ORIGINAL

OPEN MEETING ITEM

0000088991

COMMISSIONERS
MIKE GLEASON - Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

ARIZONA CORPORATION COMMISSION

BRIAN C. McNEIL
Executive Director

Arizona Corporation Commission
DOCKETED
SEP 29 2008
DOCKETED BY

DATE: SEPTEMBER 29, 2008

DOCKET NO: RE-00000A-07-0608

TO ALL PARTIES:

Enclosed please find the recommendation of Administrative Law Judge Teena Wolfe. The recommendation has been filed in the form of an Opinion and Order on:

NET METERING
(RULEMAKING)

Pursuant to A.A.C. R14-3-110(B), you may file exceptions to the recommendation of the Administrative Law Judge by filing an original and ten (10) copies of the exceptions with the Commission's Docket Control at the address listed below by **4:00** p.m. on or before:

OCTOBER 8, 2008

The enclosed is NOT an order of the Commission, but a recommendation of the Administrative Law Judge to the Commissioners. Consideration of this matter has tentatively been scheduled for the Commission's Working Session and Open Meeting to be held on:

OCTOBER 15, 2008 AND OCTOBER 16, 2008

For more information, you may contact Docket Control at (602) 542-3477 or the Hearing Division at (602) 542-4250. For information about the Open Meeting, contact the Executive Director's Office at (602) 542-3931.

BRIAN C. McNEIL
EXECUTIVE DIRECTOR

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MIKE GLEASON - Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE PROPOSED RULEMAKING REGARDING NET METERING.	DOCKET NO. RE-00000A-07-0608 DECISION NO. _____ **OPINION AND ORDER**

DATE OF HEARING:	June 5, 2008 (Public Comments)
PLACE OF HEARING:	Phoenix, Arizona
ADMINISTRATIVE LAW JUDGE:	Teena Wolfe
IN ATTENDANCE:	Mike Gleason, Chairman William A. Mundell, Commissioner Kristin K. Mayes, Commissioner
APPEARANCES:	Mr. Robert Metli, SNELL & WILMER, LLP, on behalf of Arizona Public Service Company; Mr. Thomas D. Alston, on behalf of Solar Alliance; Mr. Kevin T. Fox, KEYS & FOX, LLP, on behalf of Interstate Renewable Energy Council; Mr. Daniel Musgrove, on behalf of the Distributed Energy Association of Arizona; and Mr. Kevin Torrey, Staff Attorney, Legal Division, on behalf of the Utilities Division of the Arizona Corporation Commission.

BY THE COMMISSION:

On April 7, 2005, the Arizona Corporation Commission ("Commission") issued Decision No. 67744, which directed the Commission's Utilities Division ("Staff") to schedule workshops to consider distributed generation interconnection and net metering.

On August 28, 2007, the Commission issued Decision No. 69877. In Decision No. 69877 the Commission adopted the Public Utility Regulatory Policies Act of 1978 ("PURPA") standard on net metering.

On October 19, 2007, the Commission, at the request of Staff, opened this rulemaking docket.

On December 17, 2007, Staff filed a Staff Report in this docket.

On March 20, 2008, the Commission issued Decision No. 70194 in this docket. Decision No. 70194 ordered Staff to prepare a Notice of Proposed Rulemaking to adopt Net Metering Rules, A.A.C. R14-2-2301 through R14-2-2308 ("Proposed Net Metering Rules") and forward it to the Arizona Secretary of State for publication in the *Arizona Administrative Register*. Decision No. 70194 further ordered the Commission's Hearing Division to schedule a public comment proceeding on the proposed rulemaking to be held no earlier than 30 days after publication in the *Arizona Administrative Register*, but as soon as practicable thereafter.

A public comment hearing was held as scheduled on June 5, 2008. Staff appeared through counsel, and comments were provided by members of the public and interested parties. Written comments received on the Proposed Net Metering Rules prior to the public comment hearing are summarized and addressed in a Summary of Comments and Response, which was prepared in accordance with A.R.S. § 41-1001(14)(b)(iii), and which will be included in the Preamble published with the Notice of Final Rulemaking in the Arizona Administrative Register. The Summary of Comments and Response is attached hereto as Appendix B, and is incorporated in this Decision.

* * * * * * * * * *

Having considered the entire record herein and being fully advised in the premises, the Commission finds, concludes, and orders that:

FINDINGS OF FACT

1. On April 7, 2005, the Commission issued Decision No. 67744, which directed Staff to schedule workshops to consider distributed generation interconnection and net metering.

2. A workshop on net metering was held on September 7, 2006. Participants in the workshop included representatives from utilities, government agencies, environmental advocacy groups, consumers, advocates for renewable resources, advocates for distributed generation, and renewable resource providers.

3. As part of the workshop process, Staff received written comments from parties interested in net metering issues.

4. Decision No. 69877 (August 28, 2007) adopted the PURPA standard on net metering to apply to all electric distribution companies in Arizona regulated by the Commission.

5. Decision No. 69877 ordered Staff to begin a rulemaking process to draft rules on net metering, and directed that the draft rules address, at a minimum, the following issues: customer sector participation, types of generation resources, project size, total participation, metering, treatment of net excess generation, and responsibility for costs.

6. On October 19, 2007, Staff requested that this rulemaking docket on net metering be opened.

7. On December 17, 2007, Staff filed a Staff Report that requested written comments from interested parties on Staff's draft proposed Net Metering Rules.

8. Between December 31, 2007 and January 24, 2008, thirteen sets of written comments were filed on Staff's December 17, 2007 draft proposed Net Metering Rules. The comments were filed by Victor J. Ong; Western Resource Advocates; SolarForRent; Sierra Club (Grand Canyon Chapter); citizenrē; City of Tucson; Solar Advocates, The Arizona Solar Energy Industries Association, The Solar Alliance, and Vote Solar Initiative; Jon D. Findley; The Interstate Renewable Energy Council ("IREC"); Arizona Public Service Company ("APS"); Tucson Electric Power Company and UNS Electric, Inc. ("TEP" and "UNSE"); The Grand Canyon State Electric Cooperative Association ("GCSECA"); and Ronald Hutcheson.

9. On February 1, 2008, Staff filed its revised draft proposed Net Metering Rules. Staff's filing encouraged all interested parties to provide written comments on its revised draft proposed Net Metering Rules.

10. Between February 12, 2008, and February 14, 2008, five sets of written comments were filed on Staff's revised draft proposed Net Metering Rules. Those comments were filed by GCSECA, Deluge, Inc., the Interstate Renewable Energy Council, TEP and UNSE, and Solar Advocates.

