ORIGINAL

0000081968

RECEIVED

2008 FEB 19 A 11: 01

AZ CORP COMMISSION
DOCKET CONTROL

47

WESTERN RESOURCE ADVOCATES

INTERWEST ENERGY ALLIANCE

February 19, 2008

Arizona Corporation Commission
DOCKETED

FEB 19 2008

DOCKETED BY nr

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

RE: Comments on Integrated Resource Planning (All Non-Procurement Issues)
Docket No. E-00000E-05-0431

Attached are the responses of Western Resource Advocates and the Interwest Energy Alliance to integrated resource planning questions posed by Staff at its workshop held on January 11, 2008.

Sincerely,

David Berry

David Berry
Senior Policy Advisor
Western Resource Advocates

Amanda Ormond

Amanda Ormond
Southwest Representative
Interwest Energy Alliance

Original and 13 copies filed with Docket Control

WESTERN RESOURCE ADVOCATES
PO BOX 1064
SCOTTSDALE, AZ 85252-1064

**Comments of Western Resource Advocates**
**And Interwest Energy Alliance**
**ACC Workshop on Resource Planning**
**(All Non-Procurement Issues)**
**Docket No. E-00000E-05-0431**

**February 19, 2008**

In the resource planning workshop held on January 11, 2008, Staff asked interested parties to submit comments on specific issues in developing a resource planning rule. Western Resource Advocates and the Interwest Energy Alliance hereby submit their comments on the following issues:[1]

- Purpose of the plan ("plan defined")
- Applicability of the rule ("applicability")
- Scope of the plan ("explicit list")
- Filing schedule ("filing interval")
- Planning horizon ("forecast horizon")
- Commission action ("approval vs. acknowledgement")

***Response to Staff Questions***

1. **Purpose of the plan**. The resource plan should choose a mix of resources to pursue multiple objectives:

   - reliably serve the demand for electric energy services
   - minimize the environmental impacts of power production, including the emission of greenhouse gases
   - effectively manage uncertainty and risk associated with costs, environmental impacts, load forecasts, etc.

   Other states recognize the need to consider multiple goals. For example, Colorado revised its resource planning process in December 2007 to reflect a wider range of goals.[2] The Commission shifted "from a least-cost standard to a broader, more subjective consideration of multiple criteria which will require substantially more Commission involvement in the resource selection process. This criteria shift applies not only to DSM measures, but also to the evaluation of all other resources."[3]

---

[1] Staff's titles for the issues are shown in parentheses.

[2] Colorado Public Utilities Commission Decision No. C07-1101.

[3] Colorado PUC Decision No. C07-1101, pp. 3-4.

In its guidelines for resource plans, the Arkansas Public Service Commission identified the objectives of a resource plan as including "low cost, adequate and reliable energy services; economic efficiency; financial integrity of the utility; comparable consideration of demand and supply resources; mitigation of risks; consideration of environmental impacts; and consistency with governmental regulations and policies. In meeting the objectives, the utility should put itself in a position to respond to anticipated economic conditions and technological advancements and changes, including environmental requirements."[4]

New Mexico's resource planning rules are intended to identify the most cost effective resource portfolio but the rules reflect an expansive interpretation of the most cost effective resource portfolio: "utilities shall evaluate all feasible supply and demand-side resource options on a consistent and comparable basis, and take into consideration risk and uncertainty (including but not limited to financial, competitive, reliability, operational, fuel supply, price volatility and anticipated environmental regulation)." Utilities must consider, among other things, existing and anticipated environmental regulations and system reliability.[5]

Of course, costs of resource alternatives are critical considerations in developing a plan. We recommend that resource planning take the perspective of societal costs, as opposed to utility revenue requirements, and that lifecycle costs be used.

However, it should not be the objective of resource planning to minimize the present value of future cost streams because of the great uncertainties about future costs and because of the incommensurability of the multiple factors to be considered. With regard to uncertainty, fossil fuel prices cannot be reliably projected over the long run.[6] Additionally, the cost of complying with future greenhouse gas emission regulations is highly uncertain.[7] With regard to incommensurability of factors, it is not possible to meaningfully collapse risk, environmental, reliability, and economic issues into a single metric. Attempts to minimize the present value of a highly uncertain stream of costs would be an exercise in arbitrary number crunching and

---

[4] Arkansas Public Service Commission, "Resource Planning Guidelines for Electric Utilities," no date, p. 2.

[5] 17.7.3.9. G 1 and 2 NMAC and 17.7.3.6 NMAC.

