IN RE: KANSAS CITY POWER & LIGHT COMPANY'S 2008 UTILITY RESOURCE FILING PURSUANT TO 4 CSR 240, CHAPTER 22

ATTACHMENT A
WAIVER REQUESTS RELATED TO:
LOAD ANALYSIS AND FORECASTING
4 CSR 240-22.030

(1) 4 CSR 240.22.030 (1.D.1)

Current Requirement: The development of actual and weather-normalized monthly class and system energy usage and actual hourly net system loads shall start from January 1982 or for the period of time used as the basis of the utility's forecast, whichever is longer.

Proposed Alternative: The development of actual and weather-normalized monthly class and system energy usage shall start from January 1990. Actual hourly net system loads shall start from January 1982.

Rationale: Historic monthly and class system energy usage prior to 1990 is not available, and therefore KCPL cannot provide that data. For the purposes of this requirement, we believe that the current usage data, spanning 17 years, is appropriate for forecasting. This data provides more than 200 monthly observations, which is sufficient to obtain statistically significant calibration coefficients in our models.

(2) 4 CSR 240.22.030 (1.D.2)

Current Requirement: Estimated actual and weather-normalized class and system monthly demands at the time of the system peak and weather normalized hourly system loads shall start from January 1990 or for the period of time used as the basis of the utility's forecast of these loads, whichever is longer.

Proposed Alternative: Estimated actual and weather-normalized class and system monthly demands at the time of the system peak and weather normalized hourly system loads shall start from January 2005.

Rationale: Historical monthly class coincident demands (weather normalized) back to 1990 are not available. KCPL, with the involvement of Missouri Staff, designed and implemented an improved load research sample beginning in April of 2004 that utilized a structure that matches our tariff rate classes. As a result, data prior to April 2004 cannot be readily combined with the new sample data. KCPL believes that the current load research sample provides data appropriate for the proper forecasting of loads.

(3) 4 CSR 240.22.030 (3)

Current Requirement: Analysis of Use per Unit. For each major class, the utility shall analyze historical use per unit by end-use.

Proposed Alternative: For each major class, KCPL will analyze historical use per unit for heating, cooling and other end uses. For the residential class, other end uses will be appliance specific.

Rationale: The three end uses and the residential appliance data specified above are the only data available. This data is used in the SAE model to evaluate end use. KCPL conducts an appliance saturation survey for its residential customers, which allows analysis of use per unit for that class. For commercial and industrial classes, KCPL relies on regional end-use data collected by the US Department of Energy (DOE), which does not include an accurate means of disaggregation by end-use. KCPL believes that the DOE provides the best available end-use data for forecasting its loads because it maintains the best available models for incorporating appliance efficiency standards and trends in building design efficiencies, updates its models annually, and performs extensive research on energy utilization. In the future KCPL will consider performing additional market studies to help calibrate the regional data.

(4) 4 CSR 240.22.030 (3.B.1)

Current Requirement: Measures of the stock of energy-using capital goods. For each major class and end-use, the utility shall implement a procedure to develop and maintain survey data on the energy-related characteristics of the building, appliance, and equipment stock including saturation levels, efficiency levels, and sizes where applicable. The utility shall update these surveys before each scheduled filing pursuant to 4 CSR 240-22.080.

Proposed Alternative: With the exception of residential appliance saturations, KCPL requests a waiver from this requirement.

Rationale: KCPL believes that the DOE provides the best available end-use data for forecasting its loads because it maintains the best available models for incorporating appliance efficiency standards and trends in building design efficiencies, updates its models annually, and performs extensive research on energy utilization. DOE data is provided on a regional basis. The West North Central region includes Missouri, Kansas, Iowa, Nebraska, Minnesota, South Dakota, and North Dakota. Surveys conducted by DOE are completed in three parts, the Manufacturing Energy Consumption Survey (MECS) collects data on energy consumption and expenditures, onsite generation of electricity, and byproduct energy use, the Residential Energy Consumption Survey (RECS) which measures the physical characteristics of housing units, the number of appliances, the types of space conditioning equipment used, and demographic characteristics, and the Commercial Buildings Energy Consumption Survey (CBECS) which collects data on energy related building characteristics, and equipment stocks. The sample sizes in each survey are sufficient to provide estimates at the regional level. KCPL believes the use of this data for its Missouri and Kansas service areas is reasonable, useful, and appropriate for load analysis and forecasting. The level of detail provided by DOE is adequate and effective for use in the SAE model, which KCPL utilizes to evaluate the data. Given that alternate sources like EPRI's REEPS,

COMMEND and INFORM are no longer maintained and do not incorporate recent appliance efficiency standards, individual studies are cost prohibitive to produce, and our belief that the DOE survey results are comparable to those we might obtain through our own efforts, the DOE provides our most reasonable source for end use data.

