the listed technologies do not have information for waste generation (4 CSR 240-22.040(1)(K)2.), water impacts (4 CSR 240-22.040(1)(K) 3.), or siting impacts (4 CSR 240-22.040(1)(K)4.). Some technologies are missing other information. Table 3 lists the technologies and the information that is missing.

³ While the document was provided, KCPL did not include a cover sheet with the title of the document. It was filed as Part 6 of KCPL's resource plan filing. Staff refers to this document as the "Technology Overview"

Page 15

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KCPL did not show that it analyzed all supply-side options identified. 4 CSR 240-22.040(1)(A-L)

The documents KCPL supplied do not include discussions of life extension and refurbishments at existing plants; enhancement of the emission controls at existing plants; purchased power from utility sources, cogenerators, or independent power producers; efficiency improvements; or upgrading transmission and distribution systems to reduce power and energy losses.

Staff could not determine if busbar costs were included in KCPL's analysis. 4 CSR 240-22.040(2)(A)

KCPL provided information regarding cost in a document provided for Integrated Resource Analysis (4 CSR 240-22.060) and Risk Analysis and Strategy Selection (4 CSR 240-22.070) titled "KCPL 2006 Comprehensive Energy Plan (CEP) Update" (CEP Update). In this document on page 40, there is a list of ** _____

_____ **

Table 4

**

**

KCPL's evaluation of environmental costs is incomplete. 4 CSR 240-22.040(2)(B)

In the CEP update document on page 5, Table 2, ** _____

_____ ** KCPL also provided a document titled "KCP&L Response to
10/29/04 Workshop Issues Appendix C, Environmental Compliance: Environmental
Compliance Planning December 2004." This document appears ** _____

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_____ **

KCPL's ranking of supply-side options is incomplete. 4 CSR 240-22.040(2)(C)

On pages 25 through 41 of the CEP Update there is a discussion of ** _____

_____ **

KCPL provided no documentation of its analysis of existing and planned interconnection of potential resource options. 4 CSR 240-22.040(3)(A-C)

KCPL's documentation of its analysis of life extension and refurbishment of existing plants is incomplete. 4 CSR 240-22.040(4)

KCPL provided a document titled "Schedule of Proposed Planning Studies to be Supplied by KCPL." In this document there is information regarding ** _____

_____ **

KCPL provided a list of ** _____ ** on a sheet supplied to Staff and Public Counsel on September 14, titled "KCPL Potential Resource Additions & Upgrades." KCPL also provided a capacity balance sheet that showed capacity increases for the ** _____ ** generation units.

However, no costs were included in the documentation. It is not clear whether the final analysis included any of the potential resource additions and upgrades. No discussion

was included of ** _____

_____ **

KPCL's documentation of its RFP is incomplete. 4 CSR 240-22.040(5)(A-G)

KCPL provided information regarding a RFP for long-term power purchase. The result of this RFP was used to model a purchase power agreement (PPA) in MIDAS. However, no information was provided for part 4 CSR 240-22.040(5)(F) or 4 CSR 240-22.040(5)(G) concerning transmission issues for purchased power.

KCPL provided no information regarding efficiency improvements in existing transmission and distribution facilities. 4 CSR 240-22.040(7)

KCPL failed to include a discussion of ** _____ ** 4 CSR 240-22.040(8)(A)

In pages 11 through 18 of the CEP Update, KCPL discusses ** _____

_____ **

KCPL did not provide comprehensive documentation of all costs. 4 CSR 240-22.040(8)(B) and (C)

In the Technology Overview KCPL identifies capital costs. Fifteen (15) technologies are identified and costs associated with each of the technologies are estimated. All but one of the listed technologies do not have information for waste generation (4 CSR 240-22.040(1)(K)2.), water impacts (4 CSR 240-22.040(1)(K)3.), or siting impacts (4 CSR 240-22.040(1)(K)4.). Some technologies are missing other information. Table 3 lists the technologies and the information that is missing.

