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COMMENTS ON PROPOSED RULEMAKING CONCERNING
ELECTRIC RATES FOR SOLAR USERS

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PREFACE

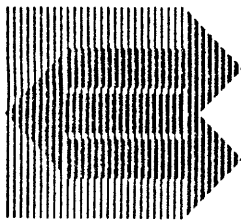
This paper presents written comments made on the record in response to proposed rulemaking by the Federal Energy Regulatory Commission (FERC) and the Economic Regulatory Administration (ERA). The source of authority for the rulemaking is the Public Utilities Regulatory Policy Act of 1978 (PURPA). Because the comments give insights into how the proposed rules might operate, they have been put into working paper form to allow their easy distribution.

All the proposed rulemaking concerns the rates to be set for electricity purchases and sales by users of solar energy. The two regulations proposed by FERC concern the rates to be set for purchase of electricity by and sale of electricity to qualifying facilities (QF's) and the certification process for determining qualifying status. The ERA has proposed a voluntary guideline under Title I of PURPA covering rates for solar users who only purchase power from the utility, but do not sell it back. Since all the proposed regulation may affect photovoltaics, these comments were written in order to make the concerns relevant to photovoltaics known.

For easy reference, relevant excerpts from PURPA, the proposed regulations, and the associated section-by-section analyses by the FERC and the ERA are included. They are referred to in the comments and the reader may find it helpful to refer to them in order to fully understand the comments.

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Comments Pertaining to Docket No. RM 79-54

These comments address proposed rulemaking in Docket No. 79-54 on qualifying facilities. They primarily address the rules for qualification and their interrelationship with the rules on rates proposed under Docket No. RM 79-55.

We have gained experience concerning the problems associated with cogeneration and small power production over the past three years working on the National Photovoltaics Program under contracts from the Department of Energy and the Jet Propulsion Laboratory. We also have other experience, both regulatory and technical, from other projects run under our Utility Systems program at the Energy Laboratory.

Our general comments are that, though the proposed regulations are fair, they do not encourage cogeneration and small power production as much as they might within the confines of fairness. More streamlined procedures which place less of a burden upon the applicant for qualifying status are plausible, and we recommend them below.

Our comments fall into five categories:

- 1) The need for official certification instead of allowing the rules to be self-executing;
- 2) The relationship between being a qualifying facility (QF) and being certified as one, especially as it affects the rules proposed under Docket No. RM 79-55;
- 3) The absence of a role for the states in qualification of facilities;
- 4) The relevance of discussions with the utility in determining qualifying status; and
- 5) The advisability of a 10 kW minimum size.

1. Official certification versus self-applying rules. While rules for determining whether a facility qualifies must be prescribed by FERC, nowhere is certification required. To require a small cogenerator or power production facility to become certified by FERC before it can claim the protections of PURPA places an obstacle to obtaining those protections.

A simpler procedure which simply defines a QF will go farther towards encouraging cogeneration and small power production. The need for certain information concerning the potential QF's operating characteristics can be satisfied by requiring this information to be filed either with FERC or the state regulatory commission. (See comment 3 below.) And the information can be filed by the manufacturer of the system for all the units it produces, thus obviating the need for case-by-case qualification. Upon such filing, the facility becomes qualified.

A utility must, of course, be allowed to challenge this self-qualification. But by framing the rule this way the burden is upon the utility to assert why the facility should not qualify. This should lessen the burden upon applicants, and also upon FERC.

While the procedures in section 292.208 may seem to do what we suggest they do not because they place the burden upon the applicant. Our suggestions require the initiation of a challenge to qualifying status to be initiated by the challenger in a complaint-like fashion, setting forth the grounds for challenge.

2. Being a QF and Certification as a QF. Section 292.102(b)(1) of subpart A seems to imply, by referring to facilities qualified under section 292.208, that a facility is not a QF until certified as a QF. Our opinion, as expressed above, is that certification should not be necessary to obtain the protections of PURPA. Perhaps a potential investor in cogeneration or small power production may desire certification, but the procedure should be optional.

3. The states and qualification. The entire flavor of PURPA, from the optional guidelines of Title I to section 210 and the recently proposed rules under it, is one of federalism in regulation. Unlike many areas of federal regulation in which the federal presence predominates over state involvement and often has preceded it, electric utility regulation has traditionally and still is a predominantly state function. Earlier versions of PURPA which would have mandated many of the federal standards of Title I were rejected in favor of voluntary standards in deference to this background of state regulation. And the rules proposed in Docket No. 79-55, under section 210, also reflect this view by leaving much (if not all) the detail on how to determine avoided costs, interconnection costs, and purchase and sale rates to the state regulatory commissions, out of federal hands. As such, the role of federal regulation in this area which seems to permeate the legislation is one of federal leadership in the context of active state regulation.

We are therefore puzzled by the centralization of the qualifying process. Why cannot the state regulatory commissions perform these functions? The FERC role under a state-dominated qualification scheme would be one of setting broad principles and monitoring state implementation (as under section 210) rather than centralizing the process.

Separating the functions of determining detailed costing rules for purchase and sale rates (which the rules proposed under Docket No. 79-55 leave, in our opinion wisely, to the states) from the qualifying process can well result in confusion, miscommunication, and a slowing of official processes, all to the detriment of cogeneration and small power production. The incentive to invest in cogeneration and small power production depends upon both the rates set and the ability to qualify; for innovative systems (which we all hope will be common) the ability to answer both questions in a single forum is essential to orderly and reasoned development of rules on both issues.

We think the authority for such rules can be found in section 210. If the rules which determine what a QF is are "necessary to encourage cogeneration and small power production" (section 210(a)) then section 210(f) grants the power needed to make the rules applicable to state regulatory authorities and nonregulated utilities. And we think the rules of subpart B are necessary to carry out the mandate of section 210. Whether or not an independent source of authority exists in section 201 is immaterial; we think 210(a) alone can be relied on, thus invoking 210(f).

4. Relevance of discussions with the utility in determining qualifying status. Utility cooperation with potential QFs will encourage cogeneration and small power production. And discussions with utilities prior to interconnection will help to resolve many technical problems. However, to require inclusion of these discussions in the application invites the charge that an application is approved or rejected depending upon the utility's acquiescence to interconnection.

The possibility that these discussions might improperly influence determinations of qualification must be eliminated. Even if the discussions are not so used, the mere possibility that they might cast a cloud upon the regulation. We therefore suggest that this requirement be dropped.

Note that if our suggestion of self-qualification is adopted, this problem does not even arise because the utility must then take positive steps to challenge the QF. It also will encourage the utilities to work with the QF to resolve technical problems rather than to discourage interconnection by raising technical issues without addressing them.

5. 10 kW minimum size. Our experience with photovoltaics suggests that the optimum size for a residential photovoltaic system may well be less than 10 kW; hence we object to the exclusion of systems smaller than 10 kW. We think that the

smaller systems are just as deserving of the protections which PURPA offers them as larger ones. To some extent section 292.105(b) attempts to obviate this; our comments on that provision and the notion of standard tariffs are in our comments for Docket No. 79-55, a relevant excerpt of which is appended to these comments. Even if section 292.105(b) is taken as given, it does not resolve the question of too high a minimum because it applies only to qualifying facilities; this implies that the small applicant must obtain a waiver under section 292.207 of the minimum size requirement. Placing such a burden upon the applicant with a system smaller than 10 kW may effectively exclude such an applicant from the market. Hence we recommend lowering the limit at least to 1 kW, if a limit is necessary at all.

Again, note that the problem of a limit is less serious if self-qualification is the rule. It would then be left to the utility to state why a system is too small to warrant interconnection.

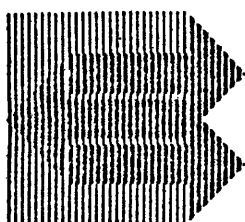
We hope these comments will prove useful in your promulgation of a final rule.

Excerpt from our comments for Docket No. 79-55:

5. The need for standard tariffs. We applaud the use of tariffs for QFs smaller than 10 kW. Only by avoiding the need for case-by-case determination of rates will these smaller systems be viable.

As we noted in our comments on the rules for determining qualifying status (Docket No. 79-54), for a facility smaller than 10 kW to be a QF requires a waiver of the 10 kW minimum. We again suggest that subpart B be modified to allow facilities smaller than 10 kW to qualify without any special problems being encountered.

While we favor use of standard tariffs for QFs smaller than 10 kW, we fail to understand why they should not be used to the extent practicable for larger QFs. The costs used to determine the rates are those of the utility, not the QF; the rates set are therefore a function of the utility's operation primarily. While the larger the QF the greater the impact upon the utility, most of the impact will fall upon differences in interconnection costs, not in generation. As we read "avoided costs" to be restricted primarily to the costs of generation, establishment of standard tariffs for larger systems should be feasible. We recommend it as it avoids much unnecessary case-by-case determination.



