

FILED³

MAR 03 2011

MEMORANDUM

TO: Steven C. Reed, Secretary

Missouri Public
Service Commission

DATE: March 2, 2011

RE: Authorization to File Order of Rulemaking with the Office of Secretary of State

FILE NO: EX-2010-0254

The undersigned Commissioners hereby authorizes the Secretary of the Missouri Public Service Commission to file the following Order of Rulemaking with the Office of the Secretary of State, to wit:

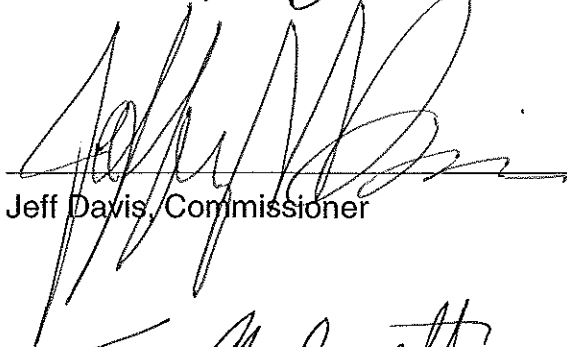
4 CSR 240-22.050 – Amendment



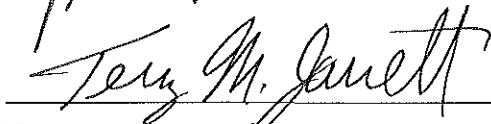
Kevin D. Gunn, Chairman



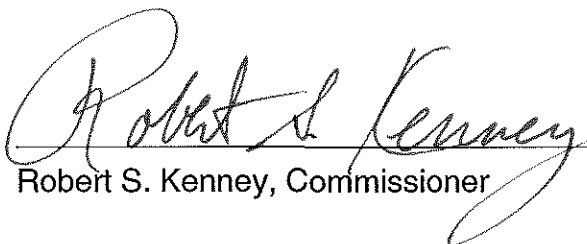
Robert M. Clayton III, Commissioner Chairman



Jeff Davis, Commissioner



Terry M. Jarrett, Commissioner



Robert S. Kenney, Commissioner

Robin Carnahan

Secretary of State
Administrative Rules Division

RULE TRANSMITTAL

Administrative Rules Stamp

Rule Number 4 CSR 240-22.050

Use a "SEPARATE" rule transmittal sheet for EACH individual rulemaking.

Name of person to call with questions about this rule:

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TYPE OF RULEMAKING ACTION TO BE TAKEN

☐ Emergency rulemaking, include effective date

☐ Proposed Rulemaking

☐ Withdrawal ☐ Rule Action Notice ☐ In Addition ☐ Rule Under Consideration

☒ Order of Rulemaking

Effective Date for the Order

☒ Statutory 30 days OR Specific date

Does the Order of Rulemaking contain changes to the rule text? ☐ NO

☒ YES—LIST THE SECTIONS WITH CHANGES, including any deleted rule text:

Section (5)(C)3 has been added. Sections (1)(A)4 and (5)(B)4 have been removed. Sections (1)(B), (2), (3)(G)5.B, (3)(E), (3)(F), (4)(D), (4)(D)5.A, (4)(F), (5)(A)2, (6)(C)1, (6)(C)2 and the purpose statement have been amended.

Small Business Regulatory
Fairness Board (DED) Stamp

JCAR Stamp

JOINT COMMITTEE ON

MAR 03 2011

ADMINISTRATIVE RULES



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Secretary of State
Administrative Rules Division
600 West Main Street
Jefferson City, Missouri 65101

Re: 4 CSR 240-22.050 Demand-Side Resource Analysis

Dear Secretary Carnahan,


CERTIFICATION OF ADMINISTRATIVE RULE

I do hereby certify that the attached is an accurate and complete copy of the order of rulemaking lawfully submitted by the Missouri Public Service Commission.

