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ORIGINAL OPEN MEETING

MEMORANDUM

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Arizona Corporation Commission

2000 JUL 21 P 2:44

TO: THE COMMISSION

DOCKETED

AZ CORP COMMISSION
DOCUMENT CONTROL

FROM: Utilities Division

JUL 21 2000

DATE: July 14, 2000

DOCKETED BY

RE: NOTICE OF PROPOSED RULEMAKING FOR THE ENVIRONMENTAL PORTFOLIO STANDARD (DOCKET NO. RE-00000C-00-0377)

Staff is proposing the addition of a new section to the Retail Electric Competition Rules (A.A.C. R14-2-1601 et seq.) entitled the Environmental Portfolio Standard, to be numbered as A.A.C. R14-2-1618.

On April 20, 1999, the Staff opened Docket No. E-0000A-99-0205, "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." Testimony was filed, hearings were held, and the result was the approval, on May 4, 2000, of a proposed Environmental Portfolio Standard, that would become a part of the Retail Electric Competition Rules. The Commission ordered Staff to commence a rule making to adopt the proposed rules (Decision No. 62506, dated May 4, 2000).

Staff recommends that the Commission direct the Hearing Division to issue a Procedural Order setting public comment period on the proposed rules and setting the dates for public comment hearing in Phoenix. Staff requests that the public comment hearing be held at 10 a.m. on October 19, 2000, in the hearing room of the Commission office in Phoenix.

Although comments in this matter may be taken through October 19, 2000, Staff requests that companies or other interested persons file written comments on or before October 3, 2000. Further, Staff requests that companies or other persons (including the Utilities Division) file written comments on or before October 13, 2000, in response to those comments filed on or before October 3, 2000.

Staff recommends that the proposed rules be forwarded to the Secretary of State for Notice of Proposed Rulemaking.

Deborah R. Scott
Director
Utilities Division

DRS:RTW:jbc\JMA

ORIGINATOR: Ray Williamson

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 CARL J. KUNASEK
Chairman

3 JIM IRVIN
Commissioner

4 WILLIAM A. MUNDELL
Commissioner

5

6 IN THE MATTER OF NOTICE OF PROPOSED)
RULEMAKING FOR THE ENVIRONMENTAL)
7 PORTFOLIO STANDARD)

DOCKET NO. RE-00000C-00-0377

DECISION NO. _____

8

ORDER

9

10 Open Meeting
August 1 and 2, 2000
11 Phoenix, Arizona

12 BY THE COMMISSION:

13

FINDINGS OF FACT

14

1. Staff is proposing the addition of a new section to the Retail Electric Competition Rules (A.A.C. R14-2-1601 et seq.) entitled the Environmental Portfolio Standard, to be numbered as A.A.C. R14-2-1618.

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AGENCY RECEIPT

NOTICE OF PROPOSED RULEMAKING

1. Agency name: Arizona Corporation Commission
2. The Subchapters, if applicable; the Articles; the Parts, if applicable; and the Sections involved in the rulemaking, listed in alphabetical and numerical order:

<u>Subchapters, Articles, Parts, and Sections</u>	<u>Action</u>
Article 16. Retail Electric Competition	
R14-2-1601	Amend.
R14-2-1618	New Section.

AGENCY CERTIFICATE

- 1. **Agency name:** Arizona Corporation Commission
- 2. **Chapter heading:** Corporation Commission – Fixed Utilities
- 3. **Code citation for the Chapter:** 14 A.C.C. 2
- 4. **The Subchapters, if applicable; the Articles; the Parts, if applicable; and the Sections involved in the rulemaking, listed in alphabetical and numerical order:**

<u>Subchapters, Articles, Parts, and Sections</u>	<u>Action:</u>
Article 16. Retail Electric Competition	
R14-2-1601	Amend.
R14-2-1618	New Section.

- 5. **The rules contained in this package are true and correct as (proposed, adopted, etc.).**

6. _____

Signature of Agency Chief Executive Officer	Date of signing
_____	_____
Brian C. McNeil	Executive Secretary
Printed or typed name of signer	Title of signer

- 7. **Statement in Conformance with R1-1-105(E).**

Rules are exempt from both Council and Attorney General approval by court order, *State of Arizona ex rel. Corbin v. Arizona Corporation Commission*, 174 Ariz. 216, 848 P.2d 301 (App. 1992), *See also:* Ariz. Const. Art. XV, sec. 3 and A.R.S. §§ 40-202, 40-203, 40-321, 40-441 and 40-422 et seq.. The rules in this matter are ratemaking rules and exempt from the Attorney General certification provisions of the Arizona Administrative Procedure Act.

