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BEFORE THE ARIZONA CORPORATION COMMISSION

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Arizona Corporation Commission

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AZ CORP COMMISSION
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IN THE MATTER OF THE GENERIC)
INVESTIGATION OF THE DEVELOPMENT OF)
A RENEWABLE PORTFOLIO STANDARD AS A)
POTENTIAL PART OF THE RETAIL ELECTRIC)
COMPETITION RULES.)

DOCKET NO. E-00000A-99-0205

**AEPCO'S POST-HEARING
MEMORANDUM**

The Arizona Electric Power Cooperative, Inc. ("AEPCO") submits its post-hearing memorandum in the above-entitled matter.

I. Introduction.

AEPCO is a generation and transmission cooperative owned by its six Class A member distribution cooperatives (the "Member Distribution Cooperatives") – five of which deliver power at retail in Arizona's rural areas. AEPCO has no shareholders and is a not for profit organization. Together, AEPCO and its Member Distribution Cooperatives have one primary goal – the delivery of electricity to rural Arizona at the lowest cost.

Initially, AEPCO stresses that it is not opposed to environmentally friendly and renewable technologies. It recognizes the economic and environmental benefits that renewable technologies and a robust solar industry can and do provide to the State. Over the past several years, AEPCO and its Member Distribution Cooperatives have actively analyzed and assisted their customer owners in implementing solar applications when they can be cost justified. Remote residential, agricultural and stock watering operations are a few examples of these types of applications.

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What AEPCO has not done, however, is install central station solar or other renewable resources-primarily for two reasons. First, as has been amply demonstrated in this record, solar or renewable resources are not least cost. Second, AEPCO has not needed and does not in the near future need any resources of whatever nature. AEPCO is required by the Rural Utilities Service ("RUS") to issue a solicitation for proposals for all new generation facilities. RUS will only fund needed, least cost facilities. Because of these requirements, AEPCO has not and could not in the future add solar or other renewable facilities because (1) they are not necessary and (2) they cannot be cost justified against more traditional generation technologies.

This proceeding was commenced to identify the true costs and benefits of incorporating an Environmental Portfolio Standard ("EPS") in the Retail Electric Competition Rules. Solar and other renewable technologies are not cost effective when compared against conventional technologies now and in the foreseeable future. That fact together with the fact that AEPCO requires no new generation resources are the primary reasons why AEPCO opposes the adoption of the EPS. Simply stated, EPS approval will not allow AEPCO and its Member Distribution Cooperatives to supply power to rural Arizona at the lowest cost.

II. For a Variety of Reasons, the EPS is not Cost Justified, Necessary nor Supported by the General Public.

Although there was a fair amount of disagreement among the parties on various aspects of the EPS, the parties agreed that solar and other renewable technologies are very expensive when measured against conventional technologies now and in the foreseeable future. Based on this record, the EPS simply can not be cost justified:

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- AEPCO estimates total additional net present value costs of \$31 million total or approximately \$1.7 to 2.9 million per year if the EPS were adopted.¹ Regardless of whether these increased expenses were added to existing costs or assessed through a new System Benefits Charge, the EPS, if adopted, would cause a rate increase for cooperative customer owners.
- New West estimates that the EPS would require additional solar capacity of 330 MW by 2010 with total installed capital costs for electric providers of approximately 1.3 billion dollars.² Mr. Gilliam of the Law Fund corroborated these installed capacity estimates.³
- Based on a recent PV installation, the City of Tucson estimates a cost of electricity generated by that facility of 33 cents per kWh – roughly eleven times the cost of conventional generation.⁴
- As compared to a cost of \$300/kW for new conventional turbine capacity, solar alternatives range from 20 to 30 times that amount. The City of Tucson’s recent five kW installation cost approximately \$9,500 per kW.⁵
- Mr. Annan of ACEIA testified that stand alone distributed PV system costs currently range from \$6,000 per kW for grid tied systems to \$8,500 to \$10,000 per kW for remote stand alone systems. He further testified that although the

26 ¹ AEPCO-1, page 7, lines 18 to 21.
27 ² NWE-1, page 8, lines 8 to 10.
³ Hearing TR, pp. 227 to 228; Exhibit JFG-5.
⁴ HR TR, page 98, line 9 to page 99 line 3.
⁵ Tucson-1, Exhibit A.