Statutory Authority: sections 386.040, 386.250, 386.610 and 393.140, RSMo 2000

If there are any questions regarding the content of this order of rulemaking, please contact:

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Morris L. Woodruff
Chief Regulatory Law Judge

**Title 4 – DEPARTMENT OF ECONOMIC DEVELOPMENT
Division 240 – Public Service Commission
Chapter 22 – Electric Utility Resource Planning**

ORDER OF RULEMAKING

By the authority vested in the Public Service Commission under sections 386.040, 386.250, 386.610, and 393.140, RSMo 2000, the Commission amends a rule as follows:

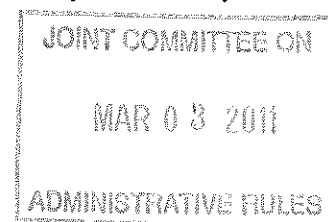
4 CSR 240-22.050 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on December 1, 2010 (35 MoReg 1753). The sections with changes are reprinted here. The proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The public comment period ended January 3, 2011, and a public hearing on the proposed rule was held January 6, 2011. Timely written comments were received from the staff of the Missouri Public Service Commission (Staff), the Office of the Public Counsel, The Empire District Electric Company (Empire), Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company (KCPL), Union Electric Company d/b/a Ameren Missouri, the Missouri Department of Natural Resources (DNR), Dogwood Energy, LLC, Renew Missouri and Great Rivers Environmental Law Center (Renew Missouri), and from Public Service Commissioner Jeff Davis. In addition, Staff, Public Counsel, Empire, KCPL, Renew Missouri, DNR, Dogwood, KCPL, and Ameren Missouri offered comments at the hearing. The comments proposed various modifications to the amendment.

Comments relating to the entire package of changes to Chapter 22: The proposed amendment to this rule is part of a larger package of nine rules that comprise the proposed Chapter 22 of the Commission's rules that establish the requirements for resource planning by investor-owned electric utilities in Missouri. Some of the submitted comments relate to the overall package in general. The Commission will address those comments first, and then will address the comments that relate specifically to this rule of Chapter 22.

COMMENT 1 - The Rules Should Be Less Prescriptive: Ameren Missouri, Empire, and KCPL, the electric utilities that will need to comply with Chapter 22, suggest that the entire Chapter 22 should be less prescriptive. By that, they



mean the Chapter 22 rules should focus more on the end result, the preferred resource plan, and allow the electric utilities more leeway to determine how to arrive at that result. As an alternative to the rules the Commission has proposed, they offer a set of rules prepared by the Missouri Energy Development Association (MEDA), an electric, natural gas and water utility trade organization.

RESPONSE: The MEDA rules, a copy of which was attached to the comments filed by both Ameren Missouri and KCPL, has the virtue of being much shorter than the Commission's rule, but that brevity comes with a cost. As Staff explained in its testimony, it and other interested stakeholders cannot properly evaluate a utility's resource plan unless they know what went into development of the plan. A preferred resource plan may look entirely reasonable when presented by the utility, but unless the reviewer knows the assumptions and processes that were used to determine the plan; the review is of little value.

An analogy can be made to a weather forecast offered by the weather bureau. The forecaster may offer an opinion that it will rain tomorrow, but unless the reviewer knows the basis of that forecast, the reviewer has little more to go on than trust. Staff, other interested stakeholders, and the Commission need to be able to base their evaluation of the plans submitted by the utilities on more than just trust.

Furthermore, while the electric utilities would prefer a less-prescriptive rule, they will be able to comply with the rules the Commission has proposed. At the public hearing, Ameren Missouri commented: "We have concerns about how much the process can get in the way of getting to a good result. But in the end we will do it." Also in the public hearing, in response to Commissioner Jarrett's questions about the experience in other states, Empire commented: "... we're able to do a total company IRP. And since the Missouri rule is the more onerous ... what we do in Missouri, as far as the IRP, in those other jurisdictions. And we are all on the same three-year filing cycle in all three states, which makes it nice for us."