5. **An explanation of the rule, including the agency's reasons for initiating the rule:**

On April 8, 1999, Commissioner Kunasek filed a proposed new rule "Solar and Environmentally -- Friendly Portfolio Standard" to replace the former Solar Portfolio rule. The proposed rule expanded the portfolio standard to include technologies other than solar electricity generation and in order to produce any significant results, a combination of a mandatory portfolio combined with existing voluntary efforts was required.

6. **A reference to any study that the agency proposes to rely on in its evaluation of or justification for the proposed rule and where the public may obtain or review the study, all data underlying each study, any analysis of the study and other supporting material:**

The Commission Staff presented two studies at the hearing in this matter. These items are both available at Docket Control, Arizona Corporation Commission, 1200 W. Washington, Phoenix, AZ 85007.

1. Direct Testimony of Thomas E. Hoff, Clean Power Research, July 30, 1999, filed at the Arizona Corporation Commission, (Docket # E-00000A-99-0205), Schedule THE-2.
2. Direct Testimony of Marshall R. Goldberg, MRG & Associates, July 30, 1999, filed at the Arizona Corporation Commission, (Docket # E-00000A-99-0205), Exhibit MRG-2.

All data, analysis and supporting materials pertaining to these studies are contained in the file with the studies.

7. **A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**

The rule does not diminish any previous grant of authority of a political subdivision.

8. **The preliminary summary of the economic, small business, and consumer impact:**

The public at large would benefit from an environmental portfolio standard that encourages a larger portion of the electricity sold in Arizona to be produced from environmentally friendly sources. Producing electricity from environmentally friendly sources has fewer adverse impacts on air, land, and water than producing electricity from conventional sources.

The cost to consumers of electric service would be \$0.000875 per kilowatt-hour of retail electricity purchased by the consumer with caps of \$0.35 per month for residential customers, \$13.00 per meter per month for nonresidential consumers whose demand is less than 3,000 kilowatts per month, and \$39.00 per meter per month for nonresidential consumers whose demand is 3,000 kilowatts or more per month.

Manufacturers and installers of environmentally friendly electric power plants in Arizona would benefit because the proposed rule provides incentives (extra credit multipliers) for environmentally friendly power plants installed or manufactured in Arizona. Employees of those firms would be expected to have increased job opportunities. Manufacturers and distributors of solar water heaters would benefit because load-serving entities could meet a portion of their portfolio requirement through the installation of solar water heating and solar air conditioning systems. Employees of those firms would be expected to have increased job opportunities.

Public entities, such as schools, cities, counties, or state agencies, may benefit from the establishment of the Solar Electric Fund, because the fund would be used to purchase solar electric generators or solar electricity for those entities. Adoption of the proposed permanent rule and rule amendments would increase the portion of electricity sold in Arizona that is produced from environmentally friendly sources.

9. **The name and address of agency personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:**

Name: Ray T. Williamson, Chief, Economics & Research
Address: Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
Telephone: (602) 542-0828
Facsimile number: (602) 364-2270

10. **The time, place, and nature of the proceedings for the adoption, amendment, or repeal of the rule or, if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:**

Date: October 19, 2000
Time: 10:00 a.m.
Location: Commission Hearing Room, 1200 West Washington Street, Phoenix, Arizona
Nature: Public Comment Hearing

11. **Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:**

The proposed rule includes a maximum surcharge for all electric consumers to support environmentally

friendly resources through 2012. The Commission has the constitutional and statutory authority to set just and reasonable rates in a competitive environment. The Commission determined that the proposed rule is just and reasonable and in the best interest of the public.

12. **Incorporations by reference and their location in the rules:**

None

13. **The full text of the rules follows:**

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS;

SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION – FIXED UTILITIES

ARTICLE 16. RETAIL ELECTRIC COMPETITION

Article 16. Retail Electric Competition

R14-2-1601. Definitions

1. No change.
2. No change.
3. No change.
4. No change.
5. No change.
6. No change.
7. No change.
8. No change.
9. No change.
10. No change.
11. No change.
12. No change.
13. No change.
14. No change.
15. No change.
16. No change.
17. No change.
18. No change.
19. “Green Pricing” means a program offered by an Electric Service Provider where customers elect to pay a rate premium for ~~electricity generated by renewable sources~~ renewable-generated electricity.
20. No change.
21. No change.
22. No change.
23. No change.