(5) 4 CSR 240.22.030 (3.B.2)

Current Requirement: Estimates of end-use energy and demand. For each end-use, the utility shall estimate end-use monthly energies and demands at time of the monthly system peaks and shall calibrate these energies and demands to equal the weather-normalized monthly energies and demands at the time of monthly peaks for each major class for the most recently available data.

Proposed Alternative: For each major end-use, defined as heating, cooling and other, KCPL will estimate end-use monthly energies and demands at time of the monthly system peaks and shall calibrate these energies and demands to equal the weather-normalized monthly energies and demands at the time of monthly peaks for each major class for the most recently available data.

Rationale: KCPL's forecasting models buildup an end-use forecast for heating, cooling and other end uses, which are then calibrated to monthly sales data using a statistically adjusted end-use (SAE) approach.

In the residential sector, the end-use forecast is constructed from projections of appliance stocks, unit energy consumptions, appliance standards and building characteristics. The other end use is the sum of end-use projections for electric water heaters, clothes dryers, clothes washers, dishwashers, ovens, cooktops, refrigerators, freezers and lighting. KCPL uses its own measures of appliance ownership from its residential appliance saturation survey. These end-use projections capture expected trends in appliance ownership and efficiency.

In the commercial and industrial sectors, the end-use projections for heating, cooling and other end uses are constructed from DOE's estimates of end-use floor space shares, end-use energy use per square foot and efficiency trends for appliances and buildings. The other end use is the sum of energy use for lighting, office equipment, refrigeration equipment, cooking equipment, electric water heating and miscellaneous equipment. KCPL measures electric space heating saturations as the percentage of customers on an electric space heating rate and projects penetrations and conversions based on energy price forecasts.

The SAE model calibrates the three end uses, heating, cooling and other, to KCPL's monthly kwh sales data.

(6) 4 CSR 240.22.030 (4.A)

Current Requirement: Load profiles for each day type shall be developed for each end-use, for each major class and for the net system load.

Proposed Alternative: Load profiles for each day type shall be developed for each major end use, for each major class and for the net system load, where major end use is defined as heating, cooling and other.

Rationale: KCPL's forecasting models buildup an end-use forecast for heating, cooling and other end uses, which are then calibrated to monthly sales data using a statistically adjusted end-use (SAE) approach. Please see item #5 for details concerning the buildup process. Load profiles are then required for these major calibrated end uses to forecast hourly loads and peaks.

(7) 4 CSR 240.22.030 (4.B)

Current Requirement: For each day type, the estimated end-use load profiles shall be calibrated to sum to the estimated major class load profiles and the estimated major class load profiles shall be calibrated to sum to the net system load profiles.

Proposed Alternative: The estimated major class load profiles shall be calibrated to sum to the net system load profiles.

Rationale: KCPL's forecasting models buildup an end-use forecast for heating, cooling and other end uses, which are then calibrated to monthly sales data using a statistically adjusted end-use (SAE) approach. Please see item #5 for details concerning the buildup process. Load profiles are required for these major end uses to forecast hourly loads and peaks.

(8) 4 CSR 240.22.030 (5.B.2.B)

Current Requirement: End-use detail. For each major class and for each end-use, the utility shall forecast both monthly energy use and demands at time of the summer and winter system peaks.

Proposed Alternative: End-use detail. For each major class and for each major end use, the utility shall forecast both monthly energy use and demands at time of the summer and winter system peaks. Major end uses are defined as heating, cooling and other.

Rationale: KCPL's forecasting models buildup an end-use forecast for heating, cooling and other end uses, which are then calibrated to monthly sales data using a statistically adjusted end-use (SAE) approach. Please see item #5 for details concerning the buildup process. These forecasts by major end-use then feed our forecasts of hourly loads and peak demands.

(9) 4 CSR 240.22.030 (8.B.2)

Current Requirement: The plots for the forecast period shall show each end-use component of major class coincident demands per unit and total class coincident demands for the base-case forecast.

Proposed Alternative: The plots for the forecast period shall show each major end-use component of major class coincident demands per unit and total class coincident demands for the base-case forecast. Major end-use is defined as heating, cooling and other.

Rationale: KCPL's forecasting models buildup an end-use forecast for heating, cooling and other end uses, which are then calibrated to monthly sales data using a statistically adjusted end-use (SAE) approach. Please see item #5 for details concerning the buildup process.

(10) 4 CSR 240.22.030 (8.E.1)

Current Requirement: The plots shall show each end-use component of the hourly load profile.

Proposed Alternative: The plots shall show each major end-use component of the hourly load profile. Major end use is defined as heating, cooling and other.

Rationale: KCPL's forecasting models buildup an end-use forecast for heating, cooling and other end uses, which are then calibrated to monthly sales data using a statistically adjusted end-use (SAE) approach. Please see item #5 for details concerning the buildup process.