This rule is much less prescriptive than the previous rule. The utility is allowed to determine the approach it will take to develop demand-side programs for screening. It does not require that demand-side programs be developed for a wide spectrum of customers and end-uses. It also removes the detailed description of how the utility should calculate avoided costs. It does prescribe what costs should be taken into account and requires that the utility carefully document its processes and results.

The rules the Commission has proposed strike a proper balance between the utilities' interest in freedom of action and the Commission's need to know the basis for their proposed plans. The Commission will not adopt the rules proposed by MEDA.

COMMENT 2 - Linkage with the MEEIA Rules: Renew Missouri and the Department of Natural Resources are concerned about the interrelationship of these rules with the rules the Commission has proposed to implement the Missouri Energy Efficiency Investment Act of 2009, section 393.1075, RSMo

(MEEIA). In particular, they cite a provision in the MEEIA rules that directs electric utilities to assemble comprehensive demand-side portfolios that are subject to approval and cost recovery under the MEEIA. Before that is done, the MEEIA rules require that the utility's demand-side programs or program plans are either included in the electric utility's preferred resource plan or have been analyzed through the integration analysis process required by Chapter 22 to determine the impact of the demand-side programs or program plans on the net present value of revenue requirements of the electric utility. Renew Missouri and DNR worry that the integration analysis under Chapter 22 would introduce elements into the demand-side portfolios that would be inconsistent with the requirements of the MEEIA rules. Their solution to this problem is to suggest that the definitions and requirements of these Chapter 22 rules be made as consistent as possible with the definitions and requirements of the MEEIA rules.

RESPONSE: The Commission is mindful of the concerns expressed by Renew Missouri and DNR, but it is unwilling to make the Chapter 22 rules subservient to the MEEIA rules in the manner they propose. The goal of MEEIA is to achieve all cost-effective demand-side savings. The fundamental objective of these rules is to provide the public with energy services that are safe, reliable, and efficient at just and reasonable rates. To accomplish that fundamental objective, these rules require the utility to consider and analyze demand-side resources and supply-side resources on an equivalent basis.

This rule requires the utility to use the total resource cost test to screen demand-side resources. All resources, that have passed the screening, (both supply-side and demand-side), are further evaluated through integrated resource analysis. The integrated resource analysis is followed by a risk analysis and a strategic selection by the utility's decision-makers. Demand-side programs that survive this rigorous screening should be the programs for which the utility requests the Commission's approval for non-traditional rate-making treatment.

COMMENT 3 - Preapproval of Large Projects: The electric utilities, through the MEDA rules, advocate for the option of requesting preapproval of large investments as part of a utility's Chapter 22 compliance filing. Ameren Missouri asserts that preapproval is a way for the utility to seek determination of ratemaking treatment on a major project before the project begins. It also points out that the Missouri Energy Efficiency Investment Act (MEEIA) provides for preapproval of demand side resources. Ameren Missouri claims that it is a logical extension to provide a preapproval option for large supply-side investments, if preapproval is requested by the utility.

Staff and Public Counsel oppose an option for preapproval of large projects. They argue that utilities already have authority to request additional regulatory certainty by requesting a regulatory plan or some other form of preapproval. The utilities have utilized both of these approaches in the past, and it is unnecessary and inappropriate to include a preapproval process in the Chapter 22 rules.

Dogwood suggests the Commission open a new separate rulemaking process to consider proposals to develop a procedure by which electric utilities may seek preapproval from the Commission for certain large projects.

RESPONSE: The Commission agrees with its Staff and Public Counsel that there are other more appropriate alternatives for preapproval and will not include a provision for preapproval of large investments in its Chapter 22 rules. The Commission is open to further discussion on the preapproval question, but will not undertake a rulemaking on the subject at this time.

COMMENT 4 - Illegal Infringement on the Right to Manage the Utility: Ameren Missouri contends the proposed rules go beyond the Commission's statutory authority by intruding on the day-to-day management prerogatives of the utility.