24. No change.
25. No change.
26. No change.
27. No change.
28. No change.
29. “Net Metering” or “Net Billing” is a method by which customers can use electricity from customer-sited solar electric generators to offset electricity purchased from an Electric Service Provider. The customer only pays for the “Net” electricity purchased.
- 29.30. “Noncompetitive Services” means Distribution Service, Standard Offer Service, transmission, and any ancillary services deemed to be non-competitive by the Federal Energy Regulatory Commission, Must-Run Generating Units services, provision of customer demand and energy data by an Affected Utility or Utility Distribution Company to Electric Service Providers, and those aspects of Metering Service set forth in R14-2-1612(K).
- 30.31. “OASIS” is Open Access Same-Time Information System, which is an electronic bulletin board where transmission-related information is posted for all interested parties to access via the Internet to enable parties to engage in transmission transactions.
- 31.32. “Operating Reserve” means the generation capability above firm system demand used to provide for regulation, load forecasting error, equipment forced and scheduled outages, and local area protection to provide system reliability.
- 32.33. “Potential Transformer (PT)/Voltage Transformer (VT)” is an electrical device used to step down primary voltages to 120V for metering purposes.
- 33.34. “Provider of Last Resort” means a provider of Standard Offer Service to customers within the provider’s certificated area whose annual usage is 100,000 kWh or less and who are not buying Competitive Services.
- 34.35. “Public Power Entity” incorporated by reference the definition set forth in A.R.S. § 30-801.16.
- 35.36. “Retail Electric Customer” means the person or entity in whose name service is rendered.
- 36.37. “Scheduling Coordinator” means an entity that provides schedules for power transactions over transmission or distribution systems to the party responsible for the operation and control of the transmission grid, such as a Control Area Operator, Arizona Independent Scheduling Administrator, or Independent System Operator.
- 37.38. “Self-Aggregation” is the action of a retail electric customer that combines its own metered loads

into a single purchase block.

39. “Solar Electric Fund” is the funding mechanism established by this Article through which deficiency payments are collected and solar energy projects are funded in accordance with this Article.
- ~~38.40.~~ “Standard Offer Service” means Bundled Service offered by the Affected Utility or Utility Distribution Company to all consumers in the Affected Utility’s or Utility Distribution Company’s service territory at regulated rates including metering, meter reading, billing and collection services, demand side management services including but not limited to time-of-use, and consumer information services. All components of Standard Offer Service shall be deemed noncompetitive as long as those components are provided in a bundled transaction pursuant to R14-2-1606(A).
- ~~39.41~~ “Stranded Cost” includes:
- a. The verifiable net difference between:
 - i. The net original cost of all the prudent jurisdictional assets and obligations necessary to furnish electricity (such as generating plans, purchased power contracts, fuel contracts, and regulatory assets), acquired or entered into prior to December 26, 1996, under traditional regulation of Affected Utilities; and
 - ii. The market value of those assets and obligations directly attributable to the introduction of competition under this Article;
 - b. Reasonable costs necessarily incurred by an Affected Utility to effectuate divestiture of its generation assets;
 - c. Reasonable employee severance and retraining costs necessitated by electric competition, where not otherwise provided; and
 - d. Other transition and restructuring costs as approved by the Commission as part of the Affected Utility’s Stranded Cost determination pursuant to R14-2-1607.
- ~~40.42.~~ “System Benefits” means Commission-approved utility low income, demand side management, Consumer Education, environmental, renewables, long-term public benefit research and development, and nuclear fuel disposal and nuclear power plant decommissioning programs, and other programs that may be approved by the Commission from time to time.
- ~~41.43.~~ “Transmission Primary Voltage” is voltage above 25 kV as it relates to metering transformers.
- ~~42.44.~~ “Transmission Service” refers to the transmission of electricity to retail electric customers or to

electric distribution facilities and that is so classified by the Federal Energy Regulatory Commission or, to the extent permitted by law, so classified by the Arizona Corporation Commission.

43.45. "Unbundled Service" means electric service elements provided and priced separately, including, but not limited to, such service elements as generation, transmission, distribution, Must Run Generation, metering meter reading, billing and collection, and ancillary services. Unbundled Service may be sold to consumers or to other Electric Service Providers.

44.46. "Universal Node Identifier" is a unique, permanent, identification number assigned to each service delivery point.