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Comments Pertaining to Docket No. RM 79-55

These comments pertain to rules proposed in Docket No. RM 79-55 pertaining to rates and exemptions for small power production and cogeneration. They pertain primarily to policy matters, with some legal matters (including phraseology) being addressed at the end. Most of the matters addressed are in subpart A; specific sections will be identified as addressed.

We have gained experience concerning the problems associated with cogeneration and small power production over the past three years on the National Photovoltaics Program, under contract from the Department of Energy and the Jet Propulsion Laboratory. We also have other experience, both regulatory and technical, from other projects run under our Utility Systems program at the Energy Laboratory. We hope to bring this experience to bear in commenting on the diverse provisions of the proposed regulations.

The comments do not fall into easy categories. Several concern the suggested criteria for rate-setting; some question how fully the proposed rules encourage cogeneration and small power production; others address some confusion in the way the rules are written. Each of our areas of concern is addressed in turn, with the more important areas being addressed first.

1. Scope of the rule. If we assume that utilities and potential qualifying facilities (QFs) have equal bargaining power, the blanket allowance in section 292.101(b) for negotiated contracts would be fine. But one large reason for PURPA is an assumption that utilities may have the edge in bargaining. Hence we disagree that QFs should be allowed to contract away freely their rights under section 210, or that contracts entered into prior to section 210's protections should necessarily be upheld.

Freedom of contract has some obvious advantages. It simplifies the regulatory process by allowing the parties to work out their own agreement. It facilitates experimentation with different institutional arrangements. But when the process of regulation might itself constitute a burden to the QF, the QF may be placed in a situation of accepting the terms offered or being forced to take the matter through

official channels. Contracts so entered into do not encourage cogeneration and small power production to the fullest; arguably, they do not even fulfill FERC's obligations to "insure" that utilities offer appropriate rates under sections 210(b) and 210(c) of PURPA.

Also, does a QF's signing of a contract with a utility defeat all its rights under PURPA? Section 292.101(b) seems to indicate this by allowing any inconsistency between the contract and the proposed rules to stand, whether or not waiver was intended. Surely this was not intended to be part of the rule.

We suggest that section 292.101(b) be dropped and replaced with language such as the following: "Contracts with rates or terms different from those otherwise required by subpart A are allowed only if they would reasonably further the goals of section 210(a) of PURPA." Such language would allow experimentation with arrangements while maintaining the protections of section 210 for the QF.

2. Avoided costs. We are happy to see the inclusion of capacity costs in avoided costs and agree with the reasoning for its legal authority. One point may benefit from clarification, however. Reading the rule as a whole and how the concept of avoided costs is used, and noting that section 292.108 addresses interconnection costs, avoided costs seem to be limited to costs associated almost exclusively with the generation of electricity and do not include transmission and distribution costs, etc. Section 292.102(b)(6) may benefit from this clarification.

3. Cessation of purchase obligations under section 292.105(e). According to this subsection, a utility may refuse to purchase power from a QF during designated periods when the utility might pay out more for purchases from QFs than it would incur through its own generation. This makes little sense for at least three reasons.

First, if the rates for purchase are set properly in relation to avoided costs, no such period should arise (assuming, as the rule does, some form of period pricing). If the avoided costs truly are zero or even negative, rates set at zero or negative are what the proposed rules require. Hence the utility should not be paying more for purchases at an avoided cost rate than by incurring the avoided costs. The provision is hence superfluous.

Second, to allow the purchase obligation to cease whenever costs of generation might be less than costs or purchases from QFs opens a very wide door for defeating the purposes of the rule. Costs need not be less; only the possibility of that needs to exist, and the obligation can be avoided.

Third, the example in the section-by-section analysis is absurd. Spinning reserve has higher operating costs than nuclear, and some is always on line. So the nuclear unit is the most expensive only when capacity costs are included. If there is excess capacity, the long run avoided costs for that period will not contain any capacity component. The avoided costs will be only the operating costs, and QFs wishing to supply at that low rate should be encouraged.

The subsection should clearly be dropped as redundant at best and counter to cogeneration and small power production at worst.

4. Capacity charges for "as available" power. Section 292.105(c) appears to permit the utility to offer rates based on whether the power is firm or "as available"; no middle ground is mentioned in the rule. We are puzzled by this, especially since photovoltaics are mentioned explicitly at 44 F.R. 61195 as having some capacity value. Hence the power supplied by photovoltaics is more valuable than "as available" but less valuable than firm power. Traditionally there has been no middle ground; we suggest that one be created for technologies such as photovoltaics whose generation is correlated with system load and which, in large numbers, result in a statistically stable (though not quite "firm") aggregate. At any event, section 292.105(c) should be modified to indicate that rates which are needed to comply with section 292.105(a), i.e. which are just, reasonable, and nondiscriminatory, may exceed the "as available" rates established in section 292.105(c)(1), and that a utility must offer them where appropriate.

5. The need for standard tariffs. We applaud the use of tariffs for QFs smaller than 10 kW. Only by avoiding the need for case-by-case determination of rates will these smaller systems be viable.

As we noted in our comments on the rules for determining qualifying status (Docket No. 79-54), for a facility smaller than 10 kW to be a QF requires a waiver of the 10 kW minimum. We again suggest that subpart B be modified to allow facilities smaller than 10 kW to qualify without any special problems being encountered.

While we favor use of standard tariffs for QFs smaller than 10 kW, we fail to understand why they should not be used to the extent practicable for larger QFs. The costs used to determine the rates are those of the utility, not the QF; the rates set are therefore a function of the utility's operation primarily. While the larger the QF the greater the impact upon the utility, most of the impact will fall upon differences in interconnection costs, not in generation. As we read "avoided costs" to be restricted primarily to the costs of generation, establishment of standard tariffs for larger systems should be feasible. We recommend it as it avoids much unnecessary case-by-case determination.

6. Adequacy of cost data filings and reliance upon utility data. The general rule presented in section 292.103(b) provides much information useful to the potential QF. The avoided cost data which section 292.103(b) requires are, however, inadequate in our opinion for facilities which do not produce firm power. Taking the example of photovoltaics, the filings do not give an indication of the effects of, say, a 5% penetration of photovoltaics into the utility's system; there will be some capacity value, the actual amount depending upon the utility's configuration of plants and the daily and seasonal load profiles. While we have no specific recommendation of language to cure the problem, we suggest that measures of avoided costs which take into account factors other than removal of 100 mW blocks of firm power be considered.

Because we think the matter of determining avoided costs is not so simple as section 292.103(b) suggests, we object to the establishment of the rebuttable presumption in section 292.105(a)(3) that the rates filed are satisfactory if they agree with the utility's filings of cost data. This places undue emphasis upon the filing, making it attain significance beyond information value. First, it places the QF in the position of having to challenge the utility's data in order to change the rates. This amounts, in essence, to rates set by the utility. Second, to avoid the effect of the presumption, QFs should challenge the data when filed. The incentive to do this is small, particularly for those who are merely contemplating investment in cogeneration or small power production. If they do not challenge at the time of filing, they face rates which can be changed only if they sustain the burden of proof that the utility's rates as embodied in the cost data are wrong.

We recommend a procedure with at least a neutral burden of proof, such as a generic hearing on the rates in the state regulatory authority. To further reduce the burden upon QFs for undergoing rate hearings, we recommend appointment of an advocate for their position in the rate hearings.

7. Flexibility in state implementation. We applaud the desire to allow latitude to the states in determining the rates under these proposed rules. It is in accordance with the philosophy implicit throughout PURPA.

We are most comfortable with this state autonomy in the area of rates. We do have some concerns with the latitude granted under section 292.110 as it allows practically any reliability standard. While this area must be left open to permit technological flexibility and advancement, a few guiding principles such as cost minimization of compliance should be adopted. Also, we strongly suggest that weather-dependency be ruled out as a factor in determining the adequacy of a QF's reliability.

8. Transmission of purchases to other utilities. Allowing QFs to have their power "transmitted" to another utility with higher avoided costs is a good idea. But the need to allow for transmission costs and line losses seems misplaced, especially when one looks at the example in the section-by-section analysis. When the nongenerating utility receives power from the QF, the only effect is that it reduces its purchases from the generating utility. The power is not "transmitted" to the generating utility only to be immediately retransmitted, and line losses may even be reduced. There is no physical transmission, only a legal one.

When this is the case, we suggest treating the nongenerating utility as an agent for the QF so that the QF may obtain the full avoided costs of the generating utility, less the administrative costs of accounting for the "transmission". Section 292.104(d) presently does not allow for this.