RESPONSE: The Commission certainly is not interested in managing the utility companies, and these rules do not attempt to do so. Rather, the rules are designed to ensure that the electric utilities implement an effective and thorough integrated resource planning process to ensure that their ratepayers continue to receive safe and reliable service at just and reasonable rates.

COMMENT 5 - Acknowledgment: The Department of Natural Resources urges the Commission to modify the Chapter 22 rules to authorize the Commission to "acknowledge" the reasonableness of the electric utility's resource acquisition strategy. DNR believes this acknowledgment would increase the Commission's authority over integrated resource planning by making the process more meaningful and consistent with the utility's business plan. The electric utilities, through the MEDA rules, make a similar suggestion. Ameren Missouri contends, "acknowledgment is a way to give value to all the work of the parties involved by acknowledging that the plan is reasonable at the time it was developed."

Staff is opposed to acknowledgment of the reasonableness of the electric utility's resource acquisition strategy in these rules. Staff points out that currently the Commission's decision whether to allow the cost of a resource to be recovered in rates occurs after the resource is "fully operational and used for service," and the utility has requested that it be added to the utility's rate base. A resource can be added to the rate base, and its cost recovered, if the investment was prudent, reasonable, and of benefit to Missouri retail ratepayers (a finding that has historically been made in Missouri after the resource has been constructed and after it is fully operational and used for service). Further, Staff is greatly concerned that stakeholders lack the resources to review and conduct prudence/reasonableness/benefit-to-Missouri-retail-ratepayers level analysis of all the resources necessary early in the planning stages if an acknowledgment determination is being made by the Commission.

RESPONSE: The Commission does not wish to move down the path toward preapproval of projects as part of the resource planning process. However, it is

important to emphasize the importance of that planning process by giving the Commission authority to acknowledge that the officially adopted resource acquisition strategy, or any element of that strategy, is reasonable at a particular date. The Commission will adopt modified language that defines acknowledgment in a manner that will make it clear that acknowledgment is not preapproval and will not bind a future commission in any future case. In addition, the Commission will adopt other elements of DNR's proposal for implementation of an acknowledgment option, except for the inclusion of a definition for "substantive concern." The specific changes that will be made to the proposed rules are described in detail in comments relating to the specific rule provisions.

Comments relating to this particular rule of Chapter 22:

COMMENT 6 - Changes to Section .050(1): Renew Missouri asks the Commission to modify this section to increase the likelihood that a comprehensive demand-side portfolio will emerge from the IRP process.

RESPONSE: The Commission is mindful of the concerns expressed by Renew Missouri, but is unwilling to make the Chapter 22 rules subservient to the MEEIA rules in the manner they propose. Section 3 of MEEIA states that it is the policy of the state to value demand-side investments equal to traditional investments in supply and delivery infrastructure. Therefore, supply-side resources and demand-side resources should be evaluated on an equivalent basis in Chapter 22 and the resulting resource plan should be in the best interest of the customer and the shareholder. The Commission will not modify this section.

COMMENT 7 - Changes to Subsection .050(1)(B): The Department of Natural Resources asks the Commission to "establish a yardstick" at the integration phase that encourages utility diligence in efforts to identify measures for screening of all major end uses and to formulate aggressive implementation strategies.

RESPONSE: The Commission does not agree that the "yardstick" suggested by DNR should be established in 4 CSR 240-22.060(3)(A)3 (see COMMENT 12 for Order of Rulemaking for 4 CSR 240-22.060) and, therefore, will not modify this subsection of this rule.

COMMENT 8 - Changes to Subsection .050(1)(A)4: Renew Missouri contends this subsection is inconsistent with the MEEIA definitions of "demand-side program" that reduces "net consumption of electricity" and "energy efficiency," which means "measures that reduce the amount of electricity required to achieve a given end use". Renew Missouri suggests the subsection be deleted for that reason.

RESPONSE AND EXPLANATION OF CHANGE: The Commission agrees with Renew Missouri and will delete this subsection.