45.47. "Utility Distribution Company" (UDC) means the electric utility entity regulated by the Commission that operates, constructs, and maintains the distribution system for the delivery of power to the end user point of delivery on the distribution system.

46.48. "Utility Industry Group" (UIG) refers to a utility industry association that establishes national standards for data formats.

R14-2-1618. Environmental Portfolio Standard

A. Starting on January 1, 2001, 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 from new solar resources or environmentally-friendly renewable electricity technologies, whether that energy is purchased or generated by the seller. Solar resources include photovoltaic resources and solar thermal resources that generate electricity. New solar resources and environmentally-friendly renewable electricity technologies are those installed on or after January 1, 1997.

1. Competitive ESPs, that are not UDCs, are exempt from portfolio requirements until 2004, but could voluntarily elect to participate. ESPs choosing to participate would receive a pro rata share of funds collected for portfolio purposes to acquire eligible portfolio systems or electricity generated from such systems.

2. Utility Distribution Companies would recover part of the costs of the portfolio standard through current System Benefits Charges, if they exist, including a re-allocation of demand side management funding to portfolio uses. Additional portfolio standard costs will be recovered by a customer Environmental Portfolio Surcharge on the customers' monthly bill. The Environmental Portfolio Surcharge shall be \$.000875 per kWh of retail electricity purchased by the customer. There shall be a surcharge cap of \$.35 per month for residential customers. There

shall be a surcharge cap of \$13 per month per meter or per service if no meter is used for all non-residential customers, except for those non-residential customers whose meter's registered demand is 3000 kW or more for 3 consecutive months, who will be subject to a surcharge cap of \$39.00 per month per meter.

3. Customer bills shall reflect a line item entitled "Environmental Portfolio Surcharge, mandated by the Corporation Commission."
4. Utility Distribution Companies or ESPs that do not currently have a renewables program may request a waiver or modification of this section due to extreme circumstances that may exist.

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:

YEAR	PORTFOLIO PERCENTAGE
2001	.2%
2002	.4%
2003	.6%
2004	.8%
2005	1.0%
2006	1.05%
2007-2012	1.1%

2. The Commission would continue the annual increase in the portfolio percentage after December 31, 2004 only if the cost of environmental portfolio electricity has declined to a Commission-approved cost/benefit point. The Director, Utilities Division shall establish, not later than January 1, 2003, an Environmental Portfolio Cost Evaluation Working Group to make recommendations to the Commission of an acceptable portfolio electricity cost/benefit point or portfolio kWh cost impact maximum 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, 2003. In no event, however, shall the Commission increase the surcharge caps as delineated in R14-2-1618.A.2 above.
3. The requirements for the phase-in of various technologies shall be:
 - a. In 2001, the Portfolio kWh makeup shall be at least 50 percent solar electric, and no

more than 50 percent other environmentally-friendly renewable electricity technologies or solar hot water or R&D on solar electric resources, but with no more than 10 percent on R&D.

- b. In 2002, the Portfolio kWh makeup shall be at least 50 percent solar electric, and no more than 50 percent other environmentally-friendly renewable electricity technologies or solar hot water or R&D on solar electric resources, but with no more than 5 percent on R&D.
- c. In 2003, the Portfolio kWh makeup shall be at least 50 percent solar electric, and no more than 50 percent other environmentally-friendly renewable electricity technologies or solar hot water or R&D on solar electric resources, but with no more than 5 percent on R&D.
- d. In 2004, through 2012, the portfolio kWh makeup shall be at least 60 percent solar electric with no more than 40 percent solar hot water or other environmentally-friendly renewable electricity technologies.

C. The portfolio requirement 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 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 $.8 \times .5$).
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 requirements of this rule as modified by the Commission after consideration of the recommendations of the Environmental Portfolio Cost Evaluation Working Group, the Commission shall impose a penalty, beginning January 1, 2004, 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 penalty, which is in lieu of any other monetary penalty which may be imposed by the Commission, may not be imposed for any calendar year prior to 2004. 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 2004 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. Environmental 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 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:

2001	Maximum of 50 % 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 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 and environmentally-friendly renewable electricity technologies and to qualify for the 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 or solar air conditioning 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 and solar air conditioners shall be credited with kWhs equivalent to those needed to produce a comparable cooling load reduction. Solar water heating systems and solar air conditioning systems shall be eligible for Early Installation Extra Credit Multipliers as defined in R14-2-1618 D.1 and Solar Economic Development Extra Credit Multipliers as defined in R14-2-1618 D.2.b.