KCPL's analysis of forecasts of emission allowances is incomplete. 4 CSR 240-22.040(8)(D)

In pages 19 through 22 of the CEP Update, KCPL discusses ** _____
_____ emission

_____ ** KCPL also provided a document titled "KCP&L Response to
10/29/04 Workshop Issues Appendix C, Environmental Compliance: Environmental
Compliance Planning December 2004." This document includes a discussion of ** _____

_____ **

**KCPL provided no documentation regarding annual fixed costs for leased or rented
facilities. 4 CSR 240-22.040(8)(E)**

**KCPL asked for an extension for the reporting requirements until June 5, 2008. 4
CSR 240-22.040(9)**

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4 CSR 240-22.050 Demand-Side Analysis

Summary of the Staff's Review

In the six and one-half years between when variances from Chapter 22 were granted by the Commission in 1999 and July 5, 2006, when KCPL filed its resource plan, some aspects of resource planning have remained the same while some have evolved.

Given the increase in experience in demand-side programs and resource planning since the rules were suspended in 1999, KCPL developed its compliance filing and Staff reviewed KCPL's demand-side resource analysis filing considering the "intent" of the demand-side resource analysis rule. Although Staff did not ignore the literal language of the rule, Staff based its view of the *intent* of the rule on discussions with the individuals on the Staff that wrote the rule, the rule itself, and the discussions at the Commission's roundtable on Integrated Resource Planning for Electric and Natural Gas Utilities Rulemaking Workshop held on May 20, 2005. At this roundtable, utility and industry participants joined Staff in discussing potential changes to Chapter 22. Even giving consideration to the literal language of the rule, Staff does not believe that its expectations regarding what KCPL should have filed and what the other electric utilities subject to Chapter 22 should file is overly demanding or in any manner unreasonable.

KCPL has investigated, and evaluated a number of demand response and energy efficiency (also referred to as Demand-Side Management (DSM)) programs since 2004 when a series of workshops on resource planning was conducted in Case No. EW-2004-0596. Subsequently, pursuant to the Stipulation and Agreement approved by the Commission in Case No. EO-2005-0329, a collaborative was established that was made up of the representatives of the parties that signed the Stipulation and Agreement to evaluate and implement energy affordability, energy efficiency, and demand response programs. As specified in the Stipulation and Agreement, twenty-nine million dollars in funding to be spent over five years has been budgeted by KCPL for these programs.

The process of the workshops and the KCPL Regulatory Plan has given KCPL a breadth of experience with DSM programs beyond the programs evaluated and implemented as a result of its 1994 Resource Plan. KCPL's DSM experience is reflected in the wide range of programs which it reviewed and evaluated. The programs cover a broad range of customer classes and target energy efficiency, demand-side management, and energy affordability. These programs were the basis for the demand-side resource analysis as required by 4 CSR 240-22.050 for the 2006 Resource Plan filing. In its filing, KCPL showed the results of its screening of the energy efficiency and affordability programs identified in its Regulatory Plan. The demand response programs included in the filing also reflect the demand response programs in its Regulatory Plan.

Deficiencies in KCPL's Filing

KCPL did not meet the specific requirements of the demand-side rule or provide an explanation of why the Commission should grant it a waiver from the specific requirements. 4 CSR 240-22.050

KCPL's filing does not meet the requirements of 4 CSR 240-22.050, and KCPL did not ask for waivers from any of the specific requirements of the rule. However it did request that if any waivers were needed, that the Commission grant the waivers.

The procedures contained in the rule are detailed and interrelated. If the procedures are followed, the process of identifying, determining costs, screening end-use measures and demand-side programs, applying the cost tests, and designing an evaluation is a self-documenting process. Table 5 was adapted from a table furnished by KCPL in response to a request for work papers related to demand-side analysis. The first column of Table 5 indicates the range of programs that were identified, evaluated, and screened; but as the third column indicates, the processes are not appropriately documented. This does not allow Staff to thoroughly evaluate compliance with the requirements of the rule.