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PV industry recently concluded that reducing costs to \$3,000 per kW was possible by the year 2010 that will require market growth rates of 25% per year.⁶

Similarly, all witnesses agreed that the EPS will increase customer bills. Although different assumptions in different testimonies make accurate comparison difficult, impacts on residential monthly bills ranged from \$1.00 to more than \$4.00 per month and commercial impacts were, of course, much higher. Thus, EPS implementation would reduce, or based on some estimates, completely eliminate any savings to be expected from competition. Mr. Fox of APS estimated a rate increase of over 4.5 % under the EPS: “Such an increase would wipe out much of any rate reduction provided by APS’s competition settlement.”⁷

With particular reference to the cooperatives, the cost and rate increases which unarguably will be driven by adoption of the EPS would be net rate increases to Arizona rural consumers. Unlike APS and TEP, which currently have renewable costs built into their existing rate structures or included in a System Benefits Charge, the cooperatives have no such allowance in their rate structures nor an approved SBC. As a result, the increase caused by adoption of the EPS would translate to direct, additional costs that would be borne by rural customers.

The evidence also indicates that an EPS is not necessary to continue to drive down the cost of renewable technologies. For example, Mr. Davis of Kyocera, Inc., who also serves as president of the Solar Energy Industries Association, testified that over the past two decades solar delivered costs have dropped dramatically – obviously without the need for the increased Arizona ratepayer costs created by the EPS:

Q. (By Mr. Grant) So, the price [of PV generated electricity] dropped from \$50 per kWh to 15 to 30 cents per kWh in your opinion over that 19 year time horizon?

⁶ ACEIA-6, page 10, lines 5 to 15.
⁷ APS-1, page 28, line 26 to page 29, line 1.

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A. And we went from maybe 500 kilowatts of annual handcrafted production to 140 megawatts of annual production.

Q. And would I be correct that all of that occurred without a renewable resource standard in effect by this Commission?

A. It certainly may have occurred without this Commission's input, but the US government and others have provided substantial research support to bring that cost down.

Q. I'm sorry. Substantial subsidies and support for the industry?

A. Correct.⁸

Both internationally and domestically, the evidence indicated that several government supported or mandated programs are in effect currently in California, Texas, Spain and elsewhere which will continue to bring down the costs of renewable technologies. Rather than implement the EPS, AEPCO suggests that the Commission allow market forces and these programs to continue to reduce the price of renewable technologies to a point where they will be cost justified and beneficial. That is the least cost strategy for Arizona and its ratepayers.

Because of these rate impacts and the failure to justify the EPS on its own economic merits, Staff and a few other parties offered testimony that the adoption of the EPS would have significant benefits for the Arizona economy generally. Two observations. First, the infusion of several hundred million dollars in any capital investment will undoubtedly create jobs and produce economic benefits. The issue is, however, has the money been wisely spent? As already discussed, this record demonstrates that spending much more for a commodity than is necessary is

⁸ HR TR, page 181, line 15 to page 182, line 5.

