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COMMISSIONER-CHAIRMAN
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ST. P. BRACKNEY
EXECUTIVE DIRECTOR

DOCKETED

MAY 07 1999

ARIZONA CORPORATION COMMISSION

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May 7, 1999

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RE: THE GENERIC INVESTIGATION OF THE DEVELOPMENT OF A RENEWABLE PORTFOLIO STANDARD AS A PORTION OF THE RETAIL ELECTRIC COMPETITION RULES (DOCKET NO. E-00000A-99-0205)

Dear Party Interested in Electric Competition and Portfolio Standards:

In December 1996, the Arizona Corporation Commission (Commission) adopted the Retail Electric Competition Rules (A.A.C. R14-2-1601 et seq.). These Rules included the Solar Portfolio Standard (R14-2-1609). In Decision No. 59943, dated December 26, 1996, the Commission established a number of Working Groups to consider modifications and refinements of the Retail Electric Competition Rules. One of the Working Groups, the Unbundled Services and Standard Offer Working Group, established the Solar Portfolio Standard Subcommittee which met from May through September 1997. The Subcommittee's Final Report was published on September 26, 1997.

In the Spring of 1998, Staff incorporated most of the Subcommittee recommendations into proposed rule amendments and those changes were approved by the Commission on August 10 and December 11, 1998.

On February 5, 1999, the Hearing Division of the Arizona Corporation Commission docketed a proposed order to amend the Retail Electric Competition Rules. Included in that proposed order was the recommendation to eliminate the Solar Portfolio Standard (R14-2-1609) in its entirety.

On April 8, 1999, Commissioner Carl Kunasek sent a letter to Commissioners Jim Irvin and Tony West with a proposal to consider a modification of the old Solar Portfolio Standard. The modification would change some wording (old subsection 1609B) from the Solar Portfolio Standard and add new wording (new subsections 1609 M and N) that would broaden the scope of the Portfolio Standard to technologies other than solar electricity. Three possible new names for the Standard would be either "Environmental Portfolio Standard" or "Solar and Environmentally-Friendly Renewable Portfolio Standard" or "Renewable Portfolio Standard."

In the April 8, 1999 letter, it was suggested that questions be developed and that a hearing process be commenced to consider "costs and ratepayer impacts" of such a portfolio as well as other issues. On April 14, 1999, the Commission agreed to move forward with this inquiry. On April 20, 1999, the Commission opened Docket No. E-00000A-99-0205: THE GENERIC INVESTIGATION OF THE DEVELOPMENT OF A RENEWABLE PORTFOLIO STANDARD AS A PORTION OF THE RETAIL ELECTRIC COMPETITION RULES. Staff

has appended, as Attachment A, a modified version (per the April 8, 1999 letter) of the Portfolio Standard on which comments are being solicited.

As part of this docket, the Staff proposes that the following questions be used to outline the issues to be discussed in this docket:

1. In the proposed new Portfolio Standard, new section N allows for "environmentally-friendly renewable electricity technologies" other than solar. Which technologies should be included in this subsection? Would those technologies be available in Arizona or work in Arizona?
2. In subsections A and B of the proposed Portfolio Standard, a schedule of portfolio percentages is defined. Is the size of portfolio percentage and timing of increases still a reasonable strategy to be included in the competition rules? What alternatives would you propose?
3. The proposed Portfolio Standard includes incentives for in-state manufacturing and in-state installation of solar and other environmentally-friendly technologies. Are those incentives appropriate and substantial enough to have a positive impact on Arizona's economy and on Arizona economic development? What alternatives would you propose?
4. What would the impact be on an average residential customer's monthly bill (assume 1,000 kWh/month) of the proposed Portfolio Standard? (Please state assumptions of technology costs).
5. Section 1609 I of the proposed Portfolio Standard allows for the "banking" or sale of excess solar kWh. This could create a credit trading program, similar to the EPA's sulfur dioxide trading program. Do you have any suggestions about creating a credit trading or banking program?
6. Section 1609 F provides for penalties if ESPs fail to meet the Portfolio Standard. Are there additional provisions needed to require ESPs to issue RFPs or negotiate contracts in a timely fashion rather than merely paying the penalty?
7. What should the objectives of a Portfolio Standard be?
8. Is there any other mechanism, other than a Portfolio Standard, that could meet the desired objectives?

The following is Staff's recommended schedule for the proceedings in this docket. Filings would be due in Docket Control at the Corporation Commission by 3 p.m. on the day shown:

<u>Activity</u>	<u>Deadline Date</u>
Procedural Order issued by Hearing Division	May/early June
Submittal of direct testimony	July 16, 1999
Submittal of rebuttal testimony	July 30, 1999
Hearing	August 1999

Please comment on the recommended questions and the proposed schedule. We ask that your comments be filed (with an original and ten copies) in Docket Control, Arizona Corporation Commission, 1200 West Washington, Phoenix, Arizona 85007 by 3:00 p.m. on May 21, 1999. **Note: You are not being asked to answer the suggested questions at this time, but rather to comment on their appropriateness for discussion of a Portfolio Standard.** Staff is recommending to the Hearing Division that any party that files comments concerning these questions and the proposed schedule be added to the Service List for this docket.

