
**Rules of
Department of Economic
Development
Division 240—Public Service Commission
Chapter 22—Electric Utility Resource
Planning**

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Title 4—DEPARTMENT OF ECONOMIC DEVELOPMENT

Division 240—Public Service Commission

Chapter 22—Electric Utility Resource Planning

4 CSR 240-22.010 Policy Objectives

PURPOSE: This rule states the public policy goal that this chapter is designed to achieve and identifies the objectives that the electric utility resource planning process must serve.

(1) The commission's policy goal in promulgating this chapter is to set minimum standards to govern the scope and objectives of the resource planning process that is required of electric utilities subject to its jurisdiction in order to ensure that the public interest is adequately served. Compliance with these rules shall not be construed to result in commission approval of the utility's resource plans, resource acquisition strategies or investment decisions.

(2) The fundamental objective of the resource planning process at electric utilities shall be to provide the public with energy services that are safe, reliable and efficient, at just and reasonable rates, in a manner that serves the public interest. This objective requires that the utility shall—

(A) Consider and analyze demand-side efficiency and energy management measures on an equivalent basis with supply-side alternatives in the resource planning process;

(B) Use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan; and

(C) Explicitly identify and, where possible, quantitatively analyze any other considerations which are critical to meeting the fundamental objective of the resource planning process, but which may constrain or limit the minimization of the present worth of expected utility costs. The utility shall document the process and rationale used by decision makers to assess the tradeoffs and determine the appropriate balance between minimization of expected utility costs and these other considerations in selecting the preferred resource plan and developing contingency options. These considerations shall include, but are not necessarily limited to, mitigation of—

1. Risks associated with critical uncertain factors that will affect the actual costs associated with alternative resource plans;

2. Risks associated with new or more stringent environmental laws or regulations that may be imposed at some point within the planning horizon; and

3. Rate increases associated with alternative resource plans.

Auth: sections 386.040, 386.610 and 393.140, RSMo (1986) and 386.250, RSMo (Cum. Supp. 1991). Original rule filed June 12, 1992, effective May 6, 1993.*

**Original authority: 386.040, RSMo (1939); 386.250, RSMo (1939), amended 1963, 1967, 1977, 1980, 1987, 1988, 1991; 386.610, RSMo (1939); and 393.140, RSMo (1939), amended 1949, 1967.*

4 CSR 240-22.020 Definitions

PURPOSE: This rule defines terms used in the rules comprising 4 CSR 240-22—Electric Utility Resource Planning.

Editor's Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.

(1) Avoided cost means the cost savings obtained by substituting demand-side resources for existing and new supply resources. 4 CSR 240-22.050(2) requires the utility to develop the following measures of avoided cost:

(A) Avoided utility costs developed pursuant to 4 CSR 240-22.050(2)(D), which include energy cost savings plus demand cost savings associated with generation, transmission and distribution facilities; and

(B) Avoided probable environmental costs developed pursuant to 4 CSR 240-22.050(2)(D) and 4 CSR 240-22.040(2)(B).

(2) Candidate resource options are demand-side programs that pass the screening test required by 4 CSR 240-22.050(7), or supply-side resources that are not rejected on the basis of the screening analysis required by 4 CSR 240-22.040(2).

(3) Capacity means the maximum capability to continuously produce and deliver electric power via supply-side resources or the avoidance of the need for this capability by demand-side resources.

(4) Chance node is a decision-tree fork consisting of two (2) or more branches that represent the range and number of relevant potential outcomes for an uncertain factor.

(5) Coincident demand means the hourly demand of a component of system load at the hour of system peak demand within a specified interval of time.

(6) Contingency option means an alternative choice, decision or course of action designed to enhance the utility's ability to respond quickly and appropriately to events or circumstances that would render the preferred resource plan obsolete.

(7) Decision node is a decision-tree fork consisting of two (2) or more branches that represent the set of decision alternatives being considered by utility planners at that stage of the resource planning process.

(8) Decision tree is a diagram that specifies the order in which key resource decisions must be made, enumerates the set of decision alternatives to be considered at each stage, identifies the critical uncertain factors that affect the outcome of each decision and shows how the potential range of values for uncertain factors interact with each decision option to affect the expected cost of providing an adequate level and quality of energy services.

