

## Chapter 29 Integrated Resource Planning, Demand Response and Energy Efficiency

### Rule 29

#### 100 Purpose of Rule

The Commission has developed these rules to implement reporting for integrated resource planning (“IRP”) and for continued implementation of demand response and energy efficiency (collectively “demand-side management”) efforts by utilities subject to the Commission’s jurisdiction. Utilities regulated by the Commission will use the guidelines described in this Rule to establish good utility practices and to satisfy the reporting requirements set out herein. The general approach of the guidelines is intended to allow utilities the necessary flexibility to formulate plans that reflect their specific circumstances and best meet the needs of their customers, consistent with the public policy goals of this Commission and the State of Mississippi.

Demand-side management, which includes energy efficiency, is essential to good utility practices. A sometimes narrow view of energy efficiency has limited its definition to a role of encouraging only energy conservation. The Commission takes a broader approach to energy efficiency: utilities should approach energy efficiency within the context of utility planning, which requires a more expansive goal of enhancing the production, delivery, and use of energy. This approach recognizes that a well-designed energy system, with the proper mix of or access to production resources, is just as important to reducing customer costs and bills as are programs aimed at educating customers about how to efficiently manage their energy usage. IRP and demand-side management are both, therefore, essential to effective energy efficiency; however, utilities must continue to balance reliability, cost, and risk mitigation.

#### 1. Integrated Resource Planning Process Defined

IRP is a utility planning process that requires consideration of all reasonable resources for meeting the demand for a utility's product, including those that focus on traditional supply sources, those that focus on emerging supply sources like distributed energy resources, and those that focus on the management of demand, the efficient use of energy, and conservation. IRP as a process should evaluate various portfolios of demand-side and supply-side resources that support a set of identified objectives over the planning horizon. The resource planning process should define and assess various costs, benefits, and potential risks as they appear and are known in the market.

#### 2. Relationship of the Commission and Utilities to IRP

The periodic filing by a utility of an IRP report provides transparency for the Commission and other interested stakeholders. IRP under these guidelines does not change the fundamental regulatory relationship between the utilities and the Commission, and the requirement that utilities file these plans is in no way

intended to relieve such utilities from meeting their statutory obligations to provide reasonably adequate service at just and reasonable rates. These obligations require that utilities maintain local control of their resource planning process, decision-making, and its results, because utilities are the entities that will be held accountable for their planning decisions by the Commission. The resource planning guidelines embodied in this Rule do not mandate a specific outcome nor do they dictate specific utility investment decisions. The requirements of this Rule, and compliance with it, do not supplant or equate with a prudence determination or otherwise replace the processes for petition and approval of requisite certificates of convenience and necessity for new resources.

Resource planning should reflect each utility's unique circumstances and the judgment of its management, who will continue to bear full responsibility for the consequences of their decisions. Resource planning efforts are relevant to future resource investment decisions and approval proceedings, as well as revenue requirements and rate design. Consistency of a utility's resource planning with the guidelines set forth in this Rule will be an additional factor for the Commission to consider in evaluating the prudence of utility investments, construction of infrastructure, and rate applications, as will changed circumstances and other evidence. As such, the Commission finds that each of the filings referenced in this Rule are related to integrated resource planning and are purely procedural in nature.

### **3. Required Reports**

The required reporting under this Rule shall be comprised of three separate components: (1) the Utility Resource Plan; (2) the Supply-side Report; and (3) the Energy Delivery Plan (with attached Appendix A, incorporating distributed energy resources and demand-side management plans and other requisite information). These reporting requirements can be satisfied separately or with combined reporting.

## **200 Utility Resource Plan**

The Utility Resource Plan must contain certain elements. Subsections 1 – 5 below are the guidelines that the Commission will use to review the completeness of the Utility Resource Plan. The Utility Resource Plan shall be filed with the Commission for informational purposes. The Commission shall review the Utility Resource Plan and note any deficiencies within ninety (90) days after its submittal by the utility. The Public Utilities Staff shall assist the Commission with its review.

### **1. Objectives**

The utility shall clearly state and support its objectives. The objectives of the Utility Resource Plan include, but are not limited to, reliable, adequate, and reasonably-priced service; economic efficiency; financial integrity of the utility; comparable consideration of available and commercially-proven demand-side and supply-side resources; reasonable mitigation of potential risks; consideration of

future environmental impacts and associated costs; and consistency with governmental regulations and policies. In meeting the objectives, the utility should put itself in a position to respond to reasonably anticipated economic conditions, technological advancements and changes, and customer demand for energy services.