COMMENT 9 - Maximum Achievable Potential Substituted for Technical Potential: Public Counsel asks the Commission to substitute the term maximum achievable potential for the term technical potential at several points in this rule. Public Counsel suggests the assessment of maximum achievable potential is more meaningful for planning purposes than an assessment of technical potential. In its comments, Staff expressed support for adding a definition for maximum achievable potential to the rule, but does not support deleting the term technical potential entirely from the rule.

RESPONSE AND EXPLANATION OF CHANGE: The Commission will not delete the term technical potential entirely from the rule. The Commission will add a definition of maximum achievable potential that matches the definition of that term from its MEEIA rules. That new definition has been added as 4 CSR 240-22.020(40). The Commission will also add maximum achievable potential to the purpose statement and section .050(2) of this rule and will substitute "maximum achievable potential" for "technical potential" in subsections .050(3)(G)5.B and .050(4)(D)5.A of this rule.

COMMENT 10 - Addition of "Customer" Classes: Public Counsel asks the Commission to add the word "customer" before "class or classes" at several points in the rule to improve clarity.

RESPONSE: The Commission will not modify its rule as suggested by Public Counsel because each of the places Public Counsel would add the word "customer" is between the words "major class" and major class is defined in the rule as a cost-of-service class of the utility. Thus the modification is unnecessary.

COMMENT 11 - Changes to Subsection .050(3)(E): Public Counsel asks the Commission to add the term "such as rebates, financing, and direct installations" as examples of the types of multiple approaches referenced in the subsection.

RESPONSE AND EXPLANATION OF CHANGE: The Commission agrees with Public Counsel that providing these examples adds clarity to the subsection and will modify the subsection accordingly.

COMMENT 12 - Changes to Subsection .050(3)(F): Public Counsel asks the Commission to add the term "describe and document the feasibility, cost – reduction potential and potential benefits of" to provide guidance on the type of analysis needed in this area.

RESPONSE AND EXPLANATION OF CHANGE: The Commission agrees with Public Counsel and will modify this subsection accordingly.

COMMENT 13 - Changes to Subsection .050(3)(G)5.B: Public Counsel asks the Commission to add the concept of financing cost to this subsection to ensure that the costs associated with using financing to encourage customer participation in demand-side programs are included in the utility's calculation of the cost of incentives.

RESPONSE AND EXPLANATION OF CHANGE: The Commission agrees with Public Counsel and will modify this subsection accordingly.

COMMENT 14 - Changes to Subsection .050(4)(F): Public Counsel asks the Commission to add language to this subsection to add guidance on the manner in which demand-side rates are considered by the utility's RTO.

RESPONSE AND EXPLANATION OF CHANGE: The Commission agrees with Public Counsel's suggestion except for the words "and any other considerations." Those words are unnecessary because section .050(4) provides that the utility "shall describe and document its demand-side rate planning and design process, and shall include at least the following activities and elements." Thus the rule sets out the minimum standard; other considerations may be taken into account.

COMMENT 15 - Changes to Subsection .050(5)(A)2: Public Counsel would add the word "other" to this subsection to reflect the fact that fuel costs and emission allowance costs are within the broad category of costs referred to as "variable operating and maintenance costs."

RESPONSE AND EXPLANATION OF CHANGE: The Commission agrees with Public Counsel and will make the suggested change.

COMMENT 16 - Changes to Subsection .050(5)(B)4: The Department of Natural Resources would add language to this subsection to clarify that costs identified in this subsection are to be counted only to the extent they are intended to recover incremental costs other than lost revenues or utility incentive payments to customers.

Public Counsel would address the same concern by moving this subsection to .050(5)(C) as a new subsection 3 because the costs of incentive payments to ratepayers by the utility are not a net increase in the cost to society so they should be included in the utility cost test described in .050(5)(C).

RESPONSE AND EXPLANATION OF CHANGE: The Commission agrees with DNR and Public Counsel. Public Counsel's suggestion to delete subsection .050(5)(B)4 and move it to a new subsection .050(5)(C)3 will best deal with the concern and the Commission will do so.

