



GARY R. HERBERT  
*Governor*

GREG BELL  
*Lieutenant Governor*

State of Utah  
DEPARTMENT OF COMMERCE  
Office of Consumer Services

MICHELE BECK  
*Director*

To: The Public Service Commission of Utah

From: The Office of Consumer Services  
Michele Beck, Director  
Dan Gimble, Special Projects Manager

Copies To: Rocky Mountain Power  
Dave Taylor, Manager, Utah Regulatory Affairs

The Division of Public Utilities  
Philip Powlick, Director  
Artie Powell, Energy Section Manager

Date: December 3, 2009

Subject: Office of Consumer Services' Comments on RMP's Proposed Modeling Approach and Decision Process to Short List Bids for the All Source Request for Proposals; Docket No. 07-035-94.

1 Background

On November 16, 2009, Rocky Mountain Power (RMP or Company) filed its proposed modeling approach for comparing alternative portfolios and criteria for developing a final short list of resources. On November 23, 2009, the Commission issued an Order requesting comments from interested parties by December 3, 2009 in two areas - modeling approach and the criteria relied on for short listing candidate resources. The Office has reviewed the Company's proposed modeling approach and decision criteria and provides comments below.

2 Modeling Approach

The Company proposes to use a two-step (Steps 2 and 3) modeling approach to evaluate the initial short-listed bids (Step 1) based on and consistent with the various models used, and set of preferred resources and input assumptions, in its filed 2008 IRP and 2009 Business Plan. The proposed models are the System Optimizer model for the deterministic analysis and the PaR model for the stochastic risk analysis.

OCS Comments – The Office generally supports the two-step modeling approach using the System Optimizer and PaR Models as proposed by the Company. We

have a number of specific comments regarding the deterministic and risk analyses discussed under 2.1 and 2.2 below.

## 2.1 Step 2 – Deterministic Analysis

Step 2 involves a deterministic analysis using RMP's System Optimizer capacity expansion model to determine "the frequency with which bids and benchmarks are selected under alternative futures." In the deterministic analysis, the preferred portfolio resources are removed and the model fills the resulting deficit with combinations of bid, benchmark and front office transactions to meet the assumed PRM of 12%. The deterministic runs include a base case run and 11 price scenarios reflecting different combinations of CO2 tax levels and natural gas prices.

OCS Comments - The Office has a number of comments in this area:

First, the Company relies on the preferred portfolio of resources and input assumptions (updated to current price forecasts) associated with its 2008 IRP and 2009 Business plan for evaluating bids. A Commission Order on IRP 2008 is still pending and many parties have identified portfolios with more wind resources as preferable to the Company's 5b CCCT Wet preferred portfolio. For example, over the first 10 years of the planning horizon, the Case 8b portfolio has about 2,300 MWs of eastside wind resources compared to only 1,248 MWs of eastside wind resources in the 5b CCCT Wet preferred portfolio. The Office is concerned that using an inferior preferred portfolio will have real consequences by potentially impacting which RFP bid is ultimately selected.

Second, the Office has expressed concerns with the heavy reliance on FOTs, and the associated exposure to market price fluctuations, in the last two IRPs (2007 & 2008). From the Company's description, it is difficult to ascertain the potential impact that use of FOTs will have on the resource selection process because FOTs potentially could make up a significant portion of tested portfolios.

Third, the Company continues to rely on a 12% planning reserve margin (PRM) for this RFP. In its 2007 IRP Order at pg. 16, the Commission indicated that a 15% PRM appears reasonable for IRP purposes. The Office continues to have concerns relating to the Company's use of a 12% PRM for planning (IRP) and resource acquisition (RFP) purposes. Our concerns are discussed in our comments on PacifiCorp's 2008 IRP and direct the Commission to the section entitled "Energy Not Served and Reserve Margins," Attachment 2, pages 2-4.

## 2.2 Step 3(a) -- Stochastic Risk Analysis

Consistent with stochastic simulations performed in the IRP process, the portfolios from Step 2 are subjected to the PaR model to capture production cost estimates based on Monte Carlo random sampling of loads, natural gas prices, wholesale

electricity prices, hydro availability and unit availability for new thermal resources. A real levelized PVRR is determined by adding investment costs associated with portfolios from the System Optimizer analysis with net variable costs from the PaR simulation. The Company proposes that “risk-adjusted PVRR” be the primary stochastic measure for evaluating each resource portfolio. Portfolios are ranked based on the average of risk-adjusted PVRR across \$8, \$45 and \$100 CO2 cost levels.