11. On February 25, 2008, Staff filed a Recommended Order for the Commission's consideration, with proposed Net Metering Rules. Staff's proposed Net Metering Rules incorporated comments from interested parties. Staff recommended that the proposed rules forwarded to the

Arizona Secretary of State for Notice of Proposed Rulemaking.

12. On March 6, 2008, written comments on the Proposed Net Metering Rules were filed by Duncan Valley Electric Cooperative, Inc., Graham County Electric Cooperative, Inc., Mohave Electric Cooperative, Inc., Navopache Electric Cooperative, Inc., Trico Electric Cooperative, Inc., and Sulphur Springs Valley Electric Cooperative, Inc. (collectively, the "Electric Cooperatives"); The Arizona Solar Energy Industries Association and The Solar Alliance ("Solar Advocates"); APS; and TEP and UNSE.

13. The Recommended Order filed by Staff was considered at the Commission's Open Meeting on March 11, 2008, and on March 20, 2008, the Commission issued Decision No. 70194. Decision No. 70194 ordered Staff to prepare a Notice of Proposed Rulemaking to adopt Net Metering Rules, A.A.C. R14-2-2301 through R14-2-2308 ("Proposed Net Metering Rules") and forward it to the Arizona Secretary of State for publication in the *Arizona Administrative Register*. Decision No. 70194 further ordered the scheduling of a public comment proceeding on the Proposed Rulemaking to be held no earlier than 30 days after publication in the *Arizona Administrative Register*, but as soon as practicable thereafter.

14. On March 28, 2008, a Procedural Order was issued setting an oral proceeding for June 5, 2008, to obtain public comments on the Proposed Net Metering Rules, and directing Staff to cause a Notice of Proposed Rulemaking to be published in the *Arizona Administrative Register* no later than April 18, 2008, to inform the public that written comments on the Notice of Proposed Rulemaking would be accepted through June 5, 2008; that written comments on the Notice of Proposed Rulemaking should include a reference to Docket No. RE-00000A-07-0608 and should be submitted to the Commission's Docket Control; and that although written comments would be accepted through June 5, 2008, the Commission requested that interested persons file initial written comments on the proposed rules on or before May 19, 2008, and file any written comments in response to other interested persons' comments on or before May 27, 2008. The Procedural Order further directed Staff to ensure that any written comments submitted to the Utilities Division rather than the Commission's Docket Control be promptly filed with Docket Control; and directed Staff to file, on or before June 2, 2008, Staff's written comments, including any additional recommendations, in

response to any comments filed by interested persons.

15. On May 19, 2008, written comments on the Proposed Net Metering Rules were filed by APS, IREC, and Solar Advocates.

16. On May 20, 2008, the Electric Cooperatives filed written comments on the Proposed Net Metering Rules.

17. On May 27, 2008, IREC and APS filed Reply Comments.

18. On May 27 and 28, 2008, the Distributed Energy Association of Arizona ("DEAA") filed Reply Comments.

19. On May 29, 2008, Solar Advocates filed Reply Comments.

20. On May 30, 2008, Staff filed a copy of the Notice of Rulemaking Docket Opening and Notice of Proposed Rulemaking that it submitted to the Arizona Office of Secretary of State and was published by that office in the April 28, 2008, issue of the *Arizona Administrative Register*.

21. On June 2, 2008, Staff filed its Staff Report regarding comments made by interested parties on the Proposed Net Metering Rules.

22. On June 5, 2008, the Commission held a proceeding to obtain public comments on the Proposed Net Metering Rules, as scheduled. Staff, APS, The Solar Alliance, IREC, and the DEAA appeared and provided public comment on the Proposed Net Metering Rules.

23. On July 7, 2008, Arizona Solar Energy Association filed a clarification to public comment made by one of its members at the June 5, 2008, oral proceeding.

24. On July 8, 2008, APS filed responses to specific questions that Commissioners raised at the June 5, 2008, proceeding. APS stated in the July 8, 2008, filing that it will not propose a total utility capacity limit in its initial Net Metering Tariff filing, and will not seek to recover in such tariff any specific additional costs at this time. The July 8, 2008, filing further stated that pursuant to Decision No. 69663 (June 28, 2007), APS is continuing to study the actual costs and benefits of renewable distributed generation on the system.

25. On July 14, 2008, IREC filed written comments responding to Staff's June 2, 2008, filing.

. . .

26. On September 12, 2008, a letter from Pima County Facilities Management to TEP was docketed.

27. A summary of the comments that the Commission received on specific sections of the Proposed Net Metering Rules, including both technical and legal issues, and the Commission's analysis and resolution of those comments are included in the Summary of Comments and Response, which is attached hereto as Appendix B and incorporated herein by reference. Appendix B was prepared in accordance with A.R.S. § 41-1001(14)(d)(iii), and is to be included in the Preamble to be published with the Notice of Final Rulemaking.

28. Typographical errors appearing in the text of the Proposed Net Metering Rules in the Notice of Proposed Rulemaking have been corrected. For clarity and ease of interpretation, defined terms have been capitalized wherever they appear throughout the text of the Proposed Net Metering Rules.

29. In response to comments received, some clarifying language has been incorporated in some sections of the Proposed Net Metering Rules, as explained in Appendix B, but no substantial changes to the Proposed Net Metering Rules are required.

30. The text of the Proposed Net Metering Rules incorporating typographical corrections and clarifying modifications is set forth in Appendix A, attached hereto and incorporated herein by reference. Appendix A shows the clarifying modifications in boldface type.

31. No Notice of Supplemental Rulemaking is required.

32. Prepared in accordance with A.R.S. § 41-1057, the Economic, Small Business, and Consumer Impact Statement is set forth in Appendix C, attached hereto and incorporated herein by reference.

CONCLUSIONS OF LAW

1. Pursuant to Article XV of the Arizona Constitution and Title 40 of the Arizona Revised Statutes, the Commission has jurisdiction to enact A.A.C. R14-2-2301 through R14-2-2308.

2. Notice of the rulemaking and hearing was given in the manner prescribed by law.

3. The Proposed Net Metering Rules as set forth in Appendix A contain no substantial changes from the Proposed Net Metering Rules published in the Notice of Proposed Rulemaking.

4. Enactment of A.A.C. R14-2-2301 through R14-2-2308 as set forth in Appendix A is in the public interest.

5. The Summary of Comments and Response set forth in Appendix B should be adopted.

6. The Economic, Small Business, and Consumer Impact Statement set forth in Appendix C should be adopted.

ORDER

IT IS THEREFORE ORDERED that proposed A.A.C. R14-2-2301 through R14-2-2308 as set forth in Appendix A, the Summary of Comments and Response as set forth in Appendix B, and the Economic, Small Business, and Consumer Impact Statement, as set forth in Appendix C, are hereby adopted.