COMMENT 17 - Changes to Section .050(6): Renew Missouri asks the Commission to modify this section to increase the likelihood that a comprehensive demand-side portfolio will emerge from the IRP process.

RESPONSE: The Commission is mindful of the concerns expressed by Renew Missouri, but is unwilling to make the Chapter 22 rules subservient to the MEEIA rules in the manner they propose. Section 3 of MEEIA states that it is the policy of the state to value demand-side investments equal to traditional investments in supply and delivery infrastructure. Therefore, supply-side resources and demand-side resources should be evaluated on an equivalent basis in Chapter 22 and the resulting resource plan should be in the best interest of the customer and the shareholder. The Commission will not modify this section.

COMMENT 18 - Changes to Subsection .050(6)(C)1 and 2: Public Counsel would add the term “achievable potential to each demand-side candidate resource option or portfolio and the likelihood of occurrence for the different customer participation levels” to both subsections to make it clear that both the range of possible outcomes plus the likelihood of outcomes at different points in the range is necessary to estimate “the impact of uncertainty.”

RESPONSE AND EXPLANATION OF CHANGE: The Commission does not believe the clarifying edits provided by Public Counsel on these subsections are necessary and will not modify the subsections to add the suggested language. However, the Commission will modify subsection .050(6)(C)1 to delete the word “technical” and substitute the words “maximum achievable” to increase the usefulness of the information derived from the subsection during the electric utility resource planning process.

COMMENT 19 - Changes to Subsection .050(6)(C)2: Staff advises the Commission to change the term “demand-side” to “end-use” measures to be consistent with usage in other parts of the rule. Public Counsel supports that change.

RESPONSE AND EXPLANATION OF CHANGE: The Commission will make the change proposed by Staff.

COMMENT 20 – Additional Edits Proposed by Public Counsel: As part of its comments, Public Counsel submitted a red-line version of the proposed rule that incorporated several proposed changes to the rule. Public Counsel specifically commented on most of those changes, but also included a few edits that were not otherwise explained in its comments.

RESPONSE AND EXPLANATION OF CHANGE: The Commission has reviewed these additional edits and found them to be appropriate. The Commission has incorporated those edits in sections .050(1)(B), .050(2), .050(4)(D), and .050(4)(D)5.A.

4 CSR 240-22.050 Demand-Side Resource Analysis.

PURPOSE: This rule specifies the principles by which potential demand-side resource options shall be developed and analyzed for cost-effectiveness, with the goal of achieving all cost-effective demand-side savings. It also requires the selection of demand-side candidate resource options that are passed on to integrated resource analysis in 4 CSR 240-22.060 and an assessment of their maximum achievable potentials, technical potentials and realistic achievable potentials.

(1) The utility shall identify a set of potential demand-side resources from which demand-side candidate resource options will be identified for the purposes of developing the alternative resource plans required by 4 CSR 240-22.060(3). A potential demand-side resource consists of a demand-side program designed to deliver one (1) or more energy efficiency and energy management measures or a demand-side rate. The utility shall select the set of potential demand-side resources and describe and document its selection—

(A) To provide broad coverage of—

1. Appropriate market segments within each major class;
2. All significant decision-makers, including at least those who choose building design features and thermal integrity levels, equipment and appliance efficiency levels, and utilization levels of the energy-using capital stock; and
3. All major end uses, including at least the end uses which are to be considered in the utility's load analysis as listed in 4 CSR 240-22.030(4)(A)1.