OCS Comments – In the filed 2008 IRP, the Company uses a percentage weighting scheme spread across seven cost and risk factors to rank portfolios. In IRP sensitivity analysis, relatively small changes in the weights at a \$45/ton carbon cost reversed the ranking of the original 5 and 8 resource portfolios. Moreover, in the IRP the Company applied a 45% weighting to “risk-adjusted PVRR.” In the RFP, the Company simply states the risk-adjusted PVRR will be the main stochastic metric for resource portfolio evaluation.

The Office requested Commission guidance on this issue in its IRP comments (see “Portfolio Preference Scoring,” Attachment 2, pgs. 1-2) because the weighting scheme used has important implications for the ranking of resource portfolios. In the context of the RFP, the Company proposes to use risk-adjusted PVRR as the main stochastic metric. At a minimum the Commission should ensure that the IRP and RFP are aligned on the weighting scheme used by the Company for ranking portfolios and may want to provide further guidance as requested by the Office in its IRP comments. The Commission may also want to request input from the IE regarding this issue.

### 2.3 Step 3(b) -- Deterministic Scenario

The Company proposes to run the four top-performing resource portfolios under further scenario analysis (combinations of gas/electricity prices and CO2 tax levels) using System Optimizer. This additional analysis appears to be a deterministic “check” as to how System Optimizer elects to dispatch a fixed set of resources within a given portfolio.

OCS Comment – The Office has no comments relating to Step 3(b).

## 3 Decision Criteria -- Selecting and Ranking bids

RMP proposes a two-step process be used for selecting and ranking bids. First, RMP proposes to select resources from the top-performing portfolio (per Step 3a); second RMP proposes to rank resources selected from the top-performing portfolio based on frequency of occurrence in the four top performing portfolios. The Company refers to this metric as “resource robustness.”

OCS Comments – The Office has two comments in this area:

First, RMP has modified its decision criteria in a way that is responsive to input provided by interested parties at a December 11, 2008 meeting and subsequent “Comments” filed by the Merrimack, the Independent Evaluator (IE), on December 29, 2008. The Company’s proposed decision process involves two related steps: (1) resources from the top-performing portfolio will be selected for inclusion in the final short list; and (2) individual resources from this portfolio will then be ranked on the basis of resource robustness. This resource selection and ranking process is intended to result in the acquisition of the best available resources over alternative futures.

Second, parties at the December 11, 2009 raised concerns regarding a back-up list of bids to replace any final short-listed bid that is subsequently eliminated because it doesn’t meet certain conditions (project milestones, contract requirements, etc.) or the bidder decides to withdraw the resource. In its December 29, 2008 Comments, the IE stated various utilities maintain a back-up list of bids to ensure a competitive process. The Company does not explicitly address this issue in its presentation.

The Office believes the Company should maintain a back-up list of bids and work with the IE to develop and propose criteria for replacing bids eliminated from the final short list.

#### **4 Summary of Comments**

4.1 General Comment: The Office believes the Company’s proposed RFP modeling should be aligned with the current IRP, updated for information such as gas price and carbon tax forecasts. However, the Office notes that any weaknesses in those plans will be carried through in this RFP analysis, and may now have significant and measurable impacts upon which resource is ultimately selected. The Commission has not yet ruled regarding acknowledgment of the 2008 IRP. Consequently, there is no particular plan or Commission guidance with which this RFP analysis can be aligned. The Office suggests that this comment process could be another venue by which the Commission provides guidance on issues involving both the 2008 IRP and this RFP.

#### 4.2 Specific Comments on Modeling Approach and Decision Criteria:

- The two-step modeling approach using the System Optimizer and PaR Models as proposed by the Company is appropriate.
- The Office has concerns relating to the preferred portfolio, heavy reliance on FOTs and 12% PRM used in the deterministic analysis and how these issues may bias the ultimate selection of a resource associated with this RFP.

-- The Commission should ensure that the IRP and RFP are aligned on the weighting scheme used by the Company for ranking portfolios and may want to provide further guidance as requested by the Office in its IRP comments. The Commission may also want to request input from the IE regarding this issue.

-- The two-step decision process proposed by the Company for selecting a final short list and ranking bids within that list is reasonable.

-- The Company should maintain a back-up list of bids and work with the IE to develop and propose criteria for replacing bids eliminated from the final short list.