IT IS FURTHER ORDERED that the Commission's Utilities Division shall submit adopted Rules A.A.C. R14-2-2301 through R14-2-2308, as set forth in Appendix A; the Summary of Comments and Response, as set forth in Appendix B; and the Economic, Small Business, and Consumer Impact Statement, as set forth in Appendix C; to the Office of the Attorney General for endorsement.

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IT IS FURTHER ORDERED that the Commission's Utilities Division is authorized to make non-substantive changes in the adopted A.A.C. R14-2-2301 through R14-2-2308, and to the adopted Summary of Comments and Response, in response to comments received from the Attorney General's office during the approval process pursuant to A.R.S. § 41-1044 unless, after notification of those changes, the Commission requires otherwise.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

CHAIRMAN COMMISSIONER

COMMISSIONER COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto set my hand and caused the official seal of the Commission to be affixed at the Capitol, in the City of Phoenix, this _____ day of _____, 2008.

BRIAN C. McNEIL
EXECUTIVE DIRECTOR

DISSENT _____

DISSENT _____

TW:db

SERVICE LIST FOR: RULEMAKING REGARDING NET METERING

DOCKET NO.: RE-00000A-07-0608

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APPENDIX A

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION

FIXED UTILITIES

ARTICLE 23. NET METERING

Section	
R14-2-2301.	Applicability
R14-2-2302.	Definitions
R14-2-2303.	Requirements and Eligibility
R14-2-2304.	Metering
R14-2-2305.	New or Additional Charges
R14-2-2306.	Billing for Net Metering
R14-2-2307.	Net Metering Tariff
R14-2-2308.	Filing and Reporting Requirements

ARTICLE 23. NET METERING

R14-2-2301. Applicability

These rules govern the treatment of Electric Utility Customers in Arizona who wish to interconnect with the Electric Utility which serves them and engage in Net Metering operation as defined below. These rules apply to all Electric Utilities, as defined in these rules.

R14-2-2302. Definitions

For purposes of this Article, the following definitions apply unless the context requires otherwise:

1. "Avoided Costs" means the incremental costs to an Electric Utility for electric energy or capacity or both which, but for the purchase from the Net Metering Facility, such utility would generate itself or purchase from another source.

2. "Biomass" means any raw or processed plant-derived organic matter available on a renewable basis, including:

a. Dedicated energy crops and trees;

b. Agricultural food and feed crops;

c. Agricultural crop wastes and residues;

d. Wood wastes and residues, including:

i. Landscape waste,

ii. Right-of-way tree trimmings, or

iii. Small diameter forest thinnings that are 12 inch in diameter or less;

e. Dead and downed forest products;

f. Aquatic plants;

g. Animal wastes;

h. Other vegetative waste materials;

i. Non-hazardous plant matter waste material that is segregated from other waste;

j. Forest-related resources such as:

i. Harvesting and mill residue,

ii. Pre-commercial thinnings,

iii. Slash, and

iv. Brush;

k. Miscellaneous waste such as:

i. Waste pallets,

ii. Crates, and

iii. Dunnage; or

l. Recycled paper fibers that are no longer suitable for recycled paper production, but not including:

i. Painted, treated, or pressurized wood,

ii. Wood contaminated with plastics or metals,

iii. Tires, or

iv. Recyclable post-consumer waste paper.

3. "Biogas" means gases that are derived from:

a. Plant-derived organic matter,

b. Agricultural food and feed matter,

c. Wood wastes,

d. Aquatic plants,

e. Animal wastes,

f. Vegetative wastes,

g. Wastewater treatment facilities using anaerobic digestion, or

h. Municipal solid waste through:

i. A digester process,

ii. An oxidation process, or

iii. Other gasification process.

4. "Combined Heat and Power" or "CHP" (also known as cogeneration) means a system that generates electricity and useful thermal energy in a single, integrated system **such that the useful power output of the facility plus one-half the useful thermal energy output during any 12-month period must be no less than 42.5 percent of the total energy input of fuel to the facility.**

5. "Commission" means the Arizona Corporation Commission.

6. "Electric Utility" or "Utility" means an electric distribution company that constructs, operates, and maintains the electrical distribution system for the receipt and delivery of power.

7. "Electric Utility Customer" or "Customer" means an end-use retail Customer served under a Utility's rate schedule.

8. "Fuel Cell" means a device that converts the chemical energy of a fuel directly into electricity without intermediate combustion or thermal cycles. For purposes of these Net Metering rules, the source of the chemical reaction must be derived from Renewable Resources.

9. "Geothermal" means heat from within the earth's surface.

10. "Hydroelectric" means the kinetic energy derived from moving water.

11. "Net Metering" means service to an Electric Utility Customer under which electric energy generated by or on behalf of that Electric Utility Customer from a Net Metering Facility and delivered to the Utility's local distribution facilities may be used to offset electric energy provided by the Electric Utility to the Electric Utility Customer during the applicable billing period.

12. "Net Metering Customer" means any Arizona Customer who chooses to take electric service in the manner described in the definition of Net Metering above, and under the Net Metering tariff, as described in Section R14-2-2307.

13. "Net Metering Facility" means a facility for the production of electricity that:

    a. Is operated by or on behalf of a Net Metering Customer and is located on the Net Metering Customer's premises;

    b. Is intended primarily to provide part or all of the Net Metering Customer's requirements for electricity;

c. Uses Renewable Resources, a Fuel Cell, or CHP to generate electricity;

d. Has a generating capacity less than or equal to 125% of the Net Metering Customer's total connected load, or in the absence of customer load data, capacity less than or equal to the Customer's electric service drop capacity; and

e. Is interconnected with and can operate in parallel and in phase with an Electric Utility's existing distribution system.

14. "Renewable Resources" means natural resources that can be replenished by natural processes, including:

a. Biogas,

b. Biomass,

c. Geothermal,

d. Hydroelectric,

e. Solar, or

f. Wind.

15. "Solar" means radiation or heat from the Earth's sun that produces electricity from a device or system designed for that purpose.

16. "Wind" means energy derived from wind movement across the earth's surface that produces electricity from a device or system designed for that purpose.

R14-2-2303. Requirements and Eligibility

A. An Electric Utility shall interconnect with any retail customer with a Net Metering Facility in the Electric Utility's service territory.

B. Facilities with a generating capability greater than the limit specified in Section R14-2-2302(13)(d) shall require a special contract between the Utility and the Customer.

. . .

R14-2-2304. Metering

The meter that is installed on Net Metering Facilities after the effective date of these rules shall be capable of registering and accumulating the kilowatt-hours ("kWh") of electricity flowing in both directions in each billing period.