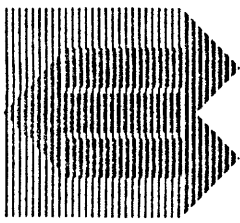
9. Implementation. Our only comment for subpart C is that case-by-case determinations be discouraged and, whenever possible, avoided. By so doing the regulatory burden upon QFs is minimized.

10. Interconnection costs. Section 292.108, as worded, does not seem to capture the notion of incremental interconnection costs very well. Even with the errata, we suggest rewording, somewhat along the lines of The Southern Company's comments which refer to costs "beyond the cost to the system for connecting a normal (i.e. no generation) customer." The language used does not restrict the excesses to interconnection costs but seems to include all costs, thus confusing the matter with avoided costs.

We suggest for section 292.108(b): ". . .and those interconnection costs which the purchasing utility would incur . . ." and for section 292.108(c): ". . . to such qualifying facility for any supranormal interconnection costs. . ."

11. Inconsistent use of "purchase" and "sale." Section 292.402(c)(1)(i) inverts the definition of "sale" in section 292.102(b)(3) and actually refers to the meaning of "purchase" in section 292.102(b)(2). For consistency the change should be made.

We hope these comments will prove useful in your adoption of a final rule.



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Department of Energy
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Comments Pertaining to Docket No. ERA-R-79-46

These comments address the proposed voluntary guideline for solar energy and renewable resources respecting the federal standards under PURPA.

We have gained experience concerning the problems associated with the solar/utility interface working on the National Photovoltaics Program under contracts from the Department of Energy and the Jet Propulsion Laboratory. We also have other experience, both regulatory and technical, from other projects run under our Utility Systems program at the Energy Laboratory.

In general, we support the emphasis upon marginal cost techniques which the proposed guideline contains. We do have two concerns with how this guideline might be applied.

1. Partial use of marginal cost techniques. Because the setting of rates using marginal cost techniques is still somewhat experimental, the guideline is necessarily vague on details. The absence of guideline on any of the specific standards in PURPA adds to the guideline's vagueness.

This vagueness results in a major issue not being faced: how to reconcile marginal cost pricing for some users but not others without discriminating against one class of users. In periods of rising costs those paying marginal rates (i.e., solar users) will bear the brunt of inflation. Hence, we think the proposed guidelines should address the interrelationship among rate-setting techniques for different classes as a potential source of discrimination against solar users.

2. Customer class. While we support the notion of different classes for customers of substantially different costs, we think the proposed guideline goes too far towards allowing such classes to exist. The effects of one particular "class" upon the utility's costs are not sharply definable; because the effects are unclear, the tendency to separate "similar" customers has greater potential for discrimination than it otherwise would. There is, in our opinion, little reason to distinguish the solar user from the user of, say, air conditioning in terms of consumption patterns and surges. We think that the rates facing solar users should vary with the type of service the solar user or any other user requires and not with the solar equipment or other appliances the customer has. While the criteria in the proposed guideline will inhibit excessive subclassification efforts, we think it should be worded to discourage such classification.

We hope these comments will be useful in adoption of a final guideline.

SEC. 2. FINDINGS.

16 USC 2601.

The Congress finds that the protection of the public health, safety, and welfare, the preservation of national security, and the proper exercise of congressional authority under the Constitution to regulate interstate commerce require—

- (1) a program providing for increased conservation of electric energy, increased efficiency in the use of facilities and resources by electric utilities, and equitable retail rates for electric consumers,
- (2) a program to improve the wholesale distribution of electric energy, the reliability of electric service, the procedures concerning consideration of wholesale rate applications before the Federal Energy Regulatory Commission, the participation of the public in matters before the Commission, and to provide other measures with respect to the regulation of the wholesale sale of electric energy,
- (3) a program to provide for the expeditious development of hydroelectric potential at existing small dams to provide needed hydroelectric power,
- (4) a program for the conservation of natural gas while insuring that rates to natural gas consumers are equitable,
- (5) a program to encourage the development of crude oil transportation systems, and
- (6) the establishment of certain other authorities as provided in title VI of this Act.

SEC. 3. DEFINITIONS.

16 USC 2602.

As used in this Act, except as otherwise specifically provided—

- (1) The term "antitrust laws" includes the Sherman Antitrust Act (15 U.S.C. 1 and following), the Clayton Act (15 U.S.C. 12 and following), the Federal Trade Commission Act (15 U.S.C. 14 and following), the Wilson Tariff Act (15 U.S.C. 8 and 9), and the Act of June 19, 1936, chapter 592 (15 U.S.C. 13, 13a, 13b, and 21A).
- (2) The term "class" means, with respect to electric consumers, any group of such consumers who have similar characteristics of electric energy use.
- (3) The term "Commission" means the Federal Energy Regulatory Commission.
- (4) The term "electric utility" means any person, State agency, or Federal agency, which sells electric energy.
- (5) The term "electric consumer" means any person, State agency, or Federal agency, to which electric energy is sold other than for purposes of resale.
- (6) The term "evidentiary hearing" means—
 - (A) in the case of a State agency, a proceeding which (i) is open to the public, (ii) includes notice to participants and an opportunity for such participants to present direct and rebuttal evidence and to cross-examine witnesses, (iii) includes a written decision, based upon evidence appearing in a written record of the proceeding, and (iv) is subject to judicial review;
 - (B) in the case of a Federal agency, a proceeding conducted as provided in sections 554, 556, and 557 of title 5, United States Code; and
 - (C) in the case of a proceeding conducted by any entity other than a State or Federal agency, a proceeding which con-

forms, to the extent appropriate, with the requirements of subparagraph (A).

(7) The term "Federal agency" means an executive agency (as defined in section 105 of title 5 of the United States Code).

(8) The term "load management technique" means any technique (other than a time-of-day or seasonal rate) to reduce the maximum kilowatt demand on the electric utility, including ripple or radio control mechanisms, and other types of interruptible electric service, energy storage devices, and load-limiting devices.

(9) The term "nonregulated electric utility" means any electric utility other than a State regulated electric utility.

(10) The term "rate" means (A) any price, rate, charge, or classification made, demanded, observed, or received with respect to sale of electric energy by an electric utility to an electric consumer, (B) any rule, regulation, or practice respecting any such rate, charge, or classification, and (C) any contract pertaining to the sale of electric energy to an electric consumer.

(11) The term "ratemaking authority" means authority to fix, modify, approve, or disapprove rates.

(12) The term "rate schedule" means the designation of the rates which an electric utility charges for electric energy.

(13) The term "sale" when used with respect to electric energy includes any exchange of electric energy.

(14) The term "Secretary" means the Secretary of Energy.

(15) The term "State" means a State, the District of Columbia, and Puerto Rico.

(16) The term "State agency" means a State, political subdivision thereof, and any agency or instrumentality of either.

(17) The term "State regulatory authority" means any State agency which has ratemaking authority with respect to the sale of electric energy by any electric utility (other than such State agency), and in the case of an electric utility with respect to which the Tennessee Valley Authority has ratemaking authority, such term means the Tennessee Valley Authority.

(18) The term "State regulated electric utility" means any electric utility with respect to which a State regulatory authority has ratemaking authority.

16 USC 2603.

SEC. 4. RELATIONSHIP TO ANTITRUST LAWS.

Nothing in this Act or in any amendment made by this Act affects—

(1) the applicability of the antitrust laws to any electric utility or gas utility (as defined in section 302), or

(2) any authority of the Secretary or of the Commission under any other provision of law (including the Federal Power Act and the Natural Gas Act) respecting unfair methods of competition or anticompetitive acts or practices.

16 USC 791a, 15
USC 717w.

TITLE I—RETAIL REGULATORY POLICIES FOR ELECTRIC UTILITIES

Subtitle A—General Provisions

16 USC 2611.

SEC. 101. PURPOSES.

The purposes of this title are to encourage—

- (1) conservation of energy supplied by electric utilities;
- (2) the optimization of the efficiency of use of facilities and resources by electric utilities; and
- (3) equitable rates to electric consumers.

SEC. 102. COVERAGE.

16 USC 2612.

(a) **VOLUME OF TOTAL RETAIL SALES.**—This title applies to each electric utility in any calendar year, and to each proceeding relating to each electric utility in such year, if the total sales of electric energy by such utility for purposes other than resale exceeded 500 million kilowatt-hours during any calendar year beginning after December 31, 1975, and before the immediately preceding calendar year.

(b) **EXCLUSION OF WHOLESALE SALES.**—The requirements of this title do not apply to the operations of an electric utility, or to proceedings respecting such operations, to the extent that such operations or proceedings relate to sales of electric energy for purposes of resale.