(9) Demand means the rate of electric power use measured in kilowatts (kW).

(10) Demand-side measure is synonymous with end-use measure.

(11) Demand-side resource (or program) means an organized process for packaging and delivering to a particular market segment a portfolio of end-use measures that is broad enough to include at least some measures that are appropriate for most members of the target market segment.

(12) Driver variable means an external economic or demographic factor that significantly affects some component of utility loads.

(13) Electric utility or utility means any electrical corporation as defined in section 386.020, RSMo which is subject to the jurisdiction of the commission.

(14) End-use energy service or energy service means the specific need that is served by the final use of energy, such as lighting, cooking, space heating, air conditioning, refrigeration, water heating or motive power.



- (15) End-use measure means an energy-efficiency measure or an energy-management measure.
- (16) Energy means the total amount of electric power that is generated or used over a specified interval of time measured in kilowatt-hours (kWh).
- (17) Energy-efficiency measure means any device, technology, rate structure or operating procedure that makes it possible to deliver an adequate level and quality of end-use energy service while using less energy than would otherwise be required.
- (18) Energy-management measure means any device, technology, rate structure or operating procedure that makes it possible to alter the time pattern of electricity usage so as to require less generating capacity or to allow the electric power to be supplied from more fuel-efficient generating units.
- (19) Expected cost of an alternative resource plan is the statistical expectation of the cost of implementing that plan, contingent upon the uncertain factors and associated subjective probabilities represented by chance nodes in the decision tree. 4 CSR 240-22.060 requires the utility to consider probable environmental costs as well as direct utility costs in its assessment of alternative resource plans.
- (20) Expected unserved hours means the statistical expectation of the number of hours per year that a utility will be unable to supply its native load without importing emergency power.
- (21) Fixed cost margin means the portion of electric energy and demand rates that is designed to recover all nonvariable costs.
- (22) Implementation period means the time interval between the filings required of each utility pursuant to 4 CSR 240-22.080.
- (23) Implementation plan means descriptions and schedules for the major tasks necessary to implement the preferred resource plan over the implementation period.
- (24) Inefficient energy-related choice means any decision that causes the life-cycle cost of delivering an adequate level and quality of end-use energy service to be higher than it would be for an available alternative choice.
- (25) Inefficient price means a price that is not equal to the long-run marginal cost of providing a good or service.
- (26) Information means any fact, relationship, insight, estimate or expert judgment that narrows the range of uncertainty surrounding key decision variables or has the potential to substantially influence or alter resource-planning decisions.
- (27) Levelized cost means the dollar amount of a fixed annual payment for which a stream of those payments over a specified period of time is equal to a specified present value based on a specified rate of interest.
- (28) Life-cycle cost means the present worth of costs over the lifetime of any device or means for delivering end-use energy service.
- (29) Load-building program means an organized promotional effort by the utility to persuade energy-related decision-makers to choose electricity instead of other forms of energy for the provision of energy service or to persuade existing customers to increase their use of electricity, either by substituting electricity for other forms of energy or by increasing the level or variety of energy services used. This term is not intended to include the provision of technical or engineering assistance, information about filed rates and tariffs, or other forms of routine customer service.
- (30) Load duration curve is a plot of ranked hourly demand versus the number of hours in which demand was greater than or equal to that value over a specified interval of time.
- (31) Load factor means the average demand over a specified interval of time divided by the maximum demand in the interval.
- (32) Load impact means the change in energy usage and the change in diversified demand during a specified interval of time due to the implementation of a demand-side measure or program.
- (33) Load profile means a plot of hourly demand versus chronological hour of the day from the hour ending 1:00 a.m. to the hour ending 12:00 midnight.
- (34) Load-research data means average hourly demands (kWhs per hour) derived from the metered instantaneous demand for each customer in the load-research sample.
- (35) Load-research estimates, or class hourly loads, or class load estimates means the statistical expectation of the average hourly demands for each major class derived from the load-research data for that class.
- (36) Load-research sample means a subset of utility customers from each major class whose demands are metered to provide statistical estimates of class hourly loads to a specified level of accuracy.
- (37) Long run means an analytical framework within which all factors of production are variable.
- (38) Lost margin or lost revenues means the reduction between rate cases in billed demand (kW) and energy (kWh) due to installed demand-side measures, multiplied by the fixed-cost margin of the appropriate rate component.
- (39) Market imperfection means any factor or situation that contributes to inefficient energy-related choices by decision-makers, including at least—
(A) Inadequate information about costs, performance and benefits of end-use measures;
(B) Inadequate marketing infrastructure or delivery channels for end-use measures;
(C) Inadequate financing options for end-use measures;
(D) Mismatched economic incentives resulting from situations where the person who pays the initial cost of an efficiency investment is different from the person who pays the operating costs associated with the chosen efficiency level;
(E) Ineffective economic incentives when decision-makers give low priority to energy-related choices because they have a short-term ownership perspective or because energy costs are a relatively small share of the total cost structure (for businesses) or of the total budget (for households); or
(F) Inefficient pricing of energy supplies.
- (40) Market segment means any subgroup of utility customers (or other energy-related decision-makers) which has some or all of the following characteristics in common: they have a similar mix of end-use energy service needs, they are subject to a similar array of market imperfections that tend to inhibit efficient energy-related choices, they have similar values and priorities concerning energy-related choices, or the utility has access to them through similar channels or modes of communication.
- (41) Nominal dollars mean future or then-current dollar values that are not adjusted to remove the effects of anticipated inflation.
- (42) Participant means an energy-related decision-maker who implements one (1) or more end-use measures as a direct result of a demand-side program.