R14-2-2305. New or Additional Charges

Net Metering charges shall be assessed on a nondiscriminatory basis. Any proposed charge that would increase a Net Metering Customer's costs beyond those of other customers with similar load characteristics or customers in the same rate class that the Net Metering Customer would qualify for if not participating in Net Metering shall be filed by the Electric Utility with the Commission for consideration and approval. The charges shall be fully supported with cost of service studies and benefit/cost analyses. The Electric Utility shall have the burden of proof on any proposed charge.

R14-2-2306. Billing for Net Metering

A. On a monthly basis, the Net Metering Customer shall be billed or credited based upon the rates applicable under the Customer's currently effective standard rate schedule and any appropriate rider schedules.

B. The billing period for Net Metering will be the same as the billing period under the Customer's applicable standard rate schedule.

C. If the kWh supplied by the Electric Utility exceed the kWh that are generated by the Net Metering Facility and delivered back to the Electric Utility during the billing period, the Customer shall be billed for the net kWh supplied by the Electric Utility in accordance with the rates and charges under the Customer's standard rate schedule.

D. If the electricity generated by the Net Metering Customer exceeds the electricity supplied by the Electric Utility in the billing period, the Customer shall be credited during the next billing

period for the excess kWh generated. That is, the excess kWh during the billing period will be used to reduce the kWh supplied (not kW or kVA demand or customer charges) and billed by the Electric Utility during the following billing period.

E. Customers taking service under time-of-use rates who are to receive credit in a subsequent billing period for excess kWh generated shall receive such credit during the next billing period during the on- or off-peak periods corresponding to the on- or off-peak periods in which the kWh were generated by the Customer.

F. Once each calendar year the Electric Utility shall issue a check or billing credit to the Net Metering Customer for the balance of any credit due in excess of amounts owed by the Customer to the Electric Utility. The payment for any remaining credits shall be at the Electric Utility's Avoided Cost. That Avoided Cost shall be clearly identified in the Electric Utility's Net Metering tariff.

R14-2-2307. Net Metering Tariff

A. Each Electric Utility shall file, for approval by the Commission, a Net Metering tariff within 120 days from the effective date of these rules, including financial information and supporting data sufficient to allow the Commission to determine the Electric Utility's fair value for the purposes of evaluating any specific proposed charges. The Commission shall issue a decision on these filings within 120 days.

B. The Net Metering tariff shall specify standard rates for annual purchases of remaining credits from Net Metering Facilities and may specify total utility capacity limits. If total utility capacity limits are included in the tariff, such limits must be fully justified.

C. Electric utilities may include seasonally and time of day differentiated Avoided Cost rates for purchases from Net Metering Customers, to the extent that Avoided Costs vary by season and time of day.

R14-2-2308. Filing and Reporting Requirements

A. Prior to May 1 of each year, each Electric Utility shall file a report listing all existing Net Metering Facilities and the inverter power rating or generator rating as of the end of the previous calendar year.

B. Also included in this report shall be, for each existing Net Metering Facility, the monthly amount of energy delivered to and from the Electric Utility and, if available, the monthly peak demand delivered to and from the Electric Utility.

Appendix B

SUMMARY OF THE COMMENTS MADE REGARDING THE RULE AND THE AGENCY RESPONSE TO THEM

ARTICLE 23. NET METERING

Comments Received on Proposed Net Metering Rules Following the Notice of Proposed Rulemaking

R14-2-2302. Definitions

R14-2-2302.4 "Combined Heat and Power or CHP (also known as cogeneration)"

Issue: APS proposes that this definition be replaced with a new definition of "Renewable Combined Heat and Power or (RCHP)." APS proposes deleting the entire definition of CHP appearing in this Section, and adding the following new definition of RCHP to the Net Metering Rules: "'RCHP' or 'Renewable Combined Heat and Power' (also known as cogeneration) means a distributed generation system, fueled by an Eligible Renewable Energy Resource, that produces both electricity and useful renewable process heat. Qualifying RCHP systems shall meet all PURPA efficiency and effective utilization of heat production standards for a Qualifying Facility certification as set forth in 18 C.F.R. § 292.205." APS' proposed new definition is similar to the definition of "Renewable Combined Heat and Power System" that appears in the Commission's Renewable Energy Standard and Tariff ("REST") Rules, A.A.C. R14-2-1801 *et seq.*, at A.A.C. R14-2-1802.B.5. APS recommends this definition change in conjunction with its recommendation to replace "CHP" with "RCHP" in Section 2302.13.c., discussed below.

Distributed Energy Association of Arizona ("DEAA") does not agree with APS' proposal to replace the definition of CHP with a definition of RCHP, because DEAA does not agree that Net Metering should apply solely to promote renewable resources. DEAA argues that Decision

No. 67744 (April 7, 2005), which directed the Commission's Utilities Division ("Staff") to schedule workshops to consider issues concerning distributed generation, interconnection and net metering, did not state that distributed generation issues are limited to renewable resources; that the August 24, 2006, announcement of a workshop on net metering did not indicate that net metering should only apply to renewable resources; and that the minutes from the net metering workshop did not state that net metering standards were to be limited to only renewable resources. DEAA also argues that Decision No. 69877 (August 28, 2007), which adopted the Public Regulatory Policies Act of 1978 ("PURPA") standard on net metering, does not limit net metering to only renewable resources. DEAA's position is that all CHP systems meeting PURPA efficiency standards should be included and allowed under the Net Metering Rules.

Staff disagrees with APS that net metering should be available only to renewable resource facilities. Staff contends that CHP has a greater overall efficiency as compared to other types of generation because CHP uses the waste heat in other processes, and distributed generation using fossil-fueled CHP reduces the amount of fossil fuels used on a Utility's system because its greater efficiency is displacing less-efficient Utility generation.

Analysis: The Net Metering Rules are not intended to apply only to renewable resources. CHP is a valuable generation source because it has a greater overall efficiency as compared to other types of generation due to the fact that CHP uses the waste heat in other processes, and distributed generation using fossil-fueled CHP can reduce the amount of fossil fuels used on a Utility's system because CHP's greater efficiency can displace less-efficient Utility generation. We will therefore not adopt this recommendation by APS to replace the definition of "Combined Heat and Power" with a definition of "Renewable Combined Heat and Power." APS' alternative recommendation, discussed below, would clarify that PURPA-type standards for efficiency will be met by CHP systems qualifying for Net Metering for which any fuel is a non-renewable

resource. As set forth below, we adopt the clarifying language to that effect which Staff proposed for this definition instead of replacing it with RCHP as proposed by APS.