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2 not a wise expenditure of capital resources. Second, as Mr. Cathers testified, it is exceedingly
3 unlikely that any general economic benefits arising from the EPS driven capital infusion in the
4 state would inure to the benefit of Arizona's rural areas.⁹ Thus, any general societal economic
5 benefits produced as a result of the EPS would not advantage the traditionally economically
6 depressed rural areas but instead would simply transfer resources from the state's rural to urban
7 areas.
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9 Finally, the survey conducted by Mr. Hernandez of the Behavior Research Center on
10 behalf of Staff indicates that Arizonans do not support the EPS:

11 Q. Are Arizona residents willing to pay more for solar-
12 generated electricity?

13 A. While residents reveal strong support for solar and
14 alternative clean energy development, they do not reveal a
15 willingness to pay higher monthly electric bills to receive
16 solar-generated electricity. Thus, we find that by a two-to-
17 one margin residents reject paying higher bills for solar-
18 generated electricity – 29 % willing versus 61 % not
19 willing. This attitude is consistent across demographic sub
20 groups. In a related question, when residents are asked to
21 indicate who they feel should pay for the additional cost of
22 generating solar electricity if utilities and other electric
suppliers are required to produce more, we find the
majority of residents (51%) believe that those people that
choose to receive solar-generated electricity should be the
ones to pay any additional costs. In comparison, only about
one in three residents (35%) believe the cost should be
spread among all rate payers.¹⁰ (Emphasis supplied)

23 Mr. Hernandez was quite candid when he stated that while residents may reveal strong
24 support for solar development they do not appear willing “to reach into their own pocket” to
25 pay higher fees for solar-generated electricity.
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⁹ AEPCO-1, pages 2 to 3.

¹⁰ Staff-3, page 5, line 22 to page 6, line 6.

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2 **II. The EPS Should Not Apply to AEPCO and Its Member**
3 **Cooperatives.**

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5 In his testimony, Mr. Cathers of AEPCO outlines several reasons why the EPS should not
6 apply to AEPCO and its Member Distribution Cooperatives:¹¹

- 7 • Of greatest concern are the increased costs created by the EPS. For AEPCO,
8 the net present value of the EPS in 1999 dollars is approximately \$31 million
9 or an annual real dollar expenditure of approximately of \$1.7 to 2.9 million.
10 Unlike APS and TEP which have certain renewable costs already built into
11 their rate structures or have approved System Benefits Charges, these are new,
12 additional costs which would cause a direct, net increase in the power bills of
13 thousands of rural Arizona consumers.
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15 • AEPCO does not currently need any new generating capacity – renewable or
16 otherwise. Yet, adoption of the EPS would require capacity additions of more
17 than 3.5 megawatts in the next three years.
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19 • Even assuming that new capacity additions were required, AEPCO’s primary
20 funding source for such additions is the RUS which only will finance least cost
21 facilities. As has already been discussed, AEPCO could not demonstrate that
22 solar or other renewable resources would be least cost leaving it in the position
23 of being unable to borrow monies to meet the EPS mandate.
24
25 • Similarly, unlike investor owned utilities, AEPCO has no venture capital to
26 devote to the capacity requirements of the EPS. Therefore, that source of
27 funds is not available either.

¹¹ See generally, Direct Testimony of Clifford A. Cathers, AEPCO-1.

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- To the extent that the investment generated by the EPS may have broader societal benefits, it is doubtful that much, if any, of this renewable industry development would redound to the benefit of the state's rural areas.
- Unlike other affected Utilities, AEPCO and its Member Distribution Cooperatives are not a single, integrated utility. Instead, generation and transmission functions are separated from distribution and five small to medium sized cooperatives serve consumers in widely dispersed areas of the state. This makes planning, coordination and administration of renewable programs much more difficult and expensive than other utilities.

In light of these factors, Mr. Annan, the lead organizer of the Arizona Clean Energy Industries Alliance, testified that the ACEIA would support waivers or exemptions from the EPS for the state's rural electric cooperatives:

I'm sensitive to the fact that the rural consumer is sometimes the most disadvantaged. We think the portfolio standard does provide unique opportunities to bring electricity to the rural sector where grid electricity is not competitive. But ACEIA stands ready to talk to the rural sector, to those who represent the rural sector to see whether or not these rules ought to be postponed for them or somehow waived for this immediate time until such time as it does begin to make real sense for them.¹²

Although AEPCO believes that the EPS should not be adopted generally by the Commission, it also maintains that if adopted there is ample justification for excluding the cooperatives from the EPS mandate.