(43) Planning horizon means a future time period of at least twenty (20) years' duration over which the costs and benefits of alternative resource plans are evaluated.

(44) Preferred resource plan means the resource plan that is contained in the resource acquisition strategy that has most recently been adopted for implementation by the electric utility.

(45) Probable environmental benefits test is a test of the cost-effectiveness of end-use measures that uses the sum of avoided utility costs and avoided probable environmental costs to quantify the savings obtained by substituting the end-use measure for supply resources.

(46) Probable environmental cost means the expected cost to the utility of complying with new or additional environmental laws, regulations, taxes or other requirements that utility decision-makers judge may be imposed at some point within the planning horizon which would result in compliance costs that could have a significant impact on utility rates.

(47) Resource acquisition strategy means a preferred resource plan, an implementation plan and a set of contingency options for responding to events or circumstances that would render the preferred plan obsolete.

(48) Resource plan means a particular combination of demand-side and supply-side resources to be acquired according to a specified schedule over the planning horizon.

(49) Resource planning means the process by which an electric utility evaluates and chooses the appropriate mix and schedule of supply-side and demand-side resource additions to provide the public with an adequate level, quality and variety of end-use energy services.

(50) Screening test or cost-effectiveness test means the probable environmental benefits test for demand-side measures and the total resource cost test for demand-side programs.

(51) Subjective probability means the judgmental likelihood that the outcome represented by each branch of a chance node will actually occur. The sum of the probabilities associated with the branches of a single chance node must equal one (1). This means that the specified set of potential outcomes must be exhaustive and mutually exclusive.

(52) Sulfur dioxide emission allowance is an authorization to emit, during or after a specified calendar year, one (1) ton of sulfur dioxide, as defined in Title IV of the Clean Air Act Amendments of 1990, 42 USC 7651a(3).

(53) Supply-side resource or supply resource means any device or method by which the electric utility can provide to its customers an adequate level and quality of electric power supply.

(54) Technical potential of an end-use measure is an estimate of the load impact that would occur if that measure were installed at every location in the utility's service territory where the measure is technically feasible but has not yet been installed.

(55) Total resource cost test is a test of the cost-effectiveness of demand-side programs that compares the sum of avoided utility costs plus avoided probable environmental costs to the sum of all incremental costs of end-use measures that are implemented due to the program (including both utility and participant contributions), plus utility costs to administer, deliver and evaluate each demand-side program to quantify the net savings obtained by substituting the demand-side program for supply resources.

