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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain Power for Approval of its Proposed Energy Cost Adjustment Mechanism	Docket No. 09-035-15

PREFILED DIRECT TESTIMONY OF NANCY L KELLY

Phase II, Part 2

ON BEHALF OF

WESTERN RESOURCE ADVOCATES

AND

UTAH CLEAN ENERGY

August 4, 2010

I. INTRODUCTION

Q: Please state your name, employer and present position.

A: My name is Nancy L Kelly. I am employed by Western Resource Advocates (WRA) in its Energy Program as a Senior Policy Advisor.

Q: Have you previously filed testimony in this docket?

A: Yes. I filed Direct Testimony on November 16, 2009 and Surrebuttal Testimony on January 5, 2010 in Phase I of this docket on behalf of WRA, and Direct Testimony on June 16, 2010 in Phase II, Part 1, on behalf of WRA and Utah Clean Energy (UCE).

Q: On whose behalf are you submitting testimony today?

A: WRA and UCE.

Q: What is the purpose of your testimony?

A: This docket has been divided into two phases with three rounds of testimony. The first phase was to determine whether an ECAM was in the public interest. If so, the proceeding would continue into a second phase to address ECAM design. However, in its order issued February 8, the Commission determined that "a final conclusion on the public interest is dependent upon a number of matters and evidence which were not sufficiently developed at the conclusion of Phase 1."[1] The Commission expressed an interest in examining alternatives that would address PacifiCorp's claims of difficulty in recovering its net power cost "consistent with a reasonable balance of public policies."[2]

[1] Docket No. 09-035-15, Report and Order at 2.
[2] Ibid.

And the Commission expressed a desire to have a further record developed with regard to market reliance and gas hedging, which the Office of Consumer Services raised as threshold issues. The Commission concluded that the docket would continue into Phase II "to make this exploration together with all other relevant areas of inquiry."[3]

Because the Office of Consumer Services advanced market reliance and gas hedging as threshold issues, in developing the schedule for Phase II, it was determined to set two schedules in Phase II, the first addressing the relation of market reliance and natural gas hedging to an ECAM and the second to other design issues. On behalf of WRA and UCE, I submitted testimony June 16, 2010 related to market reliance and natural gas resource acquisition. Consistent with the Commission's invitation in its February 8 order to "make this exploration together with all other relevant areas of inquiry," in that testimony I proposed a mitigation mechanism to address what I consider to be a fatal flaw in any ECAM design—the incentive to rely more heavily on resources with volatile and unknown costs to meet customers' needs over the long run. In this testimony I further develop this mechanism and address certain other specifics of an ECAM design.

II. RESOURCE ACQUISITION TARGETS

Q: Please summarize your fundamental concern with an ECAM.

A: Electricity provision is a natural monopoly and is therefore regulated in order to assure that service quality and pricing reflect the public interest. Regulation seeks to provide incentives that most closely mimic the discipline of a market. My primary concern with an ECAM is how it affects management incentives to operate efficiently and to acquire

[3] Ibid.

the mix of resources over time that best serves the public interest. In this docket, I have focussed primarily on long-run planning incentives.

Both theory and after-the-fact studies in the academic literature verify that an ECAM distorts long-run planning incentives in favor of the acquisition of resources whose costs are captured by an ECAM. Unless short-term wholesale purchases and natural gas are excluded from PacifiCorp's ECAM, which would nullify the Company's purpose in requesting an ECAM, the bias created will strengthen PacifiCorp's incentive to meet customer's growing resources needs with natural gas fired resources and to use short-term wholesale electricity purchases to meet capacity requirements.

Because of the price-risky nature of these resources, I consider an incentive toward these resources not to be in the public interest. If the incentive were toward resources that best protect customers, the change in the resource acquisition incentive could be in the public interest. Unfortunately this is not the case.