Sincerely,



Ray T. Williamson

Acting Director

Utilities Division

RTW:lh

Enclosures

**TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND
ASSOCIATIONS; SECURITIES REGULATION
CHAPTER 2. CORPORATION COMMISSION – FIXED UTILITIES
ARTICLE 16. RETAIL ELECTRIC COMPETITION
(As adopted in Decision No. 61272, December 11, 1998, with proposed
language from the April 8, 1999, Kunasek letter.)**

R14-2-1609. Solar and Environmentally-Friendly Portfolio Standard

A. Starting on January 1, 1999, any Electric Service Provider selling electricity or aggregating customers for the purpose of selling electricity under the provisions of this Article must derive at least .2% of the total retail energy sold competitively from new solar energy resources, whether that solar energy is purchased or generated by the seller. Solar resources include photovoltaic resources and solar thermal resources that generate electricity. New solar resources are those installed on or after January 1, 1997.

B. The portfolio percentage shall increase after December 31, 2000.

1. Starting January 1, 2001, the portfolio percentage shall increase annually and shall be set according to the following schedule:

<u>YEAR</u>	<u>PORTFOLIO PERCENTAGE</u>
2001	.4%
2002	.5%
2003	.6%
2004	.8%
2005-2012	1.0%

2. The Commission would continue the annual increase in the portfolio percentage after December 31, 2002 only if the cost of solar electricity has declined to a Commission-approved cost/benefit point. The Director, Utilities Division shall establish, not later than January 1, 2001, a Solar Electricity Cost Evaluation Working Group to make recommendations to the Commission of an acceptable solar electricity cost/benefit point or solar kWh cost impact cap that the Commission could use as a criteria for the decision to continue the increase in the portfolio percentage. The recommendations of the Working Group shall be presented to the Commission not later than December 31, 2001.

- C. The solar portfolio requirement shall only apply to competitive retail electricity in the years 1999 and 2000 and shall apply to all retail electricity in the years 2001 and thereafter.
- D. Electric Service Providers shall be eligible for a number of extra credit multipliers that may be used to meet the solar portfolio standard requirements:

1. Early Installation Extra Credit Multiplier: For new solar electric systems installed and operating prior to December 31, 2003, Electric Service Providers would qualify for multiple extra credits for kWh produced for 5 years following operational start-up of the solar electric system. The 5-year extra credit would vary depending upon the year in which the system started up, as follows:

YEAR	EXTRA CREDIT MULTIPLIER
1997	.5
1998	.5
1999	.5
2000	.4
2001	.3
2002	.2
2003	.1

The Early Installation Extra Credit Multiplier would end in 2003.

- 2. Solar Economic Development Extra Credit Multipliers: There are 2 equal parts to this multiplier, an in-state installation credit and an in-state content multiplier.
 - a. In-State Power Plant Installation Extra Credit Multiplier: Solar electric power plants installed in Arizona shall receive a .5 extra credit multiplier.
 - b. In-State Manufacturing and Installation Content Extra Credit Multiplier: Solar electric power plants shall receive up to a .5 extra credit multiplier related to the manufacturing and installation content that comes from Arizona. The percentage of Arizona content of the total installed plant cost shall be multiplied by .5 to determine the appropriate extra credit multiplier. So, for instance, if a solar installation included 80% Arizona content, the resulting extra credit multiplier would be .4 (which is .8 X .5).
- 3. Distributed Solar Electric Generator and Solar Incentive Program Extra Credit Multiplier: Any distributed solar electric generator that meets more than one of the eligibility conditions will be limited to only one .5 extra credit multiplier from this subsection. Appropriate meters will be attached to each solar electric generator and read at least once annually to verify solar performance.