(56) Uncertain factor means any event, circumstance, situation, relationship, causal linkage, price, cost, value, response or other relevant quantity which can materially affect the outcome of resource planning decisions, about which utility planners and decision-makers have incomplete or inadequate information at the time a decision must be made.

(57) Utility costs are the costs of operating the utility system and developing and implementing a resource plan that are incurred and paid by the utility. On an annual basis, utility cost is synonymous with utility revenue requirement.

(58) The utility cost test is a test of the cost-effectiveness of demand-side programs that compares the avoided utility costs to the sum of all utility incentive payments, plus utility costs to administer, deliver and evaluate each demand-side program to quantify the net savings obtained by substituting the demand-side program for supply resources.

(59) The utility benefits test is a test of the cost-effectiveness of end-use measures that uses avoided utility costs to quantify the savings obtained by substituting the end-use measure for supply resources.

(60) Utility discount rate means the post-tax rate of return on net investment used to calculate the utility's annual revenue requirements.

(61) Weather measure means a function of daily temperature data that reflects the observed relationship between electric load and temperature.

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**Original authority: 386.040, RSMo (1939); 386.250, RSMo (1939), amended 1963, 1967, 1977, 1980, 1987, 1988, 1991; 386.610, RSMo (1939); and 393.140, RSMo (1939), amended 1949, 1967.*

4 CSR 240-22.030 Load Analysis and Forecasting

PURPOSE: 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.

(1) Historical Data Base. The utility shall develop and maintain data on the actual historical patterns of energy usage within its service territory. The following information shall be maintained and updated on an ongoing basis:

(A) Customer Class Detail. The historical data base shall be maintained for each of the following major classes: residential, commercial, industrial, interruptible and other classes that may be required for forecasting (for example, large power, wholesale, outdoor lighting and public authorities).

1. Taking into account the requirement for an unbiased forecast as well as the cost of developing data at the subclass level, the utility shall determine what level of subclass detail is required for forecasting and what methods to use in gathering subclass information for each major class.

2. The utility shall consider the following categories of subclasses: for residential, dwelling type; for commercial, building or business type; and for industrial, product type. If the utility uses subclasses which do not fit into these categories, it must explain the reasons for its choice of subclasses;

(B) Load Data Detail. The historical load data base shall contain the following data:

1. For each jurisdiction under which the utility has rates established and for which it prepares customer and energy forecasts, each major class, and to the extent data is required to support the detail specified in paragraph



(1)(A)1., for each subclass, actual monthly energy usage and number of customers and weather-normalized monthly energy usage;

2. For each major class, estimated actual and weather-normalized demands at the time of monthly system peaks; and

3. For the system, actual and weather-normalized hourly net system load;

(C) Load Component Detail. The historical data base for major class monthly energy usage and demands at time of monthly peaks shall be disaggregated into a number of units component and a use kilowatt-hour (kWh) per unit component, for both actual and weather-normalized loads.

1. Typical units for the major classes are—residential, number of customers; commercial, square feet of floor space or commercial employment level; and industrial, production output or employment level. If the utility uses a different unit measure, it must explain the reason for choosing different units.

2. The utility shall develop and implement a procedure to routinely measure and regularly update estimates of the effect of departures from normal weather on class and system electric loads.

A. The estimates of the effect of weather on class and system loads shall incorporate the nonlinear response of loads to daily weather and seasonal variations in loads.

B. For at least the base year of the forecast, the utility shall estimate the cooling, heating and nonweather-sensitive components of the weather-normalized major class loads.

C. The utility shall document the methods used to develop weather measures and the methods used to estimate the effect of weather on electric loads. If statistical models are used, the documentation shall include at least: the functional form of the models; the estimation techniques employed; the data used to estimate the models, including the development of model input data from basic data; and the relevant statistical results of the models, including parameter estimates and tests of statistical significance; and

(D) Length of Data Base. Once the utility has developed the historical data base, it shall retain that data base for the ten (10) most recent years or for the period of time used as the basis of the utility's forecast, whichever is longer.

1. 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 of these loads, whichever is longer.

2. 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.