## **2. Development of a Range of Demand Forecasts**

A reasonable set of assumptions for econometric and/or end use variables should be considered in the development of a range of outcomes (futures) that complement the long-term forecasts of energy demand and energy consumption. A minimum of 10 years should be used as a planning horizon with a maximum of up to 20 years.

## **3. Identifying and Characterizing Supply-Side and Demand-Side Resources**

For purposes of the entire planning horizon, the utility should assess its supply-side and demand-side resources based on their cost effectiveness and considering the utility's planning objectives. For incremental capacity additions, reasonably useful, commercially-proven, and economic supply-side and demand-side resources that may be available to a utility should be considered, including energy efficiency, demand response, and distributed energy resources ("DER"). Utility efforts to encourage demand-side management and interruptible load should be identified, including utility-provided energy services. Identified resource additions should be analyzed to determine costs, effectiveness, and other attributes such as potential future emission control or allowance costs to the extent they are quantifiable. Resources that do not otherwise meet minimum criteria including cost-effectiveness, risk mitigation, reliability, environmental, and/or other governmental rules or policy should be eliminated from further consideration in the applicable planning cycle. To the extent circumstances change, resources may be reevaluated.

## **4. Development of Multiple Portfolios**

The planning process should identify multiple potential portfolios through scenario planning and sensitivity analyses, each of which meets reliability criteria and the objectives established in the Utility Resource Plan process. Utilities will identify and consider varying inputs and potential risks in developing these different portfolios, such as different levels of load growth, different fuel cost forecasts, or other parameters that are influenced by conditions beyond the utility's control. The portfolios should be compared based on the utility's ability to meet its identified planning objectives across varying potential outcomes over the planning horizon, including but not limited to comparison of the net present values.

## **5. Evaluation of Resource Portfolios**

The utility shall evaluate multiple resource portfolios that address the identified planning criteria, such as balancing risk mitigation against adverse outcomes to its

customers and its own financial integrity, while providing flexibility to change as future conditions warrant. The evaluation should fully describe how the various portfolios affect long-term utility resource needs and costs. The results of such evaluation shall be summarized in an action plan, if applicable, that could identify one or more preferred portfolios that would be selected solely for purposes of long-range guidance and to represent potentially viable options in the future. The action plan is not necessarily a specific plan for near-term action, unless specifically identified within the Utility Resource Plan. A utility's action plan does not in any way relieve the utility of obtaining a certificate of public convenience and necessity pursuant to statutory and procedural rule requirements.

**300 Supply-Side Report**

At approximately the mid-point of the utility's planning cycle, utilities shall file a brief, high-level written report describing any material changes to the Utility Resource Plan, including material changes in economic assumptions (*e.g.*, future natural gas price forecasts or alternative technology costs). Should a Supply-Side Report identify a previously undisclosed need for capacity in excess of 75 MW, then the Report shall include a description of and timeline associated with the utility's plan to secure such resource. A self-build option identified in the Supply-Side Report must be compared to market opportunities, which can be satisfied through a competitive solicitation for engineering, procurement, and construction services. The process for Commission review and approval as well as the acquisition of any resource(s) described in the Supply-Side Report is separate from the processes described in this Rule.

**400 Energy Delivery Planning**

An efficient delivery system is integral to overall energy efficiency. The energy grid is moving from what has historically involved primarily unidirectional energy flows into a more fully integrated energy network, where energy flows bi-directionally between retail customers and utilities. Delivery efficiency and maintaining adequate reliability potentially become more challenging and increasingly important as the system becomes more complex. Consequently, regulated utilities shall report to the Commission annually on their efforts to improve energy delivery, through modernization of existing infrastructure, improvements to lower energy delivery costs (*e.g.*, by expanding access to supply alternatives or relieving congestion in the delivery system), and/or through expansion of energy delivery to additional customers. This annual requirement can be satisfied with existing reporting done in conjunction with a formula rate plan (*e.g.*, submittal of a Transmission and Distribution, System Integrity, or Supplemental Growth plan).

**1. Demand Response and Energy Efficiency (“Demand-Side Management”)**

**a. Design**

Utilities regulated by the Commission shall implement reasonable demand response and energy efficiency options for customers that are designed to achieve cost-effective energy and/or demand savings, considering factors such as: quantifiable and achievable savings, customer reliability benefits, cost effectiveness, rate impacts, and customer interest and participation potential. Well-designed demand-side management offerings provide opportunities for customers of all types to adopt energy efficiency and demand saving measures to increase control and provide greater opportunities to reduce their energy bills. For purposes of this rule, demand-side management includes energy conservation, energy efficiency, demand response, and strategic load growth.

Energy conservation and efficiency include educating customers about practical tips and ideas to reduce energy usage (e.g., suggested winter and summer thermostat settings) and reducing the rate at which energy is used by equipment and/or processes while maintaining or improving the customer's existing level of comfort and end-use functionality. Such reductions in energy usage may be achieved, for example, by substituting more advanced technology or improving the thermal properties of a building.