(B) To fulfill the goal of achieving all cost-effective demand-side savings, the utility shall design highly effective potential demand-side programs consistent with section (A) that broadly cover the full spectrum of cost-effective end-use measures for all customer market segments;

(2) The utility shall conduct, describe and document market research studies, customer surveys, pilot demand-side programs, pilot demand-side rates, test marketing programs, and other activities as necessary to estimate the maximum achievable potential, technical potential and realistic achievable potential of potential demand-side resource options for the utility and to develop the information necessary to design and implement cost-effective demand-side programs and demand-side rates. These research activities shall be designed to provide a solid foundation of information applicable to the utility about how and by whom energy-related decisions are made and about the most appropriate and cost-effective methods of influencing these decisions in favor of greater long-run energy efficiency and energy management impacts. The utility may compile existing data or adopt data developed by other entities, including government agencies and other utilities, as long as the utility verifies the applicability of the adopted data to its service territory. The utility shall provide copies of completed market research studies, pilot programs, pilot rates, test marketing programs, and other studies as required by this rule and descriptions of those studies that are planned or in progress and the scheduled completion dates.

(3) The utility shall develop potential demand-side programs that are designed to deliver an appropriate selection of end-use measures to each market segment. The utility shall describe and document its potential demand-side program planning and design process which shall include at least the following activities and elements:

(E) Design a marketing plan and delivery process to present the menu of end-use measures to the members of each market segment and to persuade decision-makers to implement as many of these measures as may be appropriate to their situation. When appropriate, consider multiple approaches such as rebates, financing, and direct installations for the same menu of end-use measures;

(F) Evaluate, describe, and document the feasibility, cost reduction potential, and potential benefits of statewide marketing and outreach programs, joint programs with natural gas utilities, upstream market transformation programs, and other activities. In the event that statewide marketing and outreach programs are preferred, the utilities shall develop joint programs in consultation with the stakeholder group;

(G) Estimate the characteristics needed for the twenty (20)-year planning horizon to assess the cost effectiveness of each potential demand-side program, including:

1. An assessment of the demand and energy reduction impacts of each stand-alone end-use measure contained in each potential demand-side program;
2. An assessment of how the interactions between end-use measures, when bundled with other end-use measures in the potential demand-side program, would affect the stand-alone end-use measure impact estimates;

3. An estimate of the incremental and cumulative number of program participants and end-use measure installations due to the potential demand-side program;

4. For each year of the planning horizon, an estimate of the incremental and cumulative demand reduction and energy savings due to the potential demand-side program; and

5. For each year of the planning horizon, an estimate of the costs, including:

A. The incremental cost of each stand-alone end-use measure;

B. The cost of incentives paid by the utility to customers or utility financing to encourage participation in the potential demand-side program. The utility shall consider multiple levels of incentives paid by the utility for each end-use measure within a potential demand-side program, with corresponding adjustments to the maximum achievable potential and the realistic achievable potential of that potential demand-side program;

C. The cost of incentives to customers to participate in the potential demand-side program paid by the entities other than the utility;

D. The cost to the customer and to the utility of technology to implement a potential demand-side program;

E. The utility's cost to administer the potential demand-side program; and

F. Other costs identified by the utility;

(4) The utility shall develop potential demand-side rates designed for each market segment to reduce the net consumption of electricity or modify the timing of its use. The utility shall describe and document its demand-side rate planning and design process and shall include at least the following activities and elements:

(D) Estimate the input data and other characteristics needed for the twenty (20)-year planning horizon to assess the cost effectiveness of each potential demand-side rate, including:

1. An assessment of the demand and energy reduction impacts of each potential demand-side rate;

2. An assessment of how the interactions between multiple potential demand-side rates, if offered simultaneously, would affect the impact estimates;

3. An assessment of how the interactions between potential demand-side rates and potential demand-side programs would affect the impact estimates of the potential demand-side programs and potential demand-side rates;

4. For each year of the planning horizon, an estimate of the incremental and cumulative demand reduction and energy savings due to the potential demand-side rate; and

5. For each year of the planning horizon, an estimate of the costs of each potential demand-side rate, including:

A. The cost of incentives to customers to participate in the potential demand-side rate paid by the utility. The utility shall consider multiple levels of incentives to achieve customer participation in each potential demand-side rate, with corresponding adjustments to the maximum achievable potential and the realistic achievable potentials of that potential demand-side rate;