Resolution: Retain this definition with additional clarifying language regarding CHP efficiency, as discussed below.

Issue: As an alternative to its recommendation to replace the definition of "Combined Heat and Power" with a definition of "Renewable Combined Heat and Power," and its recommendation to replace "CHP" with "RCHP" in Section 2302.13.c, APS proposes that language be added to this definition to specify that CHP facilities must meet the minimum efficiency standards of Qualified Facilities as defined in PURPA. APS argues that non-renewable distributed generation should not be subsidized if it is less efficient than the Utility-owned generation it would replace. APS' alternative recommendation is to add the following sentence to the end of Section 2302.4: "Qualifying CHP systems shall meet all PURPA efficiency and effective utilization of heat production standards for a Qualifying Facility certification as set forth in 18 C.F.R. § 292.205 as promulgated at the time these rules go into effect."

Duncan Valley Electric Cooperative, Inc., Graham County Electric Cooperative, Inc., Mohave Electric Cooperative, Inc., Navopache Electric Cooperative, Inc., Trico Electric Cooperative, Inc., and Sulphur Springs Valley Electric Cooperative, Inc. (collectively, the "Electric Cooperatives") are also concerned that the definition of CHP would provide incentives for distributed generation from resources that are not qualified as renewable energy resources. The Electric Cooperatives argue that allowing non-renewable energy distributed generation onto the grid as Net Metering customers could displace renewable energy distributed generation resources, thereby interfering with Utilities' ability to meet their annual distributed renewable energy requirements under the REST Rules. However, the Electric Cooperatives are in agreement with APS that PURPA efficiency and useful heat definitions of a Qualified Facility should apply to qualification for

Net Metering service.

DEAA states that it does not agree with the premise of the Electric Cooperatives' arguments for restricting CHP to only renewable resources. DEAA takes the position that all CHP systems meeting PURPA efficiency standards should be included and allowed under the Net Metering Rules. DEAA does, however, agree with APS' alternative recommendation to require CHP systems to meet the efficiency standards of Qualified Facilities as defined under PURPA.

Staff agrees with APS and DEAA that to ensure the efficiency of a CHP system, PURPA-type standards for efficiency should be met. Staff proposes adding the following clarifying language at the end of this Section: " such that the useful power output of the facility plus one-half the useful thermal energy output during any 12-month period must be no less than 42.5 percent of the total energy input of fuel to the facility."

Analysis: We agree with APS, the Electric Cooperatives, DEAA and Staff that clarifying language should be added to this Section to ensure that PURPA-type standards for efficiency will be met by Net Metering CHP systems. Staff's proposed language best provides the needed clarity, simplicity, and certainty.

Resolution: Add the following language to the end of this Section: " such that the useful power output of the facility plus one-half the useful thermal energy output during any 12-month period must be no less than 42.5 percent of the total energy input of fuel to the facility."

R14-2-2302.13 "Net Metering Facility"

R14-2-2302.13.c

Issue: APS argues that this definition would allow for the subsidization of non-renewable energy such as natural gas or diesel. APS proposes modification of this Section by replacing "CHP" with "RCHP."

For the same reasons summarized in the discussion of Section 2302.4 above, DEAA does not agree with APS' proposal to replace "CHP" with "RCHP" in this Section.

For the same reasons summarized in the discussion of Section 2302.4 above, Staff disagrees with APS and the Electric Cooperatives that Net Metering should be available only to renewable resource facilities, and also opposes APS' proposal to replace "CHP" with "RCHP" in Section 2302.13.c.

Analysis: The Net Metering Rules are not intended to apply only to renewable resources. CHP is a valuable generation source because it has a greater overall efficiency as compared to other types of generation due to the fact that CHP uses the waste heat in other processes, and distributed generation using fossil-fueled CHP can reduce the amount of fossil fuels used on a Utility's system because CHP's greater efficiency can displace less-efficient Utility generation. APS' alternative recommendation, discussed above, would clarify that PURPA-type standards for efficiency will be met by CHP systems qualifying for Net Metering for which any fuel is a non-renewable resource. As set forth above, we adopt the clarifying language to that effect which Staff proposed for the definition of Combined Heat and Power, instead of replacing "CHP" with "RCHP" in this Section.

Resolution: No change required.

R14-2-2302.13.d

Issue: The Electric Cooperatives request that "125%" as stated in this Section be deleted and replaced with "100%." The Electric Cooperatives argue that this change is necessary because there will be a need for total distributed generation limits to maintain system reliability, and that allowing systems sized to 125 percent of total connected load appears to provide an incentive for customers to install more distributed generation equipment so that the customer could regularly

sell unused energy to the Utility. The Electric Cooperatives express concern with the potential need to upgrade their distribution systems to meet the 125 percent allowance. The Electric Cooperatives state that they design and size their distribution system based on 100 percent of customers' total connected load, and contend that additional distribution plant investment would be required to meet the 125 percent of total connected load allowance for distributed generation interconnection. The Electric Cooperatives also state a concern with a future need to install energy storage assets to manage the "energy storage" demands imposed by Net Metering Customers, pointing to language in the Staff Report accompanying the original proposed draft Net Metering Rules which notes that customers will use Net Metering for " . . . essentially storing excess power on the grid. . ." The Electric Cooperatives contend that this comprises a new role for which Utilities' assets are not appropriately suited.

Interstate Renewable Energy Council ("IREC") opposes changing "125%" to "100%." IREC agrees with the Electric Cooperatives that Net Metering Customers should not be provided an incentive to oversize their distributed generation system, but argues that this issue is adequately addressed by Section 2302.13.b, which defines a Net Metering Facility as a facility "intended primarily to provide part or all of the Net Metering Customer's requirements for electricity." IREC interprets this limitation to mean that only systems that are sized to meet a customer's load qualify for Net Metering. IREC argues that Net Metering is intended to compensate distributed generation system owners for electricity provided to a Utility on a regular, net basis, and that if system sizes were limited such that customers with distributed generation systems were unlikely to export energy, there would be no need for Net Metering. IREC states that it fully supports the Commission's decision to require avoided cost payments for annual net excess generation, but that it believes the most appropriate means to address system over-sizing concerns would be to remove avoided cost payments for annual excess or, in the alternative, direct such payments to

low-income assistance programs. IREC contends that limiting system size to a percentage variant of peak demand would not prevent a system from being an annual net exporter and might well have the unintended consequence of preventing Arizonans from sizing on-site renewable generation to meet their on-site needs.