Demand response offerings lower peak demand. Options include direct load control efforts (e.g., via air conditioner cycling) and interruptible rates (providing rate discounts in exchange for the right to reduce a customer's energy demand during a specified number of hours each year coinciding with high energy demand and/or emergency conditions). New or advanced technologies (e.g., energy storage) are another option.

Strategic load growth benefits customers through increased use of utility services resulting in decreased customer costs due to a larger customer base in which to spread the recovery of a utility's fixed costs (e.g., encouraging cost-effective energy technologies that use the service or additional service of the public utility). The purpose of strategic load growth programs is to increase the efficiency of infrastructure and resources and may also improve system reliability.

**b. Evaluation of Demand-Side Management Offerings**

Cost-effectiveness tests measure and value the benefits and costs of demand-side management investments relative to long-term supply options. Evaluation of cost-effectiveness is only one aspect of long-term integrated resource planning; enhancing reliability and managing potential risks must also be considered in the planning process.

Utilities must demonstrate that they have evaluated the proposed demand-side management investments using available at least two industry-accepted tests and provide results of the analysis within the annual Energy Delivery Plan filing. The results of the analyses should also provide details on the reliability and risk impacts of the utility's planned demand-side management investments.

Issues related to the inputs and assumptions used as well as the precise utilization of cost-effectiveness tests and to the definitive balancing of perspectives shall be developed by the individual utility. The near-term and longer-term impacts on customers and on utility financial integrity must be factored into the final decision to proceed or not to proceed with any demand-side management investment.

**c. Cost Recovery for Demand-Side Management**

The primary goal of demand-side management is to defer or avoid energy usage and achieve the accompanying savings without requiring customers to involuntarily sacrifice comfort or reliability, or accept undue risks. Additional goals include providing new and innovative options to customers to help meet their energy needs, mitigating environmental impacts, and fostering increased modernization of the energy grid. The Commission recognizes and accepts that this goal of avoiding energy usage, if not properly addressed, can be detrimental to utilities and their owners under traditional cost-of-service ratemaking, especially where utilities are adequately meeting their obligation of producing low-cost, reliable energy services. The Commission recognizes, further, that accomplishing the goals of demand-side management requires actions on the part of both the utility and its customers, which is different than actions associated with a utility adding a new supply resource. Therefore, utilities shall be allowed an opportunity to recover the reasonable and prudent costs incurred by them in making demand-side management investments, including an opportunity to earn a reasonable return thereon, and with respect to volumetric rates shall have a reasonable opportunity to recover the lost contribution to fixed costs associated with the estimated reduction in energy usage related to utility demand-side management investments.

Each utility may propose an approach to earn a return on demand-side management investments to place such investments on more equal footing with other supply-side resource and infrastructure investments on which utilities earn a return. Demand-side management investments shall include, but not be limited to,

equipment, incentives and rebates, marketing and delivery, and direct install and any administration costs. Incentives may include information, technical assistance, leasing programs, product promotions and direct financial inducements. Financial inducements may include, but are not limited to, rebates, discounted products and services, and alternative financing arrangements.

Utilities may also propose a mechanism to adjust budgets and recovery to respond to customer demand, to take advantage of market opportunities, to deal with oversubscriptions and to avoid stop-start funding. Cost recovery should be addressed in each utility's formula rate plan, and demand-side management expenditures will be allowed in the FRP test year on a prospective basis (e.g., as a known and measurable change). The estimated reduction in energy usage resulting from implementation of the proposed demand-side management investments also may be reflected prospectively in the FRP test year as a change to future test year utility revenues.

Utilities may propose to add demand-side management investment as a metric to any performance-based rate adjustment. Sales shall not be used as a measure of performance due to the potential for beneficial electrification, economic growth, and increased customer demand. The utility shall not be required to implement any demand-side management absent adequate and sustainable means for that utility to recover its demand-side management costs, including a return on investment for demand-side management that is commensurate with the return the utility has the opportunity to earn on supply-side resources and other infrastructure investments.

Third-party evaluation, measurement and verification ("EM&V") shall not be required where the utility offers to provide its analyses used in evaluating demand-side management investments to the Staff and any public witnesses in conjunction with the Evaluation of Demand-Side Management Offerings. Where a utility chooses not to make its analyses available, the utility shall contract with an independent third-party vendor to conduct EM&V, utilizing accepted industry standards, and shall file the report of the third-party vendor with the Commission.

