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Arizona Corporation Commission

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IN THE MATTER OF THE GENERIC
PROCEEDINGS CONCERNING
ELECTRIC RESTRUCTURING ISSUES.

Docket No. E-00000A-02-0051

IN THE MATTER OF ARIZONA PUBLIC
SERVICE COMPANY'S REQUEST FOR
A VARIANCE OF CERTAIN
REQUIREMENTS OF A.A.C. R14-22-1606.

Docket No. E-01345A-01-0822

IN THE MATTER OF THE GENERIC
PROCEEDING CONCERNING THE
ARIZONA INDEPENDENT
SCHEDULING ADMINISTRATOR.

Docket No. E-00000A-01-0630

IN THE MATTER OF TUCSON
ELECTRIC POWER COMPANY'S
APPLICATION FOR A VARIANCE OF
CERTAIN ELECTRIC COMPETITION
RULES COMPLIANCE DATES.

Docket No. E-01933A-02-0069

REPLY TESTIMONY OF

DAVID BERRY

LAND AND WATER FUND OF THE ROCKIES

November 18, 2002

Reply Testimony of David Berry
Land and Water Fund of the Rockies
Docket No. E-00000A-02-0051 et al.

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1 **Introduction**

2
3 Q. Please state your name and state whom you represent.

4 A. My name is David Berry. I represent the Land and Water Fund of the Rockies (LAW
5 Fund) in this matter.

6
7 Q. Did you file direct testimony in this docket?

8 A. Yes. I filed direct testimony on November 12, 2002.

9
10 Q. What is the purpose of your reply testimony?

11 A. I would like to respond to Harquahala Generating Company's (HGC's) proposal that
12 the Commission adopt a criterion that the competitive solicitation process seek to
13 minimize the net present value of rate impacts. I would also like to address several
14 points in the Residential Utility Consumer Office's (RUCO's) testimony.

15
16 **HGC's Proposed Rate Impact Criterion**

17
18 Q. What is HGC's proposed economic criterion?

19 A. On pages 23 and 24 of his testimony, Thomas Broderick recommends that the
20 Commission adopt as the criterion for competitive solicitations the minimization of
21 the net present value of rate impacts. The rate impacts are to be computed by
22 dividing discounted total annual revenue requirements "by the total utility kilowatt-
23 hour requirement for that year and averaged across the years of the planning period."
24 All resources, including a utility's existing generation and purchased power contracts
25 are to be included.

26
27 Q. Does Mr. Broderick's proposal raise any concerns?

28 A. Yes. I appreciate Mr. Broderick's desire to place a decision framework around the
29 competitive solicitation process that will result in benefits for ratepayers. However,
30 the choice of a criterion or criteria must be made with care. There are two problems

1 with the rate impact test and the revenue requirements analysis that goes into the rate
2 impact test:

- 3 a. A necessary condition for a test based solely upon utility revenue requirements to
4 be valid is that all environmental impacts be internalized so that all the costs of
5 those impacts appear in the revenue requirements. If some environmental
6 impacts are not internalized by the utility, a focus on revenue requirements will
7 ignore the ecological, public health, aesthetic, and other environmental costs
8 associated with power production. That is, any costs which can be put upon
9 consumers or the environment and that are not reflected in utility revenue
10 requirements will be ignored. Sweeping environmental costs of power
11 generation under the rug is not in the public interest. In addition, as I pointed out
12 in my direct testimony, some environmental impacts of electricity generation
13 carry significant risks of increased costs to ratepayers attributable to future
14 environmental regulatory requirements. An analysis of utility revenue
15 requirements that does not account for these risks could lead to increased costs
16 for ratepayers in the long run.
- 17 b. Translating revenue requirements (dollars) into rate impacts (dollars per kWh)
18 introduces a significant distortion into the decision criterion. Cost effective
19 demand side management (DSM) will reduce kWh sales. Consumers will benefit
20 from cost effective DSM because the total cost of meeting their demand for
21 electric energy services will decrease. The rate impact test will report that
22 electricity rates will go up because the utility's sunk costs will be spread over
23 lower kWh sales, *ceteris paribus*. But, relying on the rate impact test would be
24 misleading because it would falsely indicate that cost effective DSM is a bad
25 investment for society. The rate impact test gives misleading information about
26 DSM because it incorporates irrelevant costs into the analysis and does not
27 provide a comprehensive comparison of costs of alternatives in the proper units.
28 The irrelevant costs are the sunk costs of the utility such as past investments in
29 existing power plants. These costs cannot be undone. The relevant costs for
30 resource acquisition are incremental costs, i.e., costs that will be incurred going

1 forward. The proper comparison of alternatives involves the incremental costs
2 incurred by society to implement each alternative. For example, one should
3 compare the incremental costs of resource mixes containing only generation and
4 resource mixes containing generation and various levels of DSM. The mix with
5 the lowest costs for society is the preferred option, holding constant all other
6 factors, such as exposure to price volatility or environmental risk. The proper
7 unit of analysis is dollars, not dollars per kWh: consumers pay their bills with
8 dollars and utilities purchase resources with dollars.