Solar Advocates also disagree with the Electric Cooperatives. Solar Advocates argue that the Electric Cooperatives' concern, that distribution system upgrades would be required because distributed generation output could produce flow back into the system at a level greater than 100 percent of total connected load, assumes the extraordinarily rare event that 100 percent of customers on given distribution circuit have installed the maximum size system possible under the Net Metering Rules. Solar Advocates point out that the National Electric Code addresses back-feeding distributed generation devices, and limits the amperage of any device feeding back onto the grid to safe levels. Solar Advocates argue that the safety and reliability related limitations built into interconnection standards undercut the Electric Cooperatives' stated concerns.

Staff also clarifies that the Electric Cooperatives appear to misunderstand the concept of "energy storage" on the grid as discussed in the referenced Staff Report to mean that an investment in energy storage assets is required. Staff explains that no investment in energy storage assets will be required by Net Metering, but that instead, Staff's wording "essentially storing excess power on the grid" in the Staff Report referenced by the Electric Cooperatives simply refers to the fact that with net metering, the grid acts as a "virtual" storage system, by which "stored" power is returned to the customer by Utility generation, not from an actual storage facility, and that no investment in energy storage assests would be required by the Net Metering Rules.

Staff states that because power is sold to the Utility at avoided cost, it is unlikely that Net

Metering customers would greatly over-size their systems and thus force Utilities to purchase excess power. Staff also points out that generating significantly beyond a Net Metering Customer's requirements for electricity would violate the Net Metering Rules, because a Net Metering Facility is defined in Section 2302.13.b is a facility intended primarily to provide part or all of the Net Metering Customer's requirements for electricity.

According to Staff, the Electric Cooperatives' concern that Utilities would have to upgrade distribution systems to meet 125 percent of connected load is unfounded. Staff states that distribution systems are designed incorporating the diversity of customer load, i.e., that not all customers will demand maximum power at the same time. Staff states that the same concept of diversity applies in the delivery of power back to the Utility, and contends that the probability that a large number of Net Metering Customers will be located close together and will be generating at their maximum capacity such that the local distribution system cannot handle the influx of power is too small to even consider as a possible event.

Analysis: As explained by Solar Advocates and Staff, the Electric Cooperatives' concern that distribution system upgrades would be required due to distributed generation output producing flow back into the system at a level greater than 100 percent of total connected load is unfounded. The National Electric Code addresses back-feeding distributed generation devices, and limits the amperage of any device feeding back onto the grid to safe levels. A Net Metering Facility is intended primarily to provide part or all of the Net Metering Customer's requirements for electricity, and oversizing a system in order to sell electricity back to the Utility would violate the Net Metering Rules. Additionally, because electricity is sold back to the Utility at the Utility's avoided cost rather than retail, customers would have little incentive to oversize in order to sell back excess generation. As clarified by Staff, implementation of the Net Metering Rules will not require Utility investment in energy storage assets.

Resolution: No change required.

Issue: The Electric Cooperatives request that the words "total connected load" in this Section be replaced with the words "peak demand." They are concerned with the difficulty in estimating total connected load for their customers who do not have demand meters.

In response to the Electric Cooperatives' concern regarding measurement of total connected load, Solar Advocates argue that this concern would only come into play in the event of a dispute over system size, which Solar Advocates believes would be rare. Solar Advocates argue that measuring total connected load may not be as difficult as the Electric Cooperatives may fear, and that if the data on total connected load is not available, that the customer's electric drop capacity may be used for system sizing, as allowed in Section 2302.13.d. Solar Advocates also argue that peak demand is a number difficult to estimate, and contend that adoption of this word replacement has the potential to exclude over 25 percent of solar distributed generation systems sold in Maricopa County from participation in Net Metering. Solar Advocates bases this figure on a report by one Solar Alliance member company that over 25 percent of the systems it has installed have a capacity exceeding 125 percent of the estimated peak average demand of the home, which is often around 7 to 8 kW.

IREC disagrees with the Electric Cooperatives that lack of demand meters or any difficulty estimating total connected load necessitates a limitation of system size to a percentage of peak demand. IREC also points out that according to the Electric Cooperatives' own written comments, they regularly undertake total connected load estimations in designing and sizing their distribution systems. IREC argues that it is difficult to understand how, in the absence of a demand meter, peak demand would be any easier to measure than total connected load. Like Solar Advocates, IREC interprets Section 2302.13.d to allow Utilities to limit Net Metering eligibility to customers with systems sized below their service drop capacity, in the event that

estimating total connected load proves to be overly involved and difficult.

Staff also states that Section 2302.13.d provides that the customer's service drop capacity would be the generating capacity limit in the event connected load determination is difficult. Staff argues that using peak demand as the limit is unacceptable because peak demand can continuously change.

Analysis: The Net Metering Rules already provide an alternative means for determining generating capacity limits in the event that a Utility finds it difficult to determine total connected load. The Electric Cooperatives' proposed wording replacement is therefore not necessary.

Resolution: No change required.

R14-2-2305 "New or Additional Charges"

R14-2-2305.A

Issue: IREC proposes that Section 2305.A be clarified by replacing the words "other customers" with "another Net Metering Customer."

DEAA states that it can support IREC's stated recommended modifications to Section 2305.

Staff believes that a misinterpretation of the meaning of Section 2305.A and Section 2305.B may be possible, and recommends the following new language for a single Section 2305 to replace both Section 2305.A and Section 2305.B: "Net Metering charges shall be assessed on a nondiscriminatory basis. Any proposed charge that would increase a Net Metering Customer's costs beyond those of other customers with similar load characteristics or customers in the same rate class that the Net Metering Customer would qualify for if not participating in Net Metering shall be filed by the Electric Utility with the Commission for consideration and approval. The charges shall be fully supported with cost of service studies and benefit/cost analyses. The Electric Utility shall have the burden of proof on any proposed charge."

Analysis: Staff's proposed language provides clarification of both Section 2305.A and Section 2305.B in order to avoid misinterpretation.

Resolution: Replace both Section 2305.A and 2305.B with the following new Section 2305: "Net Metering charges shall be assessed on a nondiscriminatory basis. Any proposed charge that would increase a Net Metering Customer's costs beyond those of other customers with similar load characteristics or customers in the same rate class that the Net Metering Customer would qualify for if not participating in Net Metering shall be filed by the Electric Utility with the Commission for consideration and approval. The charges shall be fully supported with cost of service studies and benefit/cost analyses. The Electric Utility shall have the burden of proof on any proposed charge."