- N. An Electric Service Provider shall be entitled to meet the portfolio requirement with electricity produced in Arizona by environmentally-friendly renewable electricity technologies that are defined as in-state landfill gas generators, wind generators, and biomass generators, consistent with the phase-in schedule in R14-2-1618 B.3. Systems using such technologies shall be eligible for Early Installation Extra Credit Multipliers as defined in R14-2-1618 D.1 and Solar Economic Development Extra Credit Multipliers as defined in R14-2-1618 D.2.b.

**Environmental Portfolio Standard
Economic, Small Business and Consumer Impact Statement**

A. Economic, small business and consumer impact summary.

1. Proposed rulemaking.

The proposed permanent rule R14-2-1618 and amendments to R14-2-1601 provide for the introduction of an environmental portfolio standard to increase the portion of electricity sold in Arizona that is produced from environmentally friendly sources.

2. Brief summary of the economic impact statement.

The public at large would benefit from an environmental portfolio standard that encourages a larger portion of the electricity sold in Arizona to be produced from environmentally friendly sources. Producing electricity from environmentally friendly sources has fewer adverse impacts on air, land, and water than producing electricity from conventional sources.

The cost to consumers of electric service would be \$0.000875 per kilowatt-hour of retail electricity purchased by the consumer with caps of \$0.35 per month for residential customers, \$13.00 per meter per month for nonresidential consumers whose demand is less than 3,000 kilowatts per month, and \$39.00 per meter per month for nonresidential consumers whose demand is 3,000 kilowatts or more per month.

Manufacturers and installers of environmentally friendly electric power plants in Arizona would benefit because the proposed rule provides incentives (extra credit multipliers) for environmentally friendly power plants installed or manufactured in Arizona. Employees of those firms would be expected to have increased job opportunities.

Manufacturers and distributors of solar water heaters would benefit because load-serving entities could meet a portion of their portfolio requirement through the installation of solar water heating and solar air conditioning systems. Employees of those firms would be expected to have increased job opportunities.

A cost to load-serving entities would be the cost of complying with the reporting requirements. Another cost may be a penalty of \$0.30 per kilowatt-hour paid to a Solar Electric Fund for deficiencies in meeting the requirements of the portfolio standard. However, the penalty would not be effective until 2004, and it could be avoided entirely by simply meeting the portfolio requirements.

Public entities, such as schools, cities, counties, or state agencies, may benefit from the establishment of the Solar Electric Fund, because the fund would be used to purchase solar electric generators or solar electricity for those entities.

Probable costs to the Commission of the proposed rule and rule amendments would include costs associated with reviewing reports, establishing an Environmental Portfolio Cost Evaluation Working Group, establishing a Solar Electric Fund, and developing standards for environmentally friendly electric technologies.

Adoption of the proposed permanent rule and rule amendments would increase the portion of electricity sold in Arizona that is produced from environmentally friendly sources.

3. Name and address of agency employees to contact regarding this statement.

Ray T. Williamson, Acting Chief, Economics and Research Section, or Lyn Farmer, Chief Counsel at the Arizona Corporation Commission, 1200 West Washington, Phoenix, Arizona 85007.

B. Economic, small business and consumer impact statement.

1. Proposed rulemaking.

The proposed permanent rule R14-2-1618 and amendments to R14-2-1601 provide for the introduction of an environmental portfolio standard to increase the portion of electricity sold in Arizona that is produced from environmentally friendly sources.

2. Persons who will be directly affected by, bear the costs of, or directly benefit from the proposed rulemaking.

- a. the public at large
- b. consumers of electric service in Arizona
- c. potential and current electric service providers
- d. electric utilities
- e. investors in investor-owned utilities
- f. holders of bonds of cooperative utilities
- g. Arizona Corporation Commission
- h. manufacturers and installers of environmentally friendly electric power plants in Arizona
- i. manufacturers and distributors of solar water heaters and solar air conditioning systems
- j. employees of manufacturers of environmentally friendly electric power plants in Arizona
- k. employees of manufacturers and distributors of solar water heaters and solar air

- conditioning systems
1. public entities, such as schools, cities, counties, or state agencies.