(c) **LIST OF COVERED UTILITIES.**—Before the beginning of each calendar year, the Secretary shall publish a list identifying each electric utility to which this title applies during such calendar year. Promptly after publication of such list each State regulatory authority shall notify the Secretary of each electric utility on the list for which such State regulatory authority has ratemaking authority.

SEC. 103. FEDERAL CONTRACTS.

16 USC 2613.

Notwithstanding the limitation contained in section 102(b), no contract between a Federal agency and any electric utility for the sale of electric energy by such Federal agency for resale which is entered into or renewed after the date of the enactment of this Act may contain any provision which will have the effect of preventing the implementation of any requirement of subtitle B or C. Any provision in any such contract which has such effect shall be null and void.

Subtitle B—Standards For Electric Utilities**SEC. 111. CONSIDERATION AND DETERMINATION RESPECTING CERTAIN RATEMAKING STANDARDS.**

16 USC 2621.

(a) **CONSIDERATION AND DETERMINATION.**—Each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall consider each standard established by subsection (d) and make a determination concerning whether or not it is appropriate to implement such standard to carry out the purposes of this title. For purposes of such consideration and determination in accordance with subsections (b) and (c), and for purposes of any review of such consideration and determination in any court in accordance with section 123, the purposes of this title supplement otherwise applicable State law. Nothing in this subsection prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to implement any such standard, pursuant to its authority under otherwise applicable State law.

(b) **PROCEDURAL REQUIREMENTS FOR CONSIDERATION AND DETERMINATION.**—(1) The consideration referred to in subsection (a) shall be made after public notice and hearing. The determination referred to in subsection (a) shall be—

Notice and hearing.

(A) in writing,

(B) based upon findings included in such determination and upon the evidence presented at the hearing, and

(C) available to the public.

(2) Except as otherwise provided in paragraph (1), in the second sentence of section 112(a), and in sections 121 and 122, the procedures for the consideration and determination referred to in subsection (a) shall be those established by the State regulatory authority or the nonregulated electric utility.

(c) **IMPLEMENTATION.**—(1) The State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility may, to the extent consistent with otherwise applicable State law—

(A) implement any such standard determined under subsection (a) to be appropriate to carry out the purposes of this title, or

(B) decline to implement any such standard.

(2) If a State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility declines to implement any standard established by subsection (d) which is determined under subsection (a) to be appropriate to carry out the purposes of this title, such authority or nonregulated electric utility shall state in writing the reasons therefor. Such statement of reasons shall be available to the public.

Federal
standards.

(d) **ESTABLISHMENT.**—The following Federal standards are hereby established:

(1) **COST OF SERVICE.**—Rates charged by any electric utility for providing electric service to each class of electric consumers shall be designed, to the maximum extent practicable, to reflect the costs of providing electric service to such class, as determined under section 115(a).

(2) **DECLINING BLOCK RATES.**—The energy component of a rate, or the amount attributable to the energy component in a rate, charged by any electric utility for providing electric service during any period to any class of electric consumers may not decrease as kilowatt-hour consumption by such class increases during such period except to the extent that such utility demonstrates that the costs to such utility of providing electric service to such class, which costs are attributable to such energy component, decrease as such consumption increases during such period.

(3) **TIME-OF-DAY RATES.**—The rates charged by any electric utility for providing electric service to each class of electric consumers shall be on a time-of-day basis which reflects the costs of providing electric service to such class of electric consumers at different times of the day unless such rates are not cost-effective with respect to such class, as determined under section 115(b).

(4) **SEASONAL RATES.**—The rates charged by an electric utility for providing electric service to each class of electric consumers shall be on a seasonal basis which reflects the costs of providing service to such class of consumers at different seasons of the year to the extent that such costs vary seasonally for such utility.

(5) **INTERRUPTIBLE RATES.**—Each electric utility shall offer each industrial and commercial electric consumer an interruptible rate which reflects the cost of providing interruptible service to the class of which such consumer is a member.

(6) **LOAD MANAGEMENT TECHNIQUES.**—Each electric utility shall offer to its electric consumers such load management techniques as the State regulatory authority (or the nonregulated electric utility) has determined will—

(A) be practicable and cost-effective, as determined under section 115(c),

(B) be reliable, and

(C) provide useful energy or capacity management advantages to the electric utility.

16 USC 2622.

SEC. 112. OBLIGATIONS TO CONSIDER AND DETERMINE.

(a) **REQUEST FOR CONSIDERATION AND DETERMINATION.**—Each State regulatory authority (with respect to each electric utility for which

it has ratemaking authority) and each nonregulated electric utility may undertake the consideration and make the determination referred to in section 111 with respect to any standard established by section 111(d) in any proceeding respecting the rates of the electric utility. Any participant or intervenor (including an intervenor referred to in section 121) in such a proceeding may request, and shall obtain, such consideration and determination in such proceeding. In undertaking such consideration and making such determination in any such proceeding with respect to the application to any electric utility of any standard established by section 111(d), a State regulatory authority (with respect to an electric utility for which it has ratemaking authority) or nonregulated electric utility may take into account in such proceeding—

(1) any appropriate prior determination with respect to such standard—

(A) which is made in a proceeding which takes place after the date of the enactment of this Act, or

(B) which was made before such date (or is made in a proceeding pending on such date) and complies, as provided in section 124, with the requirements of this title; and

(2) the evidence upon which such prior determination was based (if such evidence is referenced in such proceeding).

(b) **TIME LIMITATIONS.**—(1) Not later than 2 years after the date of the enactment of this Act, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall commence the consideration referred to in section 111, or set a hearing date for such consideration, with respect to each standard established by section 111(d).

(2) Not later than three years after the date of the enactment of this Act, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to each standard established by section 111(d).

(c) **FAILURE TO COMPLY.**—Each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall undertake the consideration, and make the determination, referred to in section 111 with respect to each standard established by section 111(d) in the first rate proceeding commenced after the date three years after the date of enactment of this Act respecting the rates of such utility if such State regulatory authority or nonregulated electric utility has not, before such date, complied with subsection (b)(2) with respect to such standard.

SEC. 113. ADOPTION OF CERTAIN STANDARDS.

16 USC 2623.

(a) **ADOPTION OF STANDARDS.**—Not later than two years after the date of the enactment of this Act, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall provide public notice and conduct a hearing respecting the standards established by subsection (b) and, on the basis of such hearing, shall—

(1) adopt the standards established by subsection (b) (other than paragraph (4) thereof) if, and to the extent, such authority or nonregulated electric utility determines that such adoption is appropriate to carry out the purposes of this title, is otherwise appropriate, and is consistent with otherwise applicable State law, and

(2) adopt the standard established by subsection (b)(4) if, and to the extent, such authority or nonregulated electric utility determines that such adoption is appropriate and consistent with otherwise applicable State law.

For purposes of any determination under paragraphs (1) or (2) and any review of such determination in any court in accordance with section 123, the purposes of this title supplement otherwise applicable State law. Nothing in this subsection prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any such standard, pursuant to its authority under otherwise applicable State law.

Federal
standards.

(b) **ESTABLISHMENT.**—The following Federal standards are hereby established:

(1) **MASTER METERING.**—To the extent determined appropriate under section 115(d), master metering of electric service in the case of new buildings shall be prohibited or restricted to the extent necessary to carry out the purposes of this title.

(2) **AUTOMATIC ADJUSTMENT CLAUSES.**—No electric utility may increase any rate pursuant to an automatic adjustment clause unless such clause meets the requirements of section 115(e).

(3) **INFORMATION TO CONSUMERS.**—Each electric utility shall transmit to each of its electric consumers information regarding rate schedules in accordance with the requirements of section 115(f).

(4) **PROCEDURES FOR TERMINATION OF ELECTRIC SERVICE.**—No electric utility may terminate electric service to any electric consumer except pursuant to procedures described in section 115(g).

(5) **ADVERTISING.**—No electric utility may recover from any person other than the shareholders (or other owners) of such utility any direct or indirect expenditure by such utility for promotional or political advertising as defined in section 115(h).

(c) **PROCEDURAL REQUIREMENTS.**—Each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility, within the two-year period specified in subsection (a), shall (1) adopt, pursuant to subsection (a), each of the standards established by subsection (b) or, (2) with respect to any such standard which is not adopted, such authority or nonregulated electric utility shall state in writing that it has determined not to adopt such standard, together with the reasons for such determination. Such statement of reasons shall be available to the public.

16 USC 2624.

SEC. 114. LIFELINE RATES.