B. The cost to the customer and to the utility of technology to implement the potential demand-side rate;

C. The utility's cost to administer the potential demand-side rate; and

D. Other costs identified by the utility;

(F) Evaluate how each demand-side rate would be considered by the utility's Regional Transmission Organization (RTO) in resource adequacy determinations, eligibility to participate as a demand response resource in RTO markets for energy, capacity, and ancillary services; and

(5) The utility shall describe and document its evaluation of the cost-effectiveness of each potential demand-side program developed pursuant to section (3) and each potential demand-side rate developed pursuant to section (4). All costs and benefits shall be expressed in nominal dollars.

(A) In each year of the planning horizon, the benefits of each potential demand-side program and each potential demand-side rate shall be calculated as the cumulative demand reduction multiplied by the avoided demand cost plus the cumulative energy savings multiplied by the avoided energy cost. These calculations shall be performed both with and without the avoided probable environmental costs. The utility shall describe and document the methods, data, and assumptions it used to develop the avoided costs.

1. The utility avoided demand cost shall include the capacity cost of generation, transmission, and distribution facilities, adjusted to reflect reliability reserve margins and capacity losses on the transmission and distribution systems, or the corresponding market-based equivalents of those costs. The utility shall describe and document how it developed its avoided demand cost, and the capacity cost chosen shall be consistent throughout the triennial compliance filing.

2. The utility avoided energy cost shall include the fuel costs, emission allowance costs, and other variable operation and maintenance costs of generation facilities, adjusted to reflect energy losses on the transmission and distribution systems, or the corresponding market-based equivalents of those costs. The utility shall describe and document how it developed its avoided energy cost, and the energy costs shall be consistent throughout the triennial compliance filing.

3. The avoided probable environmental costs include the effects of the probable environmental costs calculated pursuant to 4 CSR 240-22.040(2)(B) on the utility avoided demand cost and the utility avoided energy cost. The utility shall describe and document how it developed its avoided probable environmental cost.

(B) The total resource cost test shall be used to evaluate the cost-effectiveness of the potential demand-side programs and potential demand-side rates. In each year of the planning horizon—

1. The costs of each potential demand-side program shall be calculated as 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 potential demand-side program;

2. The costs of each potential demand-side rate shall be calculated as the sum of all incremental costs that are due to the rate (including both utility and participant contributions) plus utility costs to administer, deliver, and evaluate each potential demand-side rate; and

3. For purposes of this test, the costs of potential demand-side programs and potential demand-side rates shall not include lost revenues or utility incentive payments to customers.

(C) The utility cost test shall also be performed for purposes of comparison. In each year of the planning horizon—

1. The costs of each potential demand-side program and potential demand-side rate shall be calculated as the sum of all utility incentive payments plus utility costs to administer, deliver, and evaluate each potential demand-side program or potential demand-side rate;

2. For purposes of this test, the costs of potential demand-side programs and potential demand-side rates shall not include lost revenues; and

3. The costs shall include, but separately identify, the costs of any rate of return or incentive included in the utility's recovery of demand-side program costs.

(6) Potential demand-side programs and potential demand-side rates that pass the total resource cost test including probable environmental costs shall be considered as demand-side candidate resource options and must be included in at least one (1) alternative resource plan developed pursuant to 4 CSR 240-22.060(3).

(C) The utility shall describe and document its assessment of the potential uncertainty associated with the load impact estimates of the demand-side candidate resource options or portfolios. The utility shall estimate—

1. The impact of the uncertainty concerning the customer participation levels by estimating and comparing the maximum achievable potential and realistic achievable potential of each demand-side candidate resource option or portfolio; and

2. The impact of uncertainty concerning the cost effectiveness by identifying uncertain factors affecting which end-use resources are cost effective. The utility shall identify how the menu of cost effective end-use measures changes with these uncertain factors and shall estimate how these changes affect the load impact estimates associated with the demand-side candidate resource options.