3. **Cost-benefit analysis.**

- a. **Probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the proposed rulemaking.**

Probable costs to the Commission of the proposed rule and rule amendments would include the costs associated with reviewing reports, establishing an Environmental Portfolio Cost Evaluation Working Group, establishing a Solar Electric Fund, and developing standards for environmentally friendly electricity technologies. These costs can be absorbed in existing budgets, and the functions can be performed by existing staff.

- b. **Probable costs and benefits to a political subdivision of this state directly affected by the implementation and enforcement of the proposed rulemaking.**

Political subdivisions may benefit from the establishment of the Solar Electric Fund, because the fund would be used to purchase solar electric generators or solar electricity for those entities.

In addition, local governments may benefit from increased property tax revenues resulting from environmentally friendly power plants being installed in Arizona.

- c. **Probable costs and benefits to businesses directly affected by the proposed rulemaking, including any anticipated effect on the revenues or payroll expenditure of employers who are subject to the proposed rulemaking.**

A cost to load-serving entities would be the cost of complying with the reporting requirements. Another cost may be a penalty of \$0.30 per kilowatt-hour paid to a Solar Electric Fund for deficiencies in meeting the requirements of the portfolio standard. The effect on the revenues or payroll expenditures of load-serving entities would likely be minimal.

4. **Probable impact on private and public employment in businesses, agencies and political subdivisions of this state directly affected by the proposed rulemaking.**

Manufacturers and installers of environmentally friendly electric power plants in Arizona may hire additional employees. Manufacturers and distributors of

solar water heaters may also hire additional employees. The impact on public employment would likely be minimal.

5. Probable impact of the proposed rulemaking on small businesses.

a. Identification of the small businesses subject to the proposed rulemaking.

Businesses subject to the proposed rulemaking are load-serving entities. Some of these businesses are small, but some are also large regional, national, or international firms.

b. Administrative and other costs required for compliance with the proposed rulemaking.

A cost to small load-serving entities would be the cost of complying with the reporting requirements. Another cost may be a penalty of \$0.30 per kilowatt-hour paid to a Solar Electric Fund for deficiencies in meeting the requirements of the portfolio standard. However, the penalty could be avoided by meeting the portfolio requirement.

c. A description of the methods that the agency may use to reduce the impact on small businesses.

One method of reducing the impact on the small load-serving entities would be to educate them on the requirements of the portfolio standard and the reporting requirements.

d. Probable cost and benefit to private persons and consumers who are directly affected by the proposed rulemaking.

The public at large would benefit from an environmental portfolio standard that encourages a larger portion of the electricity sold in Arizona to be produced from environmentally friendly sources. Producing electricity from environmentally friendly sources has fewer adverse impacts on air and water than producing electricity from conventional sources.

The cost to consumers of electric service would be \$0.000875 per kilowatt-hour of retail electricity purchased by the consumer with caps of \$0.35 per month for residential customers, \$13.00 per meter per month for nonresidential consumers whose demand is less than 3,000 kilowatts per month, and \$39.00 per meter per month for nonresidential consumers whose demand is 3,000 kilowatts or more per month.

6. Probable effect on state revenues.

There may be a slight increase in state revenues resulting from increased sales taxes on the customer surcharge. There may also be increased income taxes resulting from an increase in Arizona manufacturing of environmentally friendly technologies.

7. Less intrusive or less costly alternative methods of achieving the purpose of the proposed rulemaking.

The Commission is unaware of any less intrusive or less costly methods that exist for achieving the purpose of the proposed rulemaking.

8. If for any reason adequate data are not reasonably available to comply with the requirements of subsection B of this section, the agency shall explain the limitations of the data and the methods that were employed in the attempt to obtain the data and shall characterize the probable impacts in qualitative terms.

The Commission commenced a public comment hearing and an evidentiary hearing regarding the portfolio standard on September 16, 1999. Participants included government agencies, consumers, consumer advocates, current and potential load-serving entities, power producers, environmental advocates, manufacturers of environmentally friendly technologies, and Commission Staff.

Cost and benefit information on environmentally friendly technologies was provided through the evidentiary hearing from the Sacramento Municipal Utility District, the Land and Water Fund of the Rockies, the National Renewable Energy Laboratory, the American Wind Energy Association, Salt River Project, Strategies Unlimited, Science Applications International Corporation, York Research, the Arizona Solar Energy Industries Association, and Bechtel Corporation.

The various studies produced a range of values of the costs to produce environmentally friendly electricity. The Commission set caps on consumer costs to insure that the negative impact of the rulemaking would be small. All other impacts of the proposed rulemaking are expressed in qualitative terms.