(a) **LOWER RATES.**—No provision of this title prohibits a State regulatory authority (with respect to an electric utility for which it has ratemaking authority) or a nonregulated electric utility from fixing, approving, or allowing to go into effect a rate for essential needs (as defined by the State regulatory authority or by the nonregulated electric utility, as the case may be) of residential electric consumers which is lower than a rate under the standard referred to in section 111(d)(1).

(b) **DETERMINATION.**—If any State regulated electric utility or nonregulated electric utility does not have a lower rate as described in subsection (a) in effect two years after the date of the enactment of this Act, the State regulatory authority having ratemaking authority with respect to such State regulated electric utility or the nonregulated electric utility, as the case may be, shall determine, after an evidentiary hearing, whether such a rate should be implemented by such utility.

(c) **PRIOR PROCEEDINGS.**—Section 124 shall not apply to the requirements of this section.

SEC. 115. SPECIAL RULES FOR STANDARDS.

16 USC 2625.

(a) **COST OF SERVICE.**—In undertaking the consideration and making the determination under section 111 with respect to the standard concerning cost of service established by section 111(d)(1), the costs of providing electric service to each class of electric consumers shall, to the maximum extent practicable, be determined on the basis of methods prescribed by the State regulatory authority (in the case of a State regulated electric utility) or by the electric utility (in the case of a nonregulated electric utility). Such methods shall to the maximum extent practicable—

(1) permit identification of differences in cost-incurrence, for each such class of electric consumers, attributable to daily and seasonal time of use of service and

(2) permit identification of differences in cost-incurrence attributable to differences in customer demand, and energy components of cost. In prescribing such methods, such State regulatory authority or nonregulated electric utility shall take into account the extent to which total costs to an electric utility are likely to change if—

(A) additional capacity is added to meet peak demand relative to base demand; and

(B) additional kilowatt-hours of electric energy are delivered to electric consumers.

(b) **TIME-OF-DAY RATES.**—In undertaking the consideration and making the determination required under section 111 with respect to the standard for time-of-day rates established by section 111(d)(3), a time-of-day rate charged by an electric utility for providing electric service to each class of electric consumers shall be determined to be cost-effective with respect to each such class if the long-run benefits of such rate to the electric utility and its electric consumers in the class concerned are likely to exceed the metering costs and other costs associated with the use of such rates.

(c) **LOAD MANAGEMENT TECHNIQUES.**—In undertaking the consideration and making the determination required under section 111 with respect to the standard for load management techniques established by section 111(d)(6), a load management technique shall be determined, by the State regulatory authority or nonregulated electric utility, to be cost-effective if—

(1) such technique is likely to reduce maximum kilowatt demand on the electric utility, and

(2) the long-run cost-savings to the utility of such reduction are likely to exceed the long-run costs to the utility associated with implementation of such technique.

(d) **MASTER METERING.**—Separate metering shall be determined appropriate for any new building for purposes of section 113(b)(1) if—

(1) there is more than one unit in such building,

(2) the occupant of each such unit has control over a portion of the electric energy used in such unit, and

(3) with respect to such portion of electric energy used in such unit, the long-run benefits to the electric consumers in such building exceed the costs of purchasing and installing separate meters in such building.

(e) **AUTOMATIC ADJUSTMENT CLAUSES.**—(1) An automatic adjustment clause of an electric utility meets the requirements of this subsection if—

(A) such clause is determined, not less often than every four years, by the State regulatory authority (with respect to an electric utility for which it has ratemaking authority) or by the electric utility (in the case of a nonregulated electric utility), after an evidentiary hearing, to provide incentives for efficient use of resources (including incentives for economical purchase and use of fuel and electric energy) by such electric utility, and

(B) such clause is reviewed not less often than every two years, in the manner described in paragraph (2), by the State regulatory authority having ratemaking authority with respect to such utility (or by the electric utility in the case of a nonregulated electric utility), to insure the maximum economies in those operations and purchases which affect the rates to which such clause applies.

(2) In making a review under subparagraph (B) of paragraph (1) with respect to an electric utility, the reviewing authority shall examine and, if appropriate, cause to be audited the practices of such electric utility relating to costs subject to an automatic adjustment clause, and shall require such reports as may be necessary to carry out such review (including a disclosure of any ownership or corporate relationship between such electric utility and the seller to such utility of fuel, electric energy, or other items).

Definition.

(3) As used in this subsection and section 113(b), the term “automatic adjustment clause” means a provision of a rate schedule which provides for increases or decreases (or both), without prior hearing, in rates reflecting increases or decreases (or both) in costs incurred by an electric utility. Such term does not include an interim rate which takes effect subject to a later determination of the appropriate amount of the rate.

(f) **INFORMATION TO CONSUMERS.**—(1) For purposes of the standard for information to consumers established by section 113(b)(3), each electric utility shall transmit to each of its electric consumers a clear and concise explanation of the existing rate schedule and any rate schedule applied for (or proposed by a nonregulated electric utility) applicable to such consumer. Such statement shall be transmitted to each such consumer—

(A) not later than sixty days after the date of commencement of service to such consumer or ninety days after the standard established by section 113(b)(3) is adopted with respect to such electric utility, whichever last occurs, and

(B) not later than thirty days (sixty days in the case of an electric utility which uses a bimonthly billing system) after such utility’s application for any change in a rate schedule applicable to such consumer (or proposal of such a change in the case of a nonregulated utility).

(2) For purposes of the standard for information to consumers established by section 113(b)(3), each electric utility shall transmit to each of its electric consumers not less frequently than once each year—

(A) a clear and concise summary of the existing rate schedules applicable to each of the major classes of its electric consumers for which there is a separate rate, and

(B) an identification of any classes whose rates are not summarized.

Such summary may be transmitted together with such consumer’s billing or in such other manner as the State regulatory authority or nonregulated electric utility deems appropriate.

(3) For purposes of the standard for information to consumers established by section 113(b)(3), each electric utility, on request of an electric consumer of such utility, shall transmit to such consumer a clear and concise statement of the actual consumption (or degree-day adjusted consumption) of electric energy by such consumer for each billing period during the prior year (unless such consumption data is not reasonably ascertainable by the utility).

(g) PROCEDURES FOR TERMINATION OF ELECTRIC SERVICE.—The procedures for termination of service referred to in section 113(b)(4) are procedures prescribed by the State regulatory authority (with respect to electric utilities for which it has ratemaking authority) or by the nonregulated electric utility which provide that—

(1) no electric service to an electric consumer may be terminated unless reasonable prior notice (including notice of rights and remedies) is given to such consumer and such consumer has a reasonable opportunity to dispute the reasons for such termination, and

(2) during any period when termination of service to an electric consumer would be especially dangerous to health, as determined by the State regulatory authority (with respect to an electric utility for which it has ratemaking authority) or nonregulated electric utility, and such consumer establishes that—

(A) he is unable to pay for such service in accordance with the requirements of the utility's billing, or

(B) he is able to pay for such service but only in installments,

such service may not be terminated.

Such procedures shall take into account the need to include reasonable provisions for elderly and handicapped consumers.

(h) ADVERTISING.—(1) For purposes of this section and section 113 (b)(5)—

(A) The term "advertising" means the commercial use, by an electric utility, of any media, including newspaper, printed matter, radio, and television, in order to transmit a message to a substantial number of members of the public or to such utility's electric consumers.

(B) The term "political advertising" means any advertising for the purpose of influencing public opinion with respect to legislative, administrative, or electoral matters, or with respect to any controversial issue of public importance.

(C) The term "promotional advertising" means any advertising for the purpose of encouraging any person to select or use the service or additional service of an electric utility or the selection or installation of any appliance or equipment designed to use such utility's service.

(2) For purposes of this subsection and section 113(b)(5), the terms "political advertising" and "promotional advertising" do not include—

(A) advertising which informs electric consumers how they can conserve energy or can reduce peak demand for electric energy,

(B) advertising required by law or regulation, including advertising required under part 1 of title II of the National Energy Conservation Policy Act,

(C) advertising regarding service interruptions, safety measures, or emergency conditions,

(D) advertising concerning employment opportunities with such utility,

Definitions.

Post, p. 3209.

(E) advertising which promotes the use of energy efficient appliances, equipment or services, or

(F) any explanation or justification of existing or proposed rate schedules, or notifications of hearings thereon.

16 USC 2626.

SEC. 116. REPORTS RESPECTING STANDARDS.

(a) **STATE AUTHORITIES AND NONREGULATED UTILITIES.**—Not later than one year after the date of the enactment of this Act and annually thereafter for ten years, each State regulatory authority (with respect to each State regulated electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall report to the Secretary, in such manner as the Secretary shall prescribe, respecting its consideration of the standards established by sections 111(d) and 113(b). Such report shall include a summary of the determinations made and actions taken with respect to each such standard on a utility-by-utility basis.