The wholesale electricity market and natural gas markets are volatile with asymmetric risks. From any reasonable level, prices can soar higher than they can fall. Therefore the full cost of a strategy that relies heavily on these resources is unknown at the time it is entered into. Market purchases can be partially hedged 3 months to 3 years out through what the Company terms "Front Office Transactions," but if the wholesale markets are disrupted, the Company will not be able to replace those purchases as they expire at the same price as before. Therefore meeting capacity needs with this type of resources incurs risk. And, while the capital costs of natural gas resources are generally known at the time the decision is made to acquire such a resource, fuel over the life of the resource is an unknown and depends on what occurs in the natural gas markets over the life of the plant. Because natural gas as a fuel has become highly volatile, natural gas resources are also "risky." Without an ECAM, shareholders share in the risk that the cost of a market heavy and natural gas heavy resource mix will be higher than expected. However, if an ECAM is in place, the full cost of these resources will be passed through to customers. Shielding shareholders from all but prudence risk removes a natural disciplining force.

Conversely, other resources, including renewable and demand side management resources, have little to no variable cost for inclusion in an ECAM. Fuel for these resource types is virtually free. The majority of the costs are capital costs that are incurred upfront. In the case of renewable resources, the capital costs are ratebased and then recovered over the life of the facility.[4]

However, when capital is constrained, management prefers resource acquisitions with smaller capital outlays. By creating a bias in favor of market and natural gas resources with their smaller capital requirements, an ECAM furthers a disincentive to acquire resources that require upfront capital outlays. These incentives in favor of market and natural gas resources and disincentives for renewable resources and DSM are significant to customers at this time, because PacifiCorp's planning studies have demonstrated that renewable resources and DSM best manage risk and uncertainty.

Several witnesses discussed this fundamental concern of mine in Phase I. I described the effect of an ECAM on resource acquisition incentives in my Direct[5] and Surrebuttal[6]

[4] The cost of DSM programs are recovered through a tariff rider.
[5] Docket No. 09-035-15 Phase I Direct Testimony of Nancy Kelly for WRA *passim*.
[6] Docket No. 09-035-15 Phase I Surrebuttal Testimony of Nancy Kelly for WRA at lines 64-222.

testimony. Mr. Paul Chernick, a witness for the Office of Consumer Services, provided a review of some of the academic literature pertaining to this point,[7] and Mr. Frank Graves, a witness for the Company, described biasing-effects related to ECAMs in his Phase I Rebuttal Testimony.[8]

Q: What did you conclude?

A: I concluded that no ECAM could be in the public interest because no design could address this fundamental flaw.

Q: Is this still your conclusion?

A: I still believe that an ECAM design itself cannot address the long-run planning bias. However, if the Company is implementing the resource acquisition strategy that is shown through its planning studies using the Commission's three-step process for evaluating risk and uncertainty to best protect customers over the long-run, and a mechanism is put in place to assure that customers only bear the risk of this strategy and none other through the implementation of an ECAM, then the fact that an ECAM distorts resource acquisition incentives would be less problematic.

During the January 12, 2010 Phase I hearing, Commissioner Campbell questioned me and expressed surprise that I would oppose an ECAM rather than seeing it as an opportunity "to put teeth into the IRP." I thought about his question at length during the intervening time period, and proposed in my June 16, 2010 testimony a mitigation

[7] Docket No. 09-035-15 Phase I Direct Testimony of Paul Chernick on behalf of the Utah Office of Consumer Services at lines 841-953.
[8] Docket No. 09-035-15 Phase I Rebuttal Testimony of Frank C. Graves on behalf of Rocky Mountain Power at lines 449-59 (acknowledging the biasing effects of having versus not having an ECAM).

mechanism to be used in conjunction with an ECAM that would resolve my concern with the incentive effect of an ECAM on long-run resource acquisition.

Specifically I proposed that the Commission "require the Company to meet energy efficiency and renewable resource targets and limit the Company's use of the short-term wholesale power market to meet capacity requirements. Such targets and limits would be consistent with the portfolio that best manages risk and uncertainty as determined through the integrated resource planning process using the Commission's suggested three-step approach."[9]

With some slight modification of this approach, I believe this would address my fundamental concern regarding long-run resource acquisition.

Q: Please explain what you mean by slight modification.

In my June 16, 2010 testimony I suggested a combination of targets and limits. In particular, I suggested requiring demand side management and renewable resource acquisition targets with limits on short-term purchases used to meet forecasted capacity requirements. A simpler approach may be to require the Company to meet resource acquisition targets without attempting to limit market activity. If PacifiCorp acquires the mix of resources that best balances cost, risk and uncertainty as identified using the Commission's three-step process (*see below*) for evaluating risk and uncertainty, the appropriate level of market activity should follow.