9
10 **Response to the Residential Utility Consumer Office**

- 11
- 12 Q. Dr. Rosen, on behalf of RUCO, recommends that the Commission employ a test
13 using the present value of revenue requirements to determine whether a resource
14 acquisition plan is the best plan (pp. 6, 7, 8, 25). Dr. Rosen also implies that the
15 Commission previously employed such a test in its Resource Planning Rules (e.g., p.
16 25). Do you have any comments on Dr. Rosen's approach?
- 17 A. Yes. I agree with Dr. Rosen that it is necessary to look at resource acquisitions in a
18 comprehensive and systematic manner. But, as stated above with respect to Mr.
19 Broderick's testimony, the revenue requirements test is valid only under special
20 circumstances. I would also like to correct the history of cost tests used in Arizona.
21 The Commission did not adopt a revenue requirements test as the criterion for
22 selecting the best resource plan. Decision 57589, regarding the first cycle of resource
23 planning, states that the resource planning rules "were adopted by the Commission
24 for the purpose of minimizing the total cost of providing electric energy services by
25 improving long range planning" (p. 4). That decision also states that "the primary test
26 should be the Total Societal Test with consideration given to environmental
27 concerns" (p. 10). A.A.C. R14-2-703(F) states that utilities are to select the plan
28 which "will tend to minimize the present value of the total cost of meeting the
29 demand for electric energy services." Total cost is defined in the rule as all capital,
30 operating, maintenance, fuel, and decommissioning costs incurred in the provision or

1 conservation of electric energy services borne by end users, utilities, or others,
2 including any adverse environmental effects.

3
4 Q. Dr. Rosen recognizes the importance of demand side management in lowering the
5 cost of meeting the demand for electric energy services. How does his proposal for
6 DSM compare with the LAW Fund's proposal?

7 A. On page 33, Dr. Rosen recommends that the formal solicitation process be delayed to
8 allow time for developing a more inclusive bidding process. On page 28, he
9 recommends that the regulated utility be required to bid into the resource mix, at
10 regulated cost of service rates, DSM sufficient to reduce its peak load by 2 percent
11 each year, with the expectation that about half of that would be selected as cost
12 effective. I agree with Dr. Rosen that DSM should not be overlooked in minimizing
13 the costs of meeting the demand for electric energy services. Our proposals are
14 similar in that the LAW Fund recommends that DSM resources be acquired and that
15 the cost effectiveness of DSM resources be evaluated against the avoidable costs of
16 supply side resources. We differ in that the LAW Fund did not propose delaying or
17 modifying the first cycle of competitive solicitations. In addition, the LAW Fund
18 proposed that the Commission determine the parameters of DSM programs after
19 workshops and a hearing.

20
21 **Recommendations**

22
23 Q. Do you have any recommendations based on the above review?

24 A. Yes. I recommend that the Commission not require that the present value of rate
25 impacts or revenue requirements be used to determine decisively which portfolio of
26 resources to acquire. The present value of rate impacts, in particular, should be
27 avoided because it improperly evaluates the benefits of DSM. The relevant costs for
28 resource acquisition are incremental costs, i.e., costs that will be incurred going
29 forward. The proper comparison of alternatives involves the incremental costs

1 incurred by society to implement each alternative, including consideration of
2 environmental costs and risk.

3 The LAW Fund does not wish to delay the first round competitive solicitations,
4 and it will take time for the Commission to develop an appropriate policy on
5 integrating environmental costs and risks into the solicitation process. I therefore
6 recommended in my direct testimony that the Commission establish a separate
7 proceeding on environmental risk management in preparation for the second and
8 subsequent cycles of competitive solicitation. I suggest that the Commission address
9 the issue of integrating environmental costs and risks into the decision criteria for
10 resource evaluation in that separate proceeding.

11

12 Q. Does this conclude your reply testimony?

13 A. Yes.

14

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