- a. Solar electric generators installed at or on the customer premises in Arizona. Eligible customer premises locations will include both grid-connected and remote, non-grid-connected locations. In order for Electric Service Providers to claim an extra credit multiplier, the Electric Service Provider must have contributed at least 10% of the total installed cost or have financed at least 80% of the total installed cost.
 - b. Solar electric generators located in Arizona that are included in any Electric Service Provider's Green Pricing program.
 - c. Solar electric generators located in Arizona that are included in any Electric Service Provider's Net Metering or Net Billing program.
 - d. Solar electric generators located in Arizona that are included in any Electric Service Provider's solar leasing program.
 - e. All Green Pricing, Net Metering, Net Billing, and Solar Leasing programs must have been reviewed and approved by the Director, Utilities Division in order for the Electric Service Provider to accrue extra credit multipliers from this subsection.
4. All multipliers are additive, allowing a maximum combined extra credit multiplier of 2.0 in years 1997-2003, for equipment installed and manufactured in Arizona and either installed at customer premises or participating in approved solar incentive programs. So, if an Electric Service Provider qualifies for a 2.0 extra credit multiplier and it produces 1 solar kWh, the Electric Service Provider would get credit for 3 solar kWh (1 produced plus 2 extra credit).
- E.** Electric Service Providers selling electricity under the provisions of this Article shall provide reports on sales and solar power as required in this Article, clearly demonstrating the output of solar resources, the installation date of solar resources, and the transmission of energy from those solar resources to Arizona consumers. The Commission may conduct necessary monitoring to ensure the accuracy of these data.
- F.** If an Electric Service Provider selling electricity under the provisions of this Article fails to meet the requirement in R14-2-1609(A) or (B) in any year, the Commission shall impose a penalty on that Electric Service Provider that the Electric Service Provider pay an amount equal to 30¢ per kWh to the Solar Electric Fund for deficiencies in the provision of solar electricity. This Solar Electric Fund will be established and utilized to purchase solar electric generators or solar electricity in the following calendar year for the use by public entities in Arizona such as schools, cities, counties, or state agencies. Title to any equipment purchased

by the Solar Electric Fund will be transferred to the public entity. In addition, if the provision of solar energy is consistently deficient, the Commission may void an Electric Service Provider's contracts negotiated under this Article.

1. The Director, Utilities Division shall establish a Solar Electric Fund in 1999 to receive deficiency payments and finance solar electricity projects.
2. The Director, Utilities Division shall select an independent administrator for the selection of projects to be financed by the Solar Electric Fund. A portion of the Solar Electric Fund shall be used for administration of the Fund and a designated portion of the Fund will be set aside for ongoing operation and maintenance of projects financed by the Fund.

G. Photovoltaic or solar thermal electric resources that are located on the consumer's premises shall count toward the solar portfolio standard applicable to the current Electric Service Provider serving that consumer.

H. Any solar electric generators installed by an Affected Utility to meet the solar portfolio standard shall be counted toward meeting renewable resource goals for Affected Utilities established in Decision No. 58643.

I. Any Electric Service Provider or independent solar electric generator that produces or purchases any solar kWh in excess of its annual portfolio requirements may save or bank those excess solar kWh for use or sale in future years. Any eligible solar kWh produced subject to this rule may be sold or traded to any Electric Service Provider that is subject to this rule. Appropriate documentation, subject to Commission review, shall be given to the purchasing entity and shall be referenced in the reports of the Electric Service Provider that is using the purchased kWh to meet its portfolio requirements.

J. Solar portfolio standard requirements shall be calculated on an annual basis, based upon electricity sold during the calendar year.

K. An Electric Service Provider shall be entitled to receive a partial credit against the solar portfolio requirement if the Electric Service Provider or its affiliate owns or makes a significant investment in any solar electric manufacturing plant that is located in Arizona. The credit will be equal to the amount of the nameplate capacity of the solar electric generators produced in Arizona and sold in a calendar year times 2,190 hours (approximating a 25% capacity factor).

1. The credit against the portfolio requirement shall be limited to the following percentages of the total portfolio requirement:

1999	Maximum of 50 % of the portfolio requirement
2000	Maximum of 50 % of the portfolio requirement

2001	Maximum of 25 % of the portfolio requirement
2002	Maximum of 25 % of the portfolio requirement
2003 and on	Maximum of 20 % of the portfolio requirement

2. No extra credit multipliers will be allowed for this credit. In order to avoid double-counting of the same equipment, solar electric generators that are used by other Electric Service Providers to meet their Arizona solar portfolio requirements will not be allowable for credits under this Section for the manufacturer/Electric Service Provider to meet its portfolio requirements.

L. The Director, Utilities Division shall develop appropriate safety, durability, reliability, and performance standards necessary for solar generating equipment to qualify for the solar portfolio standard. Standards requirements will apply only to facilities constructed or acquired after the standards are publicly issued.

M. An Electric Service Provider shall be entitled to meet up to 20% of the portfolio requirement with solar water heating systems purchased by the Electric Service Provider for use by its customers, or purchased by its customers and paid for by the Electric Service Provider through bill credits or other similar mechanisms. The solar water heaters must replace or supplement the use of electric water heaters for residential, commercial, or industrial water heating purposes. For the purposes of this rule, solar water heaters will be credited with 1 kWh of electricity produced for each 3,415 British Thermal Units of heat produced by the solar water heater. Solar water heating systems shall be eligible for Early Installation Extra Credit Multipliers as defined in R14-2-1609 D.1 and Solar Economic Development Extra Credit Multipliers as defined in R14-2-1609 D.2.

N. An Electric Service Provider shall be entitled to meet up to 10% of the portfolio requirement with electricity produced by environmentally-friendly renewable electricity technologies approved by the Commission after a hearing. Systems using such technologies shall be eligible for Early Installation Extra Credit Multipliers as defined in R14-2-1609 D.1 and Solar Economic Development Extra Credit Multipliers as defined in R14-2-1609 D.2.