Q: What do you mean by the appropriate level of market activity?

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[9] Docket No. 09-035-15 Phase II, Part 1, Direct at 11-12.

A: At times there will be opportunities in the market that can meet load at a lower cost than can Company-owned resources. At other times, the Company can make sales from its resources that exceed the additional operating cost. This is appropriate market activity and good for both customers and shareholders. Regulatory mechanisms should not interfere with this appropriate use of the market to reduce overall operating costs.

Q: Every time a new IRP is conducted the results of planning studies could change. How would you establish resource acquisition targets and determine whether PacifiCorp is in compliance?

A: Every two years, PacifiCorp conducts an integrated resource planning process that incorporates the Commission’s three-step approach to determining risk and uncertainty.

The approach contains the following three steps: “1) Identify the optimal portfolios for a relatively broad, and consistently applied, set of fixed input assumptions; 2) subject the unique sets of these portfolios to stochastic risk analysis and identify superior portfolios with respect to the tradeoff between expected cost and risk exposure; 3) examine the cost consequences of the superior portfolios with respect to uncertainty by subjecting the portfolio to evaluation under the initial set of relatively broad fixed input assumptions.”[10]

Use of the three-step approach identifies a 20-year portfolio that best balances cost, risk, and uncertainty across multiple possible futures.[11] Associated with this identified least cost, least risk portfolio, the Step-Three Portfolio, would be a three-year Action Plan

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[10] Public Service Commission of Utah, *Report and Order, In the Matter of the Acknowledgement of PacifiCorp’s Integrated Resource Plan*, Docket No. 09-2035-01, April 1, 2010, p. 19. (The same information is found on page 40 of the order issued February 6, 2008 in Docket No. 07-2035-01.)

[11] I will refer to this portfolio as the “Step-Three Portfolio.”

based on the resource mix identified therein. If PacifiCorp takes the actions identified in the Step-Three Portfolio Action Plan in the two years prior to the year in which it is seeking recovery through an ECAM, it would be considered compliant.

Q: What is the basis for using the past two years rather than the past three, which is the term of the Action Plan?

A: Since PacifiCorp files a biennial IRP, its Action Plan may change every two years, so two-years would represent the time frame of the action plan from the most recent complete IRP process. If PacifiCorp filed a triennial IRP, as do the Nevada utilities, I would recommend using three years of actions.

Q: How would you treat years when the Company did not fully meet its acquisition targets?

A: The adjustment mechanism would only take effect if the Company meets the acquisition targets based on its Step-Three (least cost, least risk) portfolio.

Q: PacifiCorp updates its acquisition plan annually as part of the development of the Ten-Year Business Plan. Would an action plan arising from this process be used for the purpose of evaluating compliance with targets?

A: Only if the plan was developed using the three-step process to assure that the plan balances cost, risk, and uncertainty, since customers would not only be paying the cost but also assuming the risk that costs are higher than expected. If the ten-year plan did not incorporate this process, no.

Q: Economic conditions can change quickly and dramatically as recent experience

demonstrates. Shouldn't resource acquisition targets reflect the action plan developed with the most recent information?

A: Future economic conditions will always be unknown. Forecasts will nearly always be wrong. One of the purposes of conducting risk and scenario analysis as part of an integrated resource planning process is to understand how different types of resources contribute to or help to mitigate potentially excessive costs associated with different futures. The purpose of the three-step process recommended by the Commission in it's past two IRP orders is not to identify a portfolio that will be least-cost if the set of assumptions underlying the construction of the portfolio comes about, but to identify a portfolio that will perform well under a range of possible alternative futures. So, as long as the expected changes remain within the futures studied in the planning process, the chosen portfolio should remain relatively robust.

However, there are unusual times when conditions do change significantly in ways previously not expected and therefore not studied. If conditions change so dramatically and rapidly that past studies are no longer valid, new analysis should be conducted. If, as a result of the new analysis, the Company believes its previous three-year action plan does not serve customers well, the Company could file for approval of a revised action plan to become the basis for evaluating compliance. The risk associated with the revision and determination of how the risk should be shared could be evaluated and determined in that proceeding.