(b) **SECRETARY.**—Not later than eighteen months after the date of the enactment of this Act and annually thereafter for ten years, the Secretary shall submit a report to the President and the Congress containing—

- (1) a summary of the reports submitted under subsection (a),
- (2) his analysis of such reports, and
- (3) his actions under this title, and his recommendations for such further Federal actions, including any legislation, regarding retail electric utility rates (and other practices) as may be necessary to carry out the purposes of this title.

16 USC 2627.

SEC. 117. RELATIONSHIP TO STATE LAW.

(a) **REVENUE AND RATE OF RETURN.**—Nothing in this title shall authorize or require the recovery by an electric utility of revenues, or of a rate of return, in excess of, or less than, the amount of revenues or the rate of return determined to be lawful under any other provision of law.

(b) **STATE AUTHORITY.**—Nothing in this title prohibits any State regulatory authority or nonregulated electric utility from adopting, pursuant to State law, any standard or rule affecting electric utilities which is different from any standard established by this subtitle.

(c) **FEDERAL AGENCIES.**—With respect to any electric utility which is a Federal agency, and with respect to the Tennessee Valley Authority when it is treated as a State regulatory authority as provided in section 3(17), any reference in section 111 or 113 to State law shall be treated as a reference to Federal law.

TITLE II—CERTAIN FEDERAL ENERGY REGULATORY COMMISSION AND DEPARTMENT OF ENERGY AUTHORITIES

SEC. 201. DEFINITIONS.

16 USC 796.

Section 3 of the Federal Power Act is amended by inserting the following before the period at the end thereof:

“(17) (A) ‘small power production facility’ means a facility which—

“(i) produces electric energy solely by the use, as a primary energy source, of biomass, waste, renewable resources, or any combination thereof; and

“(ii) has a power production capacity which, together with any other facilities located at the same site (as determined by the Commission), is not greater than 80 megawatts;

“(B) ‘primary energy source’ means the fuel or fuels used for the generation of electric energy, except that such term does not include, as determined under rules prescribed by the Commission, in consultation with the Secretary of Energy—

“(i) the minimum amounts of fuel required for ignition, startup, testing, flame stabilization, and control uses, and

“(ii) the minimum amounts of fuel required to alleviate or prevent—

“(I) unanticipated equipment outages, and

“(II) emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages;

“(C) ‘qualifying small power production facility’ means a small power production facility—

“(i) which the Commission determines, by rule, meets such requirements (including requirements respecting fuel use, fuel

efficiency, and reliability) as the Commission may, by rule, prescribe; and

“(ii) which is owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities);

“(D) ‘qualifying small power producer’ means the owner or operator of a qualifying small power production facility;

“(18) (A) ‘cogeneration facility’ means a facility which produces—

“(i) electric energy, and

“(ii) steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes;

“(B) ‘qualifying cogeneration facility’ means a cogeneration facility which—

“(i) the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel efficiency) as the Commission may, by rule, prescribe; and

“(ii) is owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities);

“(C) ‘qualifying cogenerator’ means the owner or operator of a qualifying cogeneration facility;

“(19) ‘Federal power marketing agency’ means any agency or instrumentality of the United States (other than the Tennessee Valley Authority) which sells electric energy;

“(20) ‘evidentiary hearings’ and ‘evidentiary proceeding’ mean a proceeding conducted as provided in sections 554, 556, and 557 of title 5, United States Code;

“(21) ‘State regulatory authority’ has the same meaning as the term ‘State commission’, except that in the case of an electric utility with respect to which the Tennessee Valley Authority has ratemaking authority (as defined in section 3 of the Public Utility Regulatory Policies Act of 1978), such term means the Tennessee Valley Authority;

“(22) ‘electric utility’ means any person or State agency which sells electric energy; such term includes the Tennessee Valley Authority, but does not include any Federal power marketing agency”.

SEC. 202. INTERCONNECTION.

Part II of the Federal Power Act is amended by adding the following new section at the end thereof:

“CERTAIN INTERCONNECTION AUTHORITY

“Sec. 210. (a) (1) Upon application of any electric utility, Federal power marketing agency, qualifying cogenerator, or qualifying small power producer, the Commission may issue an order requiring— 16 USC 824i.

“(A) the physical connection of any cogeneration facility, any small power production facility, or the transmission facilities of any electric utility, with the facilities of such applicant,

“(B) such action as may be necessary to make effective any physical connection described in subparagraph (A), which physical connection is ineffective for any reason, such as inadequate size, poor maintenance, or physical unreliability,

“(C) such sale or exchange of electric energy or other coordination, as may be necessary to carry out the purposes of any order under subparagraph (A) or (B), or

“(D) such increase in transmission capacity as may be necessary to carry out the purposes of any order under subparagraph (A) or (B).

“(2) Any State regulatory authority may apply to the Commission for an order for any action referred to in subparagraph (A), (B), (C), or (D) of paragraph (1). No such order may be issued by the Commission with respect to a Federal power marketing agency upon application of a State regulatory authority.

“(b) Upon receipt of an application under subsection (a), the Commission shall—

“(1) issue notice to each affected State regulatory authority, each affected electric utility, each affected Federal power marketing agency, each affected owner or operator of a cogeneration facility or of a small power production facility, and to the public.

“(2) afford an opportunity for an evidentiary hearing, and

“(3) make a determination with respect to the matters referred to in subsection (c).

“(c) No order may be issued by the Commission under subsection (a) unless the Commission determines that such order—

“(1) is in the public interest,

“(2) would—

“(A) encourage overall conservation of energy or capital,

“(B) optimize the efficiency of use of facilities and resources, or

“(C) improve the reliability of any electric utility system or Federal power marketing agency to which the order applies, and

“(3) meets the requirements of section 212.

“(d) The Commission may, on its own motion, after compliance with the requirements of paragraphs (1) and (2) of subsection (b), issue an order requiring any action described in subsection (a) (1) if the Commission determines that such order meets the requirements of subsection (c). No such order may be issued upon the Commission's own motion with respect to a Federal power marketing agency.

“(e) (1) As used in this section, the term ‘facilities’ means only facilities used for the generation or transmission of electric energy.

“(2) With respect to an order issued pursuant to an application of a qualifying cogenerator or qualifying small power producer under subsection (a) (1), the term ‘facilities of such applicant’ means the qualifying cogeneration facilities or qualifying small power production facilities of the applicant, as specified in the application. With respect to an order issued pursuant to an application under subsection (a) (2), the term ‘facilities of such applicant’ means the qualifying cogeneration facilities, qualifying small power production facilities, or the transmission facilities of an electric utility, as specified in the application. With respect to an order issued by the Commission on its own motion under subsection (d), such term means the qualifying cogeneration facilities, qualifying small power production facilities, or the transmission facilities of an electric utility, as specified in the proposed order.”

SEC. 203. WHEELING.

Part II of the Federal Power Act, as amended by section 202 of this Act, is further amended by adding the following new section at the end thereof:

Post, p. 3138.

Definitions.

"CERTAIN WHEELING AUTHORITY

"SEC. 211. (a) Any electric utility or Federal power marketing agency may apply to the Commission for an order under this subsection requiring any other electric utility to provide transmission services to the applicant (including any enlargement of transmission capacity necessary to provide such services). Upon receipt of such application, after public notice and notice to each affected State regulatory authority, each affected electric utility, and each affected Federal power marketing agency, and after affording an opportunity for an evidentiary hearing, the Commission may issue such order if it finds that such order—

"(1) is in the public interest,

"(2) would—

"(A) conserve a significant amount of energy,

"(B) significantly promote the efficient use of facilities and resources, or

"(C) improve the reliability of any electric utility system to which the order applies, and

"(3) meets the requirements of section 212.

"(b) Any electric utility, or Federal power marketing agency, which purchases electric energy for resale from any other electric utility may apply to the Commission for an order under this subsection requiring such other electric utility to provide transmission services to the applicant (including any increase in transmission capacity necessary to provide such services). Upon receipt of an application under this subsection, after public notice and notice to each affected State regulatory authority, each affected electric utility, and each affected Federal power marketing agency, and after affording an opportunity for an evidentiary hearing, the Commission may issue such an order if the Commission determines that—

"(1) such other electric utility has given actual or constructive notice that it is unwilling or unable to provide electric service to the applicant and has been requested by the applicant to provide the transmission services requested in the application under this subsection, and

"(2) such order meets the requirements of section 212.

"(c) (1) No order may be issued under subsection (a) unless the Commission determines that such order would reasonably preserve existing competitive relationships.