[6] The Energy Information Administration conducted a review of its forecasts and found that, for long-term forecasts made from 1982 through 2006, the average absolute percent error (comparing forecasted prices and actual prices) for coal prices paid by electric generating plants was about 47% and that for natural gas wellhead prices was about 64% — both enormous forecasting errors. Energy Information Administration, *Annual Energy Outlook Retrospective Review: Evaluation of Projections in Past Editions (1982-2006),* DOE/EIA-0640(2006), 2007, Table 2. This inability to forecast prices indicates that future fuel prices are highly uncertain. Commitments to new fossil fuel power plants automatically bring along a high degree of cost risk over the life of the plant (50 years or more).

[7] Carolyn Fischer and Richard Morgenstern, "Carbon Abatement Costs: Why the Wide Range of Estimates?" *The Energy Journal* 27 (2006): 73-86.

may distract from gaining insight into the multiple factors that bear upon resource selection.

Therefore, we recommend that Arizona's resource planning rule pertain to "resource planning," not "least cost" planning, and that the resource planning rule encompass the multiple objectives listed above.

2. **Applicability**. We recommend that the resource planning rule pertain to all electric utilities subject to the jurisdiction of the Commission, including rural electric cooperatives. Filing requirements of cooperatives and small utilities may be a subset of the requirements for large investor owned utilities in recognition of their smaller size and more limited resources. Cooperatives which have most of their retail customers located in another state should be exempted from the rule.

3. **Scope of the plan**. Resource plans should incorporate the information and analyses listed below. The plan documents themselves should be brief and to the point.

    - Summary of the plan, including one or more load & resources tables
    - Multiple objectives of the plan
    - Summary of general industry conditions affecting the power sector
    - Description of the public input process used to develop the plan (see the discussion in the section on public participation, below)
    - Load forecasts and analysis of uncertainty of load forecasts, including the effects of weather; load forecasts should explicitly show the effects of energy efficiency programs
    - Existing resources, their costs and operating characteristics, and uncertainties about these factors
    - Determination of resource requirements
    - New resource options, their projected costs, fuel sources, availability, efficiency, dispatchability, modularity, other characteristics, *and uncertainties about these factors*
        i. Resource options should explicitly include: energy efficiency, renewable energy, combined heat and power (CHP), and emerging advanced technologies such as those which reduce greenhouse gas emissions and other pollutants
        ii. Options should include transmission and distribution needs and take account of losses
        iii. Uncertainty analysis should focus on extreme outcomes, not small deviations from measures of central tendency, so as to identify vulnerabilities
    - Reserves
    - System reliability analyses (e.g., LOLP, unserved energy, and analyses pertaining to transmission and distribution reliability)
    - Environmental impacts and uncertainties, including: air emission quantities (metric tons or pounds) and rates (quantities per MWh) for carbon dioxide, sulfur dioxide, nitrogen oxides, mercury, particulates, and other air emissions

subject to current or future environmental regulation; and water consumption quantities and rates

- Fuel price forecasts and uncertainties associated with future costs
- Capital cost forecasts and uncertainties associated with future costs
- Costs of complying with existing and potential future environmental regulations and uncertainties in these costs
- Other pertinent cost forecasts and associated uncertainties
- Risk management objectives and plans
- Description of the proposed plan and the reasons for selecting the plan, including a schedule for resource acquisition
- Action plan for approval/acceptance by the Commission; the action plan applies to actions to be taken during the 3 or 4 years following Commission acceptance/approval of the plan in furtherance of the approved plan.
- Procurement plan for resources
- Appendices with technical information, analyses, and data.

4. **Filing schedule**. Resource plans should be filed every three years. To reduce Staff's and the Commission's burden, plans could be filed on a staggered basis so that not all utilities would file in the same year. Utilities could file updates to plans for Commission review if they propose major changes between triennial filings. Major changes include those involving material changes in costs, timing of resource acquisition, or the resources to be acquired or not acquired.

5. **Planning horizon**. Because of the long lead times for some resources, the planning horizon should be 20 years with regard to the addition of new resources. In order to provide a fair picture of resource options, the plan should take into account the lifetime costs of resource options considered for operation during the planning horizon.

6. **Commission action**. Resources having major environmental benefits or exhibiting long term cost stability should be encouraged by Commission policy. For example, energy efficiency or new clean energy technologies, such as central solar power with storage or fossil fuel technologies with carbon dioxide capture and storage, could play an important role in a resource plan. Additionally, policies to encourage commercialization of new technologies would benefit society. New and emerging technologies are unlikely to be the cheapest resource available at the time, and traditional utility regulation could disallow recovery of costs in excess of "market costs," thereby making early adoption highly risky for utilities.