Q: It appears this proposal replaces Company management's expertise with a prescriptive regulatory approach. Do you agree?

A: No. The Company may implement any resource acquisition strategy it chooses—just as it does today. However, in order to pass on the full risk of that strategy to customers through an ECAM it must demonstrate that its choice is the strategy that best balances cost, risk, and uncertainty.

Q: Do you consider this proposal to require a fundamental change to integrated resource planning?

A: No. This proposal does not change the planning process. The only change would be to require the Company to develop an action plan for the Step-Three Portfolio. Currently, the Company develops an action plan only for the portfolio it determines is its Preferred Portfolio.

Q: By requiring an Action Plan to be developed for the Step-Three Portfolio, isn't the Commission dictating to the Company what its Preferred Portfolio will be?

A: No. As indicated above, the Company can still identify any portfolio it chooses as preferred and implement any resource acquisition strategy it chooses, but Utah customers would not solely pay the cost if the future did not unfold as PacifiCorp management expects. Between rate cases shareholders would share the risk that costs exceed forecasts as is done today. Prudence determinations would be made during rate cases as is done today.

III. OTHER DESIGN COMPONENTS

Sharing Bands

Q: To what extent would the Company be able to pass NPC through to consumers if it

is compliant with resource acquisition targets?

A: We propose a 70%/30% sharing band if the Company is compliant with resource acquisition targets. That is, the Company would be able to pass 70% of the allowed NPC components onto consumers through the ECAM. The Company could get recovery for the remaining costs in a rate case or other appropriate proceeding.

Q: What is the purpose of requiring sharing bands if resource acquisition targets address your concern with long-run resource planning?

A: Sharing bands counter the disincentive effect of an ECAM on efficient operation. As I discussed earlier in this testimony, regulatory mechanisms should not interfere with the appropriate use of the market. We would like PacifiCorp's traders to aggressively seek to contain costs through appropriate market purchases and sales when these purchases and sales lower the overall cost of operation. An ECAM without sharing bands removes the incentive to undertake these activities since the benefits flow directly to customers when an ECAM is in place. Sharing bands provide the incentive to continue to operate efficiently.

Q: What sharing bands would you propose if PacifiCorp were not in compliance with resource targets?

A: No net power costs would be included in an ECAM mechanism.

Rolled-in Allocation Method

Q: How could the Commission assure that Utah customers do not bear the risk and pay the cost of replacing hydro resources with market purchases in low water years

without receiving the benefit of these resources?

A: If the Commission approves an ECAM, use of a rolled-in allocation method will be necessary.

Load Growth Revenue Adjustment Mechanism

Q: Should the revenues associated with loads in excess of test year forecasts be credited against net power costs?

A. Yes.

Exclusion of SO2 and REC revenues

Q: How should SO2 and REC revenues be treated with the implementation of an ECAM?

A: SO2 and REC revenues are not specifically net power components and therefore should not be included in an ECAM; they should be tracked and addressed in a rate case or some other proceeding.

Addition of future ECAM components

Q: How should additional ECAM components be dealt with in the future?

A: If, at the end of this docket, the Commission determines that some form of an ECAM is in the public interest, the Company must file an application with the Commission to include any additional cost components not specifically approved in this docket. WRA and UCE request that the Commission make the requirement to file an application explicit in its order, should it approve some ECAM design.

IV. CONCLUSION

Q: What is your overall conclusion?

A: WRA and UCE continue to consider the long-run resource acquisition biases introduced by an ECAM to be a fatal flaw that must be addressed before an ECAM can be in the public interest. Therefore, inclusion of resource acquisition targets, consistent with the portfolio identified as performing best through performing the Commission's three-step process for evaluating risk and uncertainty in the integrated resource planning process is critical to assuring the public interest is met over the long run. If resource acquisition targets and strong sharing bands are used, the disincentive effects of an ECAM might be overcome so that an ECAM could be in the public interest.

Other necessary elements of an ECAM include cost sharing, use of a rolled-in allocation method, and a load growth revenue adjustment. REC and SO2 sales revenue should not be included in the mechanism. In addition, WRA and UCE recommend that the Commission make explicit that the inclusion of any future cost category in an ECAM would require Commission approval following a regulatory proceeding.

Q: Does this conclude your testimony?

A: Yes.