"(2) No order may be issued under subsection (a) or (b) which requires the electric utility subject to the order to transmit, during any period, an amount of electric energy which replaces any amount of electric energy—

"(A) required to be provided to such applicant pursuant to a contract during such period, or

"(B) currently provided to the applicant by the utility subject to the order pursuant to a rate schedule on file during such period with the Commission.

"(3) No order may be issued under the authority of subsection (a) or (b) which is inconsistent with any State law which governs the retail marketing areas of electric utilities.

"(4) No order may be issued under subsection (a) or (b) which provides for the transmission of electric energy directly to an ultimate consumer.

"(d) (1) Any electric utility ordered under subsection (a) or (b) to provide transmission services may apply to the Commission for an

order permitting such electric utility to cease providing all, or any portion of, such services. After public notice, notice to each affected State regulatory authority, each affected Federal power marketing agency, and each affected electric utility, and after an opportunity for an evidentiary hearing, the Commission shall issue an order terminating or modifying the order issued under subsection (a) or (b), if the electric utility providing such transmission services has demonstrated, and the Commission has found, that—

Infra.

“(A) due to changed circumstances, the requirements applicable, under this section and section 212, to the issuance of an order under subsection (a) or (b) are no longer met, or

“(B) any transmission capacity of the utility providing transmission services under such order which was, at the time such order was issued, in excess of the capacity necessary to serve its own customers is no longer in excess of the capacity necessary for such purposes.

No order shall be issued under this subsection pursuant to a finding under subparagraph (A) unless the Commission finds that such order is in the public interest.

“(2) Any order issued under this subsection terminating or modifying an order issued under subsection (a) or (b) shall—

“(A) provide for any appropriate compensation, and

“(B) provide the affected electric utilities adequate opportunity and time to—

“(i) make suitable alternative arrangements for any transmission services terminated or modified, and

“(ii) insure that the interests of ratepayers of such utilities are adequately protected.

“(3) No order may be issued under this subsection terminating or modifying any order issued under subsection (a) or (b) if the order under subsection (a) or (b) includes terms and conditions agreed upon by the parties which—

“(A) fix a period during which transmission services are to be provided under the order under subsection (a) or (b), or

“(B) otherwise provide procedures or methods for terminating or modifying such order (including, if appropriate, the return of the transmission capacity when necessary to take into account an increase, after the issuance of such order, in the needs of the electric utility subject to such order for transmission capacity).

“(e) As used in this section, the term ‘facilities’ means only facilities used for the generation or transmission of electric energy.”

SEC. 204. GENERAL PROVISIONS REGARDING CERTAIN INTERCONNECTION AND WHEELING AUTHORITY.

16 USC 824.

(a) **RESTRICTIONS AND OTHER PROVISIONS.**—Part II of the Federal Power Act, as amended by sections 202 and 203 of this Act, is further amended by adding the following new section at the end thereof:

“PROVISIONS REGARDING CERTAIN ORDERS REQUIRING INTERCONNECTION OR WHEELING

16 USC 824k.
Ante, pp. 3135,
3137.

“SEC. 212. (a) No order may be issued by the Commission under section 210 or subsection (a) or (b) of section 211 unless the Commission determines that such order—

“(1) is not likely to result in a reasonably ascertainable uncompensated economic loss for any electric utility, qualifying cogenerator, or qualifying small power producer, as the case may be, affected by the order;

"(2) will not place an undue burden on an electric utility, qualifying cogenerator, or qualifying small power producer, as the case may be, affected by the order;

"(3) will not unreasonably impair the reliability of any electric utility affected by the order; and

"(4) will not impair the ability of any electric utility affected by the order to render adequate service to its customers.

The determination under paragraph (1) shall be based upon a showing of the parties. The Commission shall have no authority under section 210 or 211 to compel the enlargement of generating facilities.

"(b) No order may be issued under section 210 or subsection (a) or (b) of section 211 unless the applicant for such order demonstrates that he is ready, willing, and able to reimburse the party subject to such order for—

"(1) in the case of an order under section 210, such party's share of the reasonably anticipated costs incurred under such order, and

"(2) in the case of an order under subsection (a) or (b) of section 211—

"(A) the reasonable costs of transmission services, including the costs of any enlargement of transmission facilities, and

"(B) a reasonable rate of return on such costs, as appropriate, as determined by the Commission.

"(c) (1) Before issuing an order under section 210 or subsection (a) or (b) of section 211, the Commission shall issue a proposed order and set a reasonable time for parties to the proposed interconnection or transmission order to agree to terms and conditions under which such order is to be carried out, including the apportionment of costs between them and the compensation or reimbursement reasonably due to any of them. Such proposed order shall not be reviewable or enforceable in any court. The time set for such parties to agree to such terms and conditions may be shortened if the Commission determines that delay would jeopardize the attainment of the purposes of any proposed order. Any terms and conditions agreed to by the parties shall be subject to the approval of the Commission.

"(2) (A) If the parties agree as provided in paragraph (1) within the time set by the Commission and the Commission approves such agreement, the terms and conditions shall be included in the final order. In the case of an order under section 210, if the parties fail to agree within the time set by the Commission or if the Commission does not approve any such agreement, the Commission shall prescribe such terms and conditions and include such terms and conditions in the final order.

"(B) In the case of any order applied for under section 211, if the parties fail to agree within the time set by the Commission, the Commission shall prescribe such terms and conditions in the final order.

"(d) If the Commission does not issue any order applied for under section 210 or 211, the Commission shall, by order, deny such application and state the reasons for such denial.

"(e) No provision of section 210 or 211 shall be treated—

"(1) as requiring any person to utilize the authority of such section 210 or 211 in lieu of any other authority of law, or

"(2) as limiting, impairing, or otherwise affecting any authority of the Commission under any other provision of law.

"(f) (1) No order under section 210 or 211 requiring the Tennessee Valley Authority (hereinafter in this subsection referred to as the

Ante, pp. 3135,
3137.

'TVA') to take any action shall take effect for 60 days following the date of issuance of the order. Within 60 days following the issuance by the Commission of any order under section 210 or of section 211 requiring the TVA to enter into any contract for the sale or delivery of power, the Commission may on its own motion initiate, or upon petition of any aggrieved person shall initiate, an evidentiary hearing to determine whether or not such sale or delivery would result in violation of the third sentence of section 15d(a) of the Tennessee Valley Authority Act of 1933 (16 U.S.C. 831n-4), hereinafter in this subsection referred to as the TVA Act.

"(2) Upon initiation of any evidentiary hearing under paragraph (1), the Commission shall give notice thereof to any applicant who applied for and obtained the order from the Commission, to any electric utility or other entity subject to such order, and to the public, and shall promptly make the determination referred to in paragraph (1). Upon initiation of such hearing, the Commission shall stay the effectiveness of the order under section 210 or 211 until whichever of the following dates is applicable—

Ante, pp. 2135,
2137.

"(A) the date on which there is a final determination (including any judicial review thereof under paragraph (3)) that no such violation would result from such order, or

"(B) the date on which a specific authorization of the Congress (within the meaning of the third sentence of section 15d(a) of the TVA Act) takes effect.

"(3) Any determination under paragraph (1) shall be reviewable only in the appropriate court of the United States upon petition filed by any aggrieved person or municipality within 60 days after such determination, and such court shall have jurisdiction to grant appropriate relief. Any applicant who applied for and obtained the order under section 210 or 211, and any electric utility or other entity subject to such order shall have the right to intervene in any such proceeding in such court. Except for review by such court (and any appeal or other review by an appellate court of the United States), no court shall have jurisdiction to consider any action brought by any person to enjoin the carrying out of any order of the Commission under section 210 or section 211 requiring the TVA to take any action on the grounds that such action requires a specific authorization of the Congress pursuant to the third sentence of section 15d(a) of the TVA Act."

16 USC 824.

(b) APPLICATION OF FEDERAL POWER ACT.—(1) Section 201(b) of such Act is amended by inserting "(1)" after "(b)", by inserting "except as provided in paragraph (2)" after "but" in the first sentence thereof, and by adding the following at the end thereof:

Ante, p. 3138.

"(2) The provisions of sections 210, 211, and 212 shall apply to the entities described in such provisions, and such entities shall be subject to the jurisdiction of the Commission for purposes of carrying out such provisions and for purposes of applying the enforcement authorities of this Act with respect to such provisions. Compliance with any order of the Commission under the provisions of section 210 or 211, shall not make an electric utility or other entity subject to the jurisdiction of the Commission for any purposes other than the purposes specified in the preceding sentence."

(2) Section 201(e) of such Act is amended by inserting "(other than facilities subject to such jurisdiction solely by reason of section 210, 211, or 212)" after "under this part".