Table 5
 Summary of KCPL Demand-Side Resource Analysis Work Papers*
 KCPL Electric Utility Resource Plan
 Case No. EO-2007-0008

IRP document	Source	Work Paper
Program descriptions, budgets and impacts	Stipulation and Agreement in Case No. EO-2005-0329 (Regulatory Plan - Appendix C)	none
A/C Cycling plan (Res. & Small Com. Load Curtailment)	Tariff filing	none
Mpower plan (Ind. & Large Com. Load Curtailment)	Tariff filing	none
Com. & Ind. Audit & Rebate plan Retrofit and New Construction	Tariff filing	none
Online Energy Analyzer plan (Residential and Commercial)	Tariff filing	none
White Paper: Pre-Implementation Analysis of the Impact and Cost Effectiveness of Affordability and EE Programs (Includes Benefit/Cost runs on all programs)	KCPL Report to Customer Programs Advisory Group (CPAG) (CPAG was established in the S&A in Case No. EO-2005-0329)	MIDAS runs Commodity calculation work paper Benefit/Cost calculations
RFP for peaker capacity value	From RFP Evaluation for MIDAS model	none
Missouri Residential Saturation Study	RLW Analytics (Consultant)	none
MidAmerican Energy Company -- Energy Efficiency Programs in Iowa -- Expenditures and Savings	Iowa Utility Board	none
Energy Efficiency and Demand Response Programs Research	Primary research	none
Request for Qualifications/Information for an Evaluation Partner	KCPL document	none

*This table was developed from a table provided by KCPL

KCPL did not document any market research. 4 CSR 240-22.050(5)

An energy efficiency market analysis survey has been conducted by investor-owned and major municipal electric utilities in Missouri including KCPL. The results of this study may be useful in the implementation of the programs selected and was listed in Appendix C of the Demand-Side Resource Analysis section, but no results were available for this filing. KCPL needs to conduct more KCPL specific market research studies, customer surveys, pilot programs, test marketing programs and other activities to help assure that demand-side programs are applicable to KCPL. These studies must be documented in KCPL's next filing.

KCPL did not conduct end-use screening or calculate avoided costs as required by the rule. 4 CSR 240-22.050(1), 4 CSR 240-22.050(2)(A)1.- 2., (2)(C)2.A.-B.

KCPL performed end-use screening and calculation of avoided costs on the sets of residential affordability programs, residential energy efficiency programs and commercial and industrial energy efficiency programs that were identified for implementation. As Table 5 indicates, these results were presented in conjunction with the KCPL report to Customer Programs Advisory Group (CPAG), White Paper, August 2, 2006 (CPAG White Paper). Although KCPL performed ** _____

_____ ** these were not performed consistent with the requirements of the rules.

KCPL did not evaluate the load building aspects of its demand-side programs. 4 CSR 240-22.050(10)

KCPL did not analyze the load-building potential of its residential Energy Star Homes new construction demand-side program. KCPL's residential new construction demand-side program should be carefully evaluated as to whether it could result in load-building and if, it is load-building, whether or not it negatively impacts KCPL. It has been analyzed only as a program that provides incentives to homebuilders to encourage more energy efficient construction.

4 CSR 240-22.060 Integrated Resource Analysis

Summary of the Staff Findings

This portion of the Electric Utility Resource Planning Rules requires the utility to design alternative resource plans to meet the planning objectives and sets minimum standards for the scope and level of detail required in resource plan analysis. KCPL created three general resource additions strategies but the variation occurred mostly in the type and timing of supply-side resources in the next few years. The strategies were as follows:

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** _____

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Deficiencies in KCPL's Filing

Deficiencies in supply-side and demand-side analysis limits the development of alternative resource plans. 4 CSR 240-22.060(3)

The many deficiencies listed for the Supply-Side Resource Analysis (4 CSR 240-22.040) and Demand-Side Resource Analysis (4 CSR 240-22.050) will have a direct effect on the development of alternative resource plans. For example, the supply-side deficiency, life extension and refurbishment of existing plants, would significantly alter the timing and resource choices in the development of alternative resource plans if different extension assumptions were made. Similarly, demand-side deficiencies could limit the development of alternative resource plans with varying levels of demand-side resources.