(2) Analysis of Number of Units. For each major class or subclass, the utility shall analyze the historical relationship between the number of units and the economic or demographic factors (driver variables) that affect the number of units for that major class or subclass. These relationships shall be specified as statistical or mathematical models that relate the number of units to the driver variables.

(A) Choice of Driver Variables. The utility shall identify appropriate driver variables as predictors of the number of units for each major class or subclass. The critical assumptions that influence the driver variables shall also be identified.

(B) Documentation of statistical models shall include the elements specified in subparagraph (1)(C)2.C. Documentation of mathematical models shall include a specification of the functional form of the equations.

(C) Where the utility has modeled the relationship between the number of units and the driver variables for a major class, but not for subclasses within that major class, it shall consider how a change in the subclass shares of major class units could affect the major class forecast.

(3) Analysis of Use Per Unit. For each major class, the utility shall analyze historical use per unit by end use.

(A) End-Use Detail. For each major class, use per unit shall be disaggregated by end use where information permits.

1. Where applicable for each major class, end-use information shall be developed for at least lighting, process equipment, space cooling, space heating, water heating and refrigeration.

2. For each major class and each end use, including those listed in paragraph (3)(A)1., if information is not available, the utility shall provide a schedule for acquiring this end-use information or demonstrate that either the expected costs of acquisition were found to outweigh the expected benefits over the planning horizon or that gathering the end-use information has proven to be infeasible.

3. If the utility has not yet acquired end-use information on space cooling or space heating for a major class, the utility shall determine the effect that weather has on the total load of that major class by disaggregating the load into its cooling, heating and nonweather-sensitive components. If the cooling or heating components are a significant portion of the total load of the major class,

then the cooling or heating components of that load shall be designated as end uses for that major class.

4. The difference between the total load of a major class and all end uses for which the utility has acquired end-use information shall be designated as an end use for that major class.

(B) The data base and historical analysis required for each end use shall include at least the following:

1. 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; and

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

(4) Analysis of Load Profiles. The utility shall develop a consistent set of daily load profiles for the most recent year for which data is available. For each month, load profiles shall be developed for a peak weekday, a representative of at least one (1) weekday and a representative of at least one (1) weekend day.

(A) Load profiles for each day type shall be developed for each end use, for each major class and for the net system load.

(B) 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.

(5) Base-Case Load Forecast. The utility's base-case load forecast shall be based on projections of the major economic and demographic driver variables that utility decision-makers believe to be most likely. All components of the base-case forecast shall be based on the assumption of normal weather conditions. The load impacts of implemented demand-side programs shall be incorporated in the base-case load forecast but the load impacts of proposed demand-side programs shall not be included in the base-case forecast.

(A) Customer Class and Total Load Detail. The utility shall produce forecasts of monthly energy usage and demands at the time of the

summer and winter system peaks by major class for each year of the planning horizon. Where the utility anticipates that jurisdictional levels of forecasts will be required to meet the requirements of a specific state, then the utility shall determine a procedure by which the major class forecasts can be separated by jurisdictional component.

(B) Load Component Detail. For each major class, the utility shall produce separate forecasts of the number of units and use per unit components based on the analysis described in sections (2) and (3) of this rule.

1. Number of units forecast. The utility's forecast of number of units for each major class shall be based on the analysis of the relationship between number of units and driver variables described in section (2). Where judgment has been applied to modify the results of a statistical or mathematical model, the utility shall specify the factors which caused the modification and shall explain how those factors were quantified.

A. The forecasts of the driver variables shall be specified and clearly documented. These forecasts shall be compared to historical trends and significant differences between the forecasts and long-term and recent trends shall be analyzed and explained.

B. The forecasts of the number of units for each major class shall be compared to historical trends. Significant differences between the forecasts and long-term and recent trends shall be analyzed and explained.

2. Use per unit forecast. The utility's forecast of monthly energy usage per unit and seasonal peak demands per unit for each major class shall be based on the analysis described in section (3).

A. The forecasts of the driver variables for the use per unit shall be specified. The utility shall document how the forecast of use per unit has taken into account the effects of real prices of electricity, real prices of competitive energy sources, real incomes and any other relevant economic and demographic factors.