## **2. Distributed Energy Resources**

In the context of these guidelines, DER means utility-owned (or controlled) equipment (i.e., physical assets) used to generate, adjust, store, or sometimes deliver energy performed by a variety of grid-connected

devices at the distribution system-level. Anticipated investments in DERs should be included as an appendix to the Energy Delivery Plan developed by each utility, and shall serve as proper notice to the Commission, to the extent any is required by Miss. Code Ann. Section 77-3-14 or Chapter 7 of these Rules. Recovery of demand-side management investments should be addressed in each utility's formula rate plan, as a known and measurable change. Incorporation of DER investments into a formula rate plan shall satisfy any need for a certificate, to the extent any may be required by Miss. Code Ann. Section 77-3-14 or Chapter 7 of these Rules.

**3. Low-Income Customers**

In its Energy Delivery Plan, the utility shall address how it proposes to reach low-income customers in relation to planned demand-side management and DER investments. The utility shall also address whether it proposes to provide demand-side management offerings directly or indirectly through financial support of programs for low-income households. To foster increased demand-side management and DER investments that will benefit low-income customers, the Commission shall exempt from the proscriptions set out in Chapter 22 of these Rules and allow recovery as cost of service of up to \$500,000 per year of utility charitable contributions (but not to exceed a total of \$1 per year multiplied by the utility's total retail customer count) to organizations that directly aid low-income customers to foster increased access to demand-side management and DER options.

**4. Enabling Technology**

The Commission recognizes that existing and emerging technologies and information, and the data such technologies provide, may enable more efficient, cost-effective, and reliable service. Increased broadband access and the security, storage, and use of data are two examples. The Commission recognizes the benefits of utilities accumulating, storing, and utilizing customer data to improve service, enhance reliability, and provide new and innovative offerings to customers, and therefore recognizes that customer data is affected with the public interest. Recognizing that customer data has inherent value, public utilities are hereby entrusted as the custodians of customer data and should seek to capture that value for the benefit of customers as approved by the Commission. Utilities also must ensure that customer data is reasonably secure. Within the annual Energy Delivery Plan filing, the utility shall set out its perspective on the availability and benefits of existing and emerging technology and how the utility is utilizing customer data as it relates to enhancing utility service.

**5. Annual Reporting Requirements**



Anticipated investments in demand-side management and DERs shall be included as Appendix A to the Energy Delivery Plan developed by each utility in accordance with this Rule. This report also shall include:

- a. The amounts actually invested in demand-side management and DER offerings for the prior year;
- b. A measure of the savings for demand-side management; and
- c. A detailed description of any changes proposed to take place during the next year, along with rationale supporting such changes.

## **500 Scheduling and Compliance Requirements**

### **1. Scheduling**

Each utility should determine the time period necessary for its resource planning cycle, from one to three years, and schedule its submission with the Commission. However, a Utility Resource Plan shall be submitted at least once in each three-year period.

### **2. Supply-Side Report**

At approximately the mid-point of the utility's resource planning cycle, utilities shall file its written report as required in Rule 29.300.

### **3. Energy Delivery Plan**

A utility shall file an Energy Delivery Plan annually, as set out in Rule 29.400.

### **4. Compliance**

Within a reasonable period of time from the date of the Order approving these guidelines, each utility shall submit to the Commission a copy of its currently-effective utility resource plan that has heretofore served as the basis for its short, intermediate, and long-term resource planning efforts, unless a utility has filed a utility resource plan within the past three years. At the same time, each utility also shall advise the Commission in writing of its proposed timeline in which it will comply with these guidelines. The Commission reserves the right to issue subsequent orders setting forth utility-specific procedural schedules for filings and other informational reports in order to ensure compliance with these guidelines.

### **5. Stakeholder process**

Within thirty (30) days of a utility filing its Utility Resource Plan, any interested party may file comments addressing the Utility Resource Plan, and the Staff shall have sixty (60) days to file any comments on the Plan. Utilities may provide a response to any such comments no later than ninety (90) days after the filing of its Plan. The Commission may require

the utility to re-evaluate and resubmit its Utility Resource Plan for the current planning cycle to address any concerns raised in the comments of or expressed by the Staff or the Commission.

Within sixty (60) days of a utility filing its Appendix A to the Energy Delivery Plan, any interested party may file comments related to Appendix A. Any comments filed by an interested party shall be considered by the utility and the Commission for the next planning cycle under Appendix A.

**6. Confidentiality**

The Commission recognizes that resource planning involves the use and analysis of confidential commercial and financial information and trade secrets. The protection of confidential information benefits utility customers by ensuring that the rates they pay are not unnecessarily increased due to dissemination of market-sensitive data. Therefore, the public interest requires that confidential commercial and financial information and trade secrets of public utilities be protected to the full extent of the law.