R14-2-2305.B

Issue: IREC believes that the requirement of Section 2305.B that Net Metering costs be assessed on a nondiscriminatory basis with respect to other customers with similar load characteristics should be clarified with regard to charging Net Metering customers additional fees or charges or imposing equipment or other requirements. IREC proposes the addition of language which currently appears in the REST Rules at R14-2-1801.M, as follows: "The Utility may not charge the customer-generator any additional fees or charges or impose any equipment or other requirements unless the same is imposed on customers in the same rate class that the customer-generator would qualify for if the customer-generator did not have generation equipment." IREC argues that this clarification is necessary to ensure that additional fees are not imposed on Net Metering customers as a whole, which can substantially increase the cost of self-generation and neutralize the benefits of net metering, particularly for small systems.

DEAA states that it can support IREC's stated recommended modifications to Section 2305.

APS opposes the addition of the language recommended by IREC because it would restrict Utilities' ability to collect costs as allowed by Section 2305.A, when such costs are properly supported by a cost of service study and benefit/cost analysis. APS further opposes the language because APS believes it appears to expand the recovery restriction to include "any equipment or other requirements." APS argues that such restrictions would be directly contrary to the Commission's interconnection rules and APS' current approved tariffs which allow for the recovery of increased costs incurred based upon a customer's specific load requirements or characteristics, even if such costs to serve that customer are greater than the cost to serve a typical customer in the same class. APS argues that the language would restrict APS from charging the additional cost of a bi-directional meter, which is a piece of equipment used only by Net Metering Customers. APS argues that in any event, the language is not needed, because the current language requires the Utility to fully justify such costs and receive Commission approval under Section 2305.A.

As discussed above, Staff recommends new language for a single Section 2305 to replace both Section 2305.A and Section 2305.B.

Analysis: Staff's proposed language provides clarification of both Section 2305.A and Section 2305.B in order to avoid misinterpretation.

Resolution: Replace Section 2305.A and 2305.B with the new Section 2305 language recommended by Staff as discussed above.

Issue: The Arizona Solar Energy Industries Association and The Solar Alliance ("Solar Advocates") recommend that the language of this Section be changed to read as follows: "<u>No Net Metering charges shall be assessed to a Net Metering customer that are not assessed to all customers with similar load characteristics, regardless of whether or not they participate in</u>

Net Metering."

DEAA supports the language proposed by Solar Advocates to clarify the intent and meaning of this Section.

For the same reasons it opposes the language change to this Section proposed by IREC, APS opposes the addition of the language recommended by Solar Advocates.

As discussed above, Staff recommends new language for a single Section 2305 to replace both Section 2305.A and Section 2305.B.

Analysis: Staff's proposed language provides clarification of both Section 2305.A and Section 2305.B in order to avoid misinterpretation.

Resolution: Replace Section 2305.A and 2305.B with the new Section 2305 language recommended by Staff as discussed above.

R14-2-2306 "Billing for Net Metering"

R14-2-2306.E

Issue: The Electric Cooperatives state that they do not support participation in a time-of-use program for Net metering customers because they believe that the costs for such customers would not properly be recovered in the time-of-use rates. The Electric Cooperatives state that should the Commission require offering a time-of-use program to Net Metering customers, such customers will need a separate time-of-use rate class to appropriately reflect the costs of service for Net Metering customers. The Electric Cooperatives state that using existing available technology, the costs could be high, but may decline with implementation of smart metering systems. The Electric Cooperatives suggest no language changes for this Section, but state that their proposed Net Metering tariffs will reflect technology for time-of-use Net Metering at the time the tariffs are presented.

Staff responds that if Net Metering is offered to time-of-use customers, and additional costs are incurred, Section 2305 allows Utilities to file for approval of charges to recover additional costs.

Analysis: The Electric Cooperatives suggest no language changes for this Section. At the time the Commission reviews a proposed Net Metering Tariff, the Commission will determine whether it is appropriate.

Resolution: No change required.

R14-2-2307 "Net Metering Tariff"

R14-2-2307.B

Issue: IREC states that the following language regarding capacity limits should be added to the end of this Section: "and must be consistent with applicable REST goals for renewable distributed generation resources." IREC argues that capacity limits artificially restrict the expansion of on-site renewable generation and curtail the market for new renewable energy distributed generation systems. IREC explains that under the REST Rules, Utilities must obtain 15 percent of their retail electric load from eligible renewable resources by 2025, with 30 percent of this amount coming from renewable distributed generation resources, and that accordingly, Utilities will need to procure 4.5 percent of their electricity supply from renewable distributed generation by 2025. IREC contends that as such, it will be difficult to meet REST distributed generation goals if Net Metering enrollment is capped below 4.5 percent of a Utility's electric supply.

Solar Advocates also oppose capacity limits in general, and agree with IREC that capacity limits should be set above 4.5 percent at the very least, to avoid hindering compliance with Renewable Energy Standard goals.

DEAA states that it can support IREC's stated recommended modifications to Section 2307.

APS argues that if CHP eligibility were restricted to renewable applications, and its proposed definition of "RCHP" were adopted (see discussion of Section 2302 above), APS would have less of a concern about linking capacity requirements to the Renewable Energy Standard. APS states that capacity limits would likely become an issue only if non-renewable CHP "crowds out" the available capacity for distributed generation on a Utility's system.

Staff states that it does not believe the proposed language is necessary, because at the time the Commission reviews a Net Metering tariff, the Commission may determine whether a requested capacity limit is acceptable.

Analysis: At the time the Commission reviews a Net Metering Tariff, the Commission will determine whether a requested capacity limit is acceptable, based on the facts presented at that time.

Resolution: No change required.

Issue: Solar Advocates propose the addition of a new Section 2307.D as follows: "To the extent practicable, R14-2-2301 through R14-2-2308, inclusive, shall be implemented consistent with the Renewable Energy Standard and Tariff (R14-2-1801 et seq.)" Solar Advocates alternatively suggests that the same wording could be included in the Decision approving the Net Metering Rules.

DEAA does not agree with the proposed new Section 2307.D, arguing that it appears to be an effort to link the implementation of the Net Metering Rules and the REST Rules. DEAA argues that the PURPA standard adopted by the Commission in Decision No. 69877 does not limit Net Metering to only renewable resources.

APS interprets the proposed language as simply stating the principle that all Commission regulations should be interpreted and implemented, to the extent practicable, in a manner that

gives effect to each, and therefore does not oppose this addition to Section 2307.

Staff states that it does not believe the language proposed by Solar Advocates is necessary.

Analysis: The Net Metering Rules are not intended to apply only to renewable resources. Because all Commission regulations should be interpreted and implemented, to the extent practicable, in a manner that gives effect to each, the new Section proposed by Solar Advocates is not necessary.

Resolution: No change required.