B. 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.

C. The stock of energy-using capital goods. For each end use for which the utility has developed measures of the stock of energy-using capital goods and where the utility has determined that forecasting the use of electricity associated with these energy-using capital goods is cost-effective and feasible, it shall forecast those measures and document the relationship between the forecasts of the measures to the forecasts of end-use energy and demands at time of the summer and winter system peaks. The values of the driver

variables used to generate forecasts of the measures of the stock of energy-using capital goods shall be specified and clearly documented.

D. The major class forecasted use per unit shall be compared to historical trends in weather-normalized use per unit. Significant differences between the forecasts and long-term and recent trends shall be analyzed and explained.

(C) Net System Load Forecast. The utility shall produce a forecast of net system load profiles for each year of the planning horizon. The net system load forecast shall be consistent with the utility's forecasts of monthly energy and demands at time of summer and winter system peaks for the major rate classes.

(6) Sensitivity Analysis. The utility shall analyze the sensitivity of the components of the base-case forecast for each major class to variations in the key driver variables, including the real price of electricity, the real price of competing fuels and economic and demographic factors identified in section (2) and subparagraph (5)(B)2.A.

(7) High-Case and Low-Case Load Forecasts. Based on the sensitivity analysis described in section (6), the utility shall produce at least two (2) additional load forecasts (a high-growth case and a low-growth case) that bracket the base-case load forecast. Subjective probabilities shall be assigned to each of the load forecast cases. These forecasts and associated subjective probabilities shall be used as inputs to the strategic risk analysis required by 4 CSR 240-22.070.

(8) Reporting Requirements. To demonstrate compliance with the provisions of this rule, and pursuant to the requirements of 4 CSR 240-22.080, the utility shall prepare a report that contains at least the following information:

(A) For each major class specified in subsection (1)(A), the utility shall provide plots of number of units, energy usage per unit and total class energy usage.

1. Plots shall be produced for the summer period (June through September), the remaining nonsummer months and the calendar year.

2. The plots shall cover the historical data base period and the forecast period of at least twenty (20) years.

A. The historical period shall include both actual and weather-normalized energy usage per unit and total class energy usage.

B. The plots for the forecast period shall show each end-use component of major class energy usage per unit and total class energy usage for the base-case forecast.

(B) For each major class specified in subsection (1)(A), the utility shall provide plots of class demand per unit and class total demand at time of summer and winter system peak. The plots shall cover the historical data base period and the forecast period of at least twenty (20) years.

1. The plots for the historical period shall include both actual and weather-normalized class demands per unit and total demands at the time of summer and winter system peak demands.

2. 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.

(C) For the forecast of class energy and peak demands, the utility shall provide a summary of the sensitivity analysis required by section (6) of this rule that shows how changes in the driver variables affect the forecast.

(D) For the net system load, the utility shall provide plots of energy usage and peak demand.

1. The energy plots shall include the summer, nonsummer and total energy usage for each calendar year.

2. The peak demand plots shall include the summer and winter peak demands.

3. The plots shall cover the historical data base period and the forecast period of at least twenty (20) years. The historical period shall include both actual and weather-normalized values. The forecast period shall include the base-case, low-case and high-case forecasts.

4. The utility shall describe how the subjective probabilities assigned to each forecast were determined.

(E) For each major class, the utility shall provide estimated load profile plots for the summer and winter system peak days.

1. The plots shall show each end-use component of the hourly load profile.

2. The plots shall be provided for the base year of the load forecast and for the fifth, tenth and twentieth years of the forecast.

(F) For the net system load profiles, the utility shall provide plots for the summer peak day and the winter peak day.

1. The plots shall show each of the major class components of the net system load profile in a cumulative manner.

2. The plots shall be provided for the base year of the forecast and for the fifth, tenth and twentieth years of the forecast.

(G) The data presented in all plots also shall be provided in tabular form.

(H) The utility shall provide a description of the methods used to develop all forecasts required by this rule, including an annotated summary that shows how these methods comply with the specific provisions of this rule. If end-use methods have not been used in