   Therefore, components of resource plans that incorporate investments in resources with major environmental benefits or investments which have long term price stability (e.g., due to the absence of fuel costs) should be given special consideration by the Commission.[8]

---

[8] The Commission has begun moving toward a policy of encouraging environmental improvements. In Decision No. 69663, (p. 86), the Commission stated that "... APS should be proactive rather than reactive

Of course, the Commission must balance the need to encourage environmental improvements, cost stability, and new technologies with its role of protecting ratepayers from managerial misjudgments. Therefore, we recommend that when utilities file their resource plans to deploy environmentally beneficial resources or stably priced resources they be permitted to request that the Commission either:

a. Pre-approve cost recovery for environmentally beneficial resources or stably priced resources, contingent upon acceptable project progress and operation as reviewed regularly by the Commission, or
b. Commit to a rate of return premium (applied in subsequent rate cases) for investments in specific resources that actually achieve substantial environmental benefits consistent with or exceeding projected environmental benefits or actually achieve stable costs.

The Commission's actions should be taken only after conducting an evidentiary hearing in which the public has an opportunity to provide testimony.

A time limit of 5 to 6 months to complete processing a resource plan is reasonable, including time for Staff and intervenor testimony, utility rebuttal, a hearing, and a Commission decision. This time limit can be met if each utility conducts a comprehensive public input/advisory process prior to and during the preparation of its resource plan as explained in the section below. A fast turn-around time can be further facilitated if utilities do not all file their plans in the same year.

***Public Participation***

Each utility should be required to conduct a public participation process in the development of its resource plans. Public input can enhance the creation of choices and may allow for collaborative agreements among the utility and interested parties. Public input should be "advisory," so that interested parties and utilities can have a dialogue as opposed to mere presentation of the public's concerns without interaction with the utility. Where interactive public participation occurs during plan-making, utilities and interested parties can jointly identify better ways to analyze issues and invent a wider range of possible solutions to planning issues. Further, public participation during the plan-making phase can reduce disputes and misunderstandings after the plan is formally filed and shorten the time needed to formally review a filed plan. The New Mexico IRP rule provides for a public advisory process.[9]

---

on issues of environmental improvement." In that order, the Commission authorized APS to establish an account funded by a surcharge (the Environmental Improvement Surcharge) for funding mandatory or voluntary environmental improvements, such as pollution reduction equipment on power plants.

[9] 17.7.3.9 H, NMAC. At least one year prior to the filing date of its IRP, a utility must initiate a public advisory process to provide information to and to receive input from the public regarding the development of its IRP. The utility must provide notice to the intervenors in its most recent general rate case and to the participants in its most recent renewable energy, energy efficiency and IRP proceedings at least 30 days prior to the first scheduled IRP advisory meeting. The Commission may designate a facilitator for the

### *Conclusions*

Arizona's resource planning process should incorporate the following principles:

1. The process should inform the Commission about resource issues prospectively in a resource plan, rather than after the fact, when cost recovery is requested in a rate case and when the Commission can do little to change the direction of resource commitments.
2. Consistent with this Commission's general practice, the process should be a public process, allowing full participation by intervenors. Citizens of the state, ratepayers, and other parties with a constructive interest should have the opportunity to contribute to the process.
3. The process should encourage innovation and imagination and should go beyond technical analyses of a narrow set of issues. Resource commitments have long term economic and environmental consequences and risks that should not be passively accepted as the cost of doing business.
4. The process should recognize the high degree of uncertainty about future streams of costs, especially fossil fuel costs and costs of complying with environmental regulations. Resource planning should therefore seek strategies to limit the potential for bad outcomes by creating reasonable hedges.
5. Resource planning should be a flexible and timely process that reflects rapidly changing conditions and imminent resource needs and opportunities.

Lastly, we recommend that Staff consider completing a draft rule so that the formal rulemaking process can begin by the end of summer, 2008. To achieve this schedule, we recommend that Staff prepare a draft rule within one month, taking into account the comments of the parties to date, and that a series of workshops be held for the parties to hash out changes to the draft rule.

---

process. The utility leads the process (as chairperson) but participants are allowed to place items on the agenda. Meetings are open to the public. Topics to be discussed include load forecasts, evaluation of existing resources, assessment of the need for additional resources, identification of resource options, modeling and risk assumptions, the costs and attributes of potential resources, and the development of the portfolio of resources.