The alternative resource plans that were developed were limited. 4 CSR 240-22.060(3)

Although KCPL could not have known its preferred strategy prior to performing the analysis, the fact that resource decisions ** _____
_____ ** in its analysis raises questions about future capacity and energy decisions. Staff maintains that future capacity and energy decisions are an important part of the planning horizon, especially now that that many commitments have been made that make it difficult to change the short term strategy.

KCPL provided no documentation that it did any analysis of load building programs. 4 CSR 240-22.060(5)

KCPL asked for an extension for the reporting requirements until June 5, 2008. 4 CSR 240-22.060(6)

4 CSR 240-22.070 Risk Analysis and Strategy Selection

Summary of the Staff Findings

The intent of this rule is for the utility to look at the risks and uncertainties associated with the portfolios identified in the integration rule, select a preferred plan, an implementation plan for that preferred plan and contingency options for that preferred plan.

KCPL conducted uncertainty and sensitivity analyses on the following: ** _____

_____ **

KCPL complied with some parts of this rule and did not comply with other parts. Most of the uncertain factors listed in the Risk Analysis section of the rule were part of the sensitivity analysis portion of the rule. However, several factors such as interest rates, purchased power, and demand-side programs were not addressed in the sensitivity analysis. In addition, an estimate of the value of perfect information was not given, and the demand-side implementation was deficient as was the contingency plans.

Deficiencies in KCPL's Filing

KCPL provided no documentation on decision makers' consideration of the results of the resource plan or the decision makers' determination that the assessments of these uncertainties was reasonable. 4 CSR 240-22.070(1)

KCPL conducted sensitivity analysis on the ** ____ ** items listed above. However, it should not be a substitute for the judgment of the decision-makers. It is not clear that the decision-makers considered these results and made the determination that these represented reasonable assessments of these uncertainties. In its next filing, KCPL must include a discussion of the rationale used by the utility decision-makers to judge the

appropriate tradeoffs between competing planning guidelines, expected performance and risk.

KCPL did not include any documentation of its analysis of the value of better information. 4 CSR 240-22.070(8)

The Staff maintains that the value of information is an important piece of information that can be used for many purposes including the decision-making process for funding of resource planning. KCPL should assess the value of better information in its next resource filing.

KCPL needs to conduct additional analysis on environmental compliance. 4 CSR 240-22.070(10)

Although the decisions to build Iatan 2 and retain a ** ___ ** MW share of Iatan 2, construct for its own use ** ___ ** MW of wind generation, and put environmental upgrades on ** _____ ** are all important, KCPL will face other significant decisions regarding environment compliance. These decisions are characterized as “significant supply-side issues” in the waiver request that KCPL related to 4 CSR 240-22.060 and 4 CSR 240-22.070; however, the Staff believes that it is more correct to state that KCPL will be deciding what mix of environmental upgrades, traditional supply-side generation, renewable generation, distributed generation, and demand-side alternatives it should use to meet its energy and capacity needs. KCPL should continue to keep the Staff informed regarding its environmental work as a substitute for the reporting of a change in circumstances that was contemplated by the reporting requirement in 4 CSR 240-22.070(10).

KCPL did not develop an adequate set of contingency options. 4 CSR 240-22.070(10)

KCPL did not develop an adequate set of contingency options. The loss of KCPL’s Hawthorn 5 plant several years ago illustrates the need for a strategy and contingency options to plan for the risk of the loss of a major generating unit(s).

KCPL asked for an extension for the reporting requirements until June 5, 2008. 4

CSR 240-22.070(11)