APPENDIX C

ECONOMIC, SMALL BUSINESS, AND CONSUMER IMPACT STATEMENT

A. Economic, small business, and consumer impact summary.

1. Proposed rulemaking.

Proposed permanent Rules R14-2-2301 through -2307 allow any retail customer of a Commission-jurisdictional Electric Utility to construct a renewable resource or Combined Heat and Power ("CHP") facility and interconnect for the purpose of exchanging electric power and energy with the Electric Utility that normally serves them. Under the proposed rules, Net Metering shall be a service of Arizona electric distribution utilities under a Commission-approved tariff.

2. Brief summary of the economic impact statement.

The public at large would benefit from Net Metering since it would encourage more of the electricity produced in Arizona to be generated from renewable resources and high-efficiency facilities. Electricity produced from renewable resources such as solar, wind, or biomass, or from CHP facilities, allows for lower levels of air emissions, and greater diversity and reliability of the energy supply in Arizona.

The cost to Electric Utilities to comply with the Net Metering Rules will depend on several factors. These factors include the cost of metering and billing Net Metering Customers, and the Electric Utility's avoided cost of production. Also affecting the Electric Utility's cost would be the retail rates under which the Net Metering Customer takes service.

Any proposed charge for recovery of additional costs due to compliance with these rules shall be filed by the Electric Utility with the Commission for consideration and approval in compliance with R14-2-2305. The charges shall be fully supported with cost of service studies and benefit/cost analyses. The Electric Utility shall have the burden of proof on any proposed charge.

As stated in R14-2-2307, Electric Utilities will be required to file a tariff specifying standard rates for purchases of energy from Net Metering Facilities.

Utilities may incur additional costs of complying with reporting requirements, and reviewing or inspecting a customer's Net Metering Facility. The Utilities and their customers may benefit from the reduced load on their local distribution systems and a reduced need for procurement of generation and transmission resources if Net Metering encourages more customer-installed generation.

Customers of Electric Utilities who install Net Metering Facilities will incur an initial cost for the equipment, and then may benefit from the ability to meet their own electricity needs rather than purchase from the local Utility. Electric energy produced beyond customer needs by the Net Metering Facility is credited to the customer, in effect resulting in purchase by the Electric Utility at its avoided cost. Any class of Utility customer may install Net Metering Facilities.

Manufacturers, distributors, and installers of eligible Net Metering technologies can benefit because Net Metering Customers will purchase and install these eligible technologies. Eligible Net Metering technologies include solar, wind, biomass, biogas, geothermal, hydroelectric, and CHP facilities. Employees of the manufacturers, distributors, and installers of eligible technologies will benefit through increased job opportunities.

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

Jeffrey Pasquinelli, Public Utilities Analyst, and Kevin Torrey, Staff Attorney, at the Arizona Corporation Commission, 1200 W. Washington St., Phoenix, Arizona 85007.

B. Economic, small business, and consumer impact statement.

1. Identification of the proposed rulemaking.

The proposed rules would be a new section under Title 14, Chapter 2 – Corporation Commission Fixed Utilities. Proposed permanent rules R14-2-2301 through -2308 govern the treatment of Electric Utility Customers in Arizona who wish to interconnect with the Electric Utility which serves them and engage in Net Metering operation as defined in the Rules. The Rules apply to all Electric Utilities, as defined in the Rules.

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. electric public service corporations
d. Arizona Corporation Commission
e. manufacturers and installers of renewable energy and CHP power plants in Arizona and their employees
f. public entities, such as schools, cities, counties, and 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.

To the extent that the implementing agency and other agencies are customers of Electric Utilities and install Net Metering Facilities, probable costs would include the costs of the Net Metering generation equipment. Benefits would include the ability to meet their own needs for electricity rather than purchase from the Electric Utility.

Probable costs to the Commission of the Net Metering Rules would include costs associated with reviewing reports, processing proposed tariffs and charges, and general overview and enforcement of the Net Metering Rules as a whole.

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

To the extent that political subdivisions are customers of Electric Utilities and install Net Metering Facilities, probable costs would include the costs of the Net Metering generation equipment. Benefits would include the ability to meet their own needs for electricity rather than purchase from the Electric Utility.

Local governments may benefit from increased property tax revenues resulting from new Net Metering generation facilities being installed in Arizona. Local governments may also benefit from an increase in employment in the renewable energy business sector.

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 an Electric Utility would be any costs of complying with the Net Metering Rules. These costs may be recovered through the Electric Utility's rates to customers. Other costs may include penalties that may be imposed for failing to comply with the Net Metering Rules. The anticipated effect on revenues or payroll expenditures of Electric Utilities would likely be minimal.

To the extent that other businesses are customers of Electric Utilities and install Net Metering Facilities, probable costs would include the costs of the Net Metering generation equipment. Benefits would include the ability to meet their own needs for electricity rather than purchase from the Electric Utility.

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 renewable and CHP energy systems in Arizona may hire additional employees. The impact on public employment or Electric Utilities' employment is expected to be minimal.

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

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

Businesses that are subject to the proposed rules are "Electric Utilities," which are public service corporations that own, operate, and maintain electrical distribution systems in Arizona. Some of these Electric Utilities are small businesses, but others are large regional businesses.

Additional small businesses that could be impacted by the Net Metering Rules are small business customers of an Electric Utility that choose to become Net Metering Customers.

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

A cost to small Electric Utilities would be any costs of complying with the Net Metering Rules that are not recovered through the Utility's rates. Other costs could include penalties that

may be levied for noncompliance with the Net Metering Rules.

Other small businesses that are customers of Electric Utilities and choose to become Net Metering Customers would need to pay the rates included in the tariff filed pursuant to proposed R14- 2-2307.

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

The Commission could consider specific rate designs that may reduce the impact on small businesses when setting rates pursuant to proposed R14- 2-2305 or -2307.

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

The public at large would benefit from a Net Metering program that encourages a larger portion of the electricity sold in Arizona to be produced from high efficiency and renewable energy resources. Producing electricity from high efficiency and renewable energy resources has fewer adverse impacts on air, land, and water than producing electricity from conventional energy sources. In addition, most renewable resources rely on either no-cost resources (such as the sun, wind and geothermal heat) or very low-cost resources (e.g., biomass) which are available locally in Arizona and are not subject to supply disruptions, manipulation of market prices, or wild unanticipated fluctuations in price. These features contribute to the reliability of the energy supply that Arizonans will depend upon to meet future energy needs.

6. Probable effect on state revenues.

There may be an increase in state revenues from sales taxes on Net Metering Facility equipment purchases. There may also be increases in income taxes resulting from revenue increases in Arizona manufacture and installation of renewable technologies.

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

The Commission is unaware of any alternative methods of achieving the purpose of the proposed rulemaking that would be less intrusive or less costly.

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 data used to compile the information set forth in subsection B are reasonably adequate for these purposes.