¹² HR TR, page 493, lines 9 to 18.

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2 **IV. The Commission Does Not Have the Jurisdiction Or Authority to Adopt the**
3 **EPS Mandate**

4 The EPS requires Affected Utilities and ESPs to derive certain percentages of the power
5 they sell from solar or other renewable technologies. Further, the EPS establishes a penalty of 30
6 cents per kWh for any entity failing to meet its requirements and establishes a Solar Electric Fund,
7 apparently administered by the Commission, to use these penalty monies “to purchase solar
8 electric generators or solar electricity in the following calendar year for the use by public entities
9 in Arizona such as schools, cities, counties, or state agencies.”¹³ Arizona case law is clear that the
10 Commission has neither the authority nor the jurisdiction to adopt such requirements.
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12 As the Arizona Supreme Court has noted, “the Corporation Commission’s powers do not
13 exceed those to be derived from a strict construction of the Constitution and implementing
14 statutes.” *Williams v. Pipe Trades Industry Program of Arizona*, 100 Ariz. 14, 15, 409 P^{2d} 720,
15 721 (1966). Although the Commission is given broad power over the rates of public service
16 corporations in Article 15 of the Constitution, neither that Article nor any of the statutes in Title
17 40 authorize it to dictate either the power mix or the energy procurement activities of utilities.
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19 The EPS also constitutes an impermissible interference with utility management:

20 It must never be forgotten that, while the state may regulate with a
21 view to enforcing reasonable rates and charges, it is not the owner of
22 the property of public utility companies, and is not clothed with the
23 general power of management incident to ownership. *Southern*
24 *Pacific Co. v. Arizona Corporation Commission*, 98 Ariz. 339, 340,
25 404 P^{2d} 692, 694 (1965), citing *State of Missouri ex rel. Southwestern*
26 *Bell Telephone Co. v. Public Service Commission of Missouri*, 262
27 U.S. 276, 289 (1923).

¹³ Proposed R14-2-1609.F.

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In a situation strikingly similar to the EPS, the Arizona Attorney General has concluded that the Commission does not have authority to issue such mandates. In Attorney General Opinion I 79-099 (April 9, 1979), a Corporation Commissioner sought an opinion regarding whether the Commission could compel Arizona utilities to purchase fuel oil cooperatively or jointly. In response, the Attorney General stated that there are “no statutory or constitutional provisions mandating joint or cooperative fuel oil purchases by public service corporations furnishing electricity. . .” Moreover, the Attorney General concluded that such instructions would interfere with management’s prerogative and thus are beyond the power of the Commission.

Finally, the EPS’ penalty provision and its attempt to establish a fund and to direct the proceeds of that fund are clearly beyond the Commission’s constitutional and statutory jurisdiction. A.R.S. § 40-421 *et seq.* specifically delineates the Commission’s powers to enforce penalties for failure to comply with Commission orders and rules. Nowhere do those statutes or the Constitution give the Commission the power to enforce per kWh penalties such as those included in the ESP. Additionally, both the penalty and the creation of the Solar Electric Fund are in reality the exercise of the general power of taxation and appropriation – powers which are reserved to the legislature by the Constitution.

CONCLUSION

The evidence demonstrates overwhelmingly that the EPS cannot be cost justified, will increase consumer rates, is not needed to continue to reduce the high cost of renewables and is not supported by the general public. At a time when this Commission is moving, as a policy matter, to allow consumer choice, AEPCO urges the Commission to do the same in this area:

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(1) encourage voluntary renewable and green programs, (2) allow the market to dictate economic outcomes, (3) trust consumers to make decisions and (4) do not turn to government mandated programs such as the EPS.

Finally, should the Commission nonetheless elect to proceed further on the EPS, cooperatives should be exempted from participation at least until further Commission review of the standard in two to three years.

RESPECTFULLY SUBMITTED this 17th day of November, 1999.

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