16 USC 824a-3. SEC. 210. COGENERATION AND SMALL POWER PRODUCTION.

(a) **COGENERATION AND SMALL POWER PRODUCTION RULES.**—Not later than 1 year after the date of enactment of this Act, the Commission shall prescribe, and from time to time thereafter revise, such rules as it determines necessary to encourage cogeneration and small power production which rules require electric utilities to offer to—

- (1) sell electric energy to qualifying cogeneration facilities and qualifying small power production facilities and
- (2) purchase electric energy from such facilities.

Such rules shall be prescribed, after consultation with representatives of Federal and State regulatory agencies having ratemaking authority for electric utilities, and after public notice and a reasonable opportunity for interested persons (including State and Federal agencies) to submit oral as well as written data, views, and arguments. Such rules shall include provisions respecting minimum reliability of qualifying cogeneration facilities and qualifying small power production facilities (including reliability of such facilities during emergencies) and rules respecting reliability of electric energy service to be available to such facilities from electric utilities during emergencies. Such rules may not authorize a qualifying cogeneration facility or qualifying small power production facility to make any sale for purposes other than resale.

(b) **RATES FOR PURCHASES BY ELECTRIC UTILITIES.**—The rules prescribed under subsection (a) shall insure that, in requiring any electric utility to offer to purchase electric energy from any qualifying cogeneration facility or qualifying small power production facility, the rates for such purchase—

- (1) shall be just and reasonable to the electric consumers of the electric utility and in the public interest, and
- (2) shall not discriminate against qualifying cogenerators or qualifying small power producers.

No such rule prescribed under subsection (a) shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy.

(c) **RATES FOR SALES BY UTILITIES.**—The rules prescribed under subsection (a) shall insure that, in requiring any electric utility to offer to sell electric energy to any qualifying cogeneration facility or qualifying small power production facility, the rates for such sale—

- (1) shall be just and reasonable and in the public interest, and

(2) shall not discriminate against the qualifying cogenerators or qualifying small power producers.

(d) DEFINITION.—For purposes of this section, the term “incremental cost of alternative electric energy” means, with respect to electric energy purchased from a qualifying cogenerator or qualifying small power producer, the cost to the electric utility of the electric energy which, but for the purchase from such cogenerator or small power producer, such utility would generate or purchase from another source.

(e) EXEMPTIONS.—(1) Not later than 1 year after the date of enactment of this Act and from time to time thereafter, the Commission shall, after consultation with representatives of State regulatory authorities, electric utilities, owners of cogeneration facilities and owners of small power production facilities, and after public notice and a reasonable opportunity for interested persons (including State and Federal agencies) to submit oral as well as written data, views, and arguments, prescribe rules under which qualifying cogeneration facilities and qualifying small power production facilities are exempted in whole or part from the Federal Power Act, from the Public Utility Holding Company Act, from State laws and regulations respecting the rates, or respecting the financial or organizational regulation, of electric utilities, or from any combination of the foregoing, if the Commission determines such exemption is necessary to encourage cogeneration and small power production.

Rules.

16 USC 791a.
15 USC 79.

(2) No qualifying small power production facility which has a power production capacity which, together with any other facilities located at the same site (as determined by the Commission), exceeds 30 megawatts may be exempted under rules under paragraph (1) from any provision of law or regulation referred to in paragraph (1), except that any qualifying small power production facility which produces electric energy solely by the use of biomass as a primary energy source, may be exempted by the Commission under such rules from the Public Utility Holding Company Act and from State laws and regulations referred to in such paragraph (1).

(3) No qualifying small power production facility or qualifying cogeneration facility may be exempted under this subsection from—

(A) any State law or regulation in effect in a State pursuant to subsection (f),

(B) the provisions of section 210, 211, or 212 of the Federal Power Act or the necessary authorities for enforcement of any such provision under the Federal Power Act, or

Ante, pp. 3135,
3137, 3138.

(C) any license or permit requirement under part I of the Federal Power Act, any provision under such Act related to such a license or permit requirement, or the necessary authorities for enforcement of any such requirement.

(f) IMPLEMENTATION OF RULES FOR QUALIFYING COGENERATION AND QUALIFYING SMALL POWER PRODUCTION FACILITIES.—(1) Beginning on or before the date one year after any rule is prescribed by the Commission under subsection (a) or revised under such subsection, each State regulatory authority shall, after notice and opportunity for public hearing, implement such rule (or revised rule) for each electric utility for which it has ratemaking authority.

Notice and
hearing.

(2) Beginning on or before the date one year after any rule is prescribed by the Commission under subsection (a) or revised under such subsection, each nonregulated electric utility shall, after notice and opportunity for public hearing, implement such rule (or revised rule).

Notice and
hearing.

(g) JUDICIAL REVIEW AND ENFORCEMENT.—(1) Judicial review may

be obtained respecting any proceeding conducted by a State regulatory authority or nonregulated electric utility for purposes of implementing any requirement of a rule under subsection (a) in the same manner, and under the same requirements, as judicial review may be obtained under section 123 in the case of a proceeding to which section 123 applies.

(2) Any person (including the Secretary) may bring an action against any electric utility, qualifying small power producer, or qualifying cogenerator to enforce any requirement established by a State regulatory authority or nonregulated electric utility pursuant to subsection (f). Any such action shall be brought only in the manner, and under the requirements, as provided under section 123 with respect to an action to which section 123 applies.

16 USC 824.

(h) COMMISSION ENFORCEMENT.—(1) For purposes of enforcement of any rule prescribed by the Commission under subsection (a) with respect to any operations of an electric utility, a qualifying cogeneration facility or a qualifying small power production facility which are subject to the jurisdiction of the Commission under part II of the Federal Power Act, such rule shall be treated as a rule under the Federal Power Act. Nothing in subsection (g) shall apply to so much of the operations of an electric utility, a qualifying cogeneration facility or a qualifying small power production facility as are subject to the jurisdiction of the Commission under part II of the Federal Power Act.

16 USC 791a.

(2)(A) The Commission may enforce the requirements of subsection (f) against any State regulatory authority or nonregulated electric utility. For purposes of any such enforcement, the requirements of subsection (f)(1) shall be treated as a rule enforceable under the Federal Power Act. For purposes of any such action, a State regulatory authority or nonregulated electric utility shall be treated as a person within the meaning of the Federal Power Act. No enforcement action may be brought by the Commission under this section other than—

(i) an action against the State regulatory authority or nonregulated electric utility for failure to comply with the requirements of subsection (f) or

(ii) an action under paragraph (1).

(B) Any electric utility, qualifying cogenerator, or qualifying small power producer may petition the Commission to enforce the requirements of subsection (f) as provided in subparagraph (A) of this paragraph. If the Commission does not initiate an enforcement action under subparagraph (A) against a State regulatory authority or nonregulated electric utility within 60 days following the date on which a petition is filed under this subparagraph with respect to such authority, the petitioner may bring an action in the appropriate United States district court to require such State regulatory authority or nonregulated electric utility to comply with such requirements, and such court may issue such injunctive or other relief as may be appropriate. The Commission may intervene as a matter of right in any such action.

(i) FEDERAL CONTRACTS.—No contract between a Federal agency and any electric utility for the sale of electric energy by such Federal agency for resale which is entered into after the date of the enactment of this Act may contain any provision which will have the effect of preventing the implementation of any rule under this section with respect to such utility. Any provision in any such contract which has such effect shall be null and void.

(j) DEFINITIONS.—For purposes of this section, the terms “small power production facility”, “qualifying small power production facility”, “qualifying small power producer”, “primary energy source”, “cogeneration facility”, “qualifying cogeneration facility”, and “qualifying cogenerator” have the respective meanings provided for such terms under section 3 (17) and (18) of the Federal Power Act.

16 USC 796.

[18 CFR Part 292]

[Docket No. RM79-54]

Proposed Regulations Providing for Qualification of Small Power Production and Cogeneration Facilities Under Section 201 of the Public Utility Regulatory Policies Act of 1978

Issued June 27, 1979.

AGENCY: Federal Energy Regulatory Commission.**ACTION:** Notice of Proposed Rulemaking.**SUMMARY:** These regulations establish rules under which small power production and cogeneration facilities may be certified as qualifying facilities under Section 201 of the Public Utility Regulatory Policies Act of 1978.**DATES:** Comments by August 1, 1979.**ADDRESS:** All comments to: Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426 (Reference Docket No. RM79-54).**FOR FURTHER INFORMATION CONTACT:**

Adam Wenner, Office of the General Counsel, Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426 (202) 275-0423.

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Issued June 27, 1979.

Section 201 of the Public Utilities Regulatory Policies Act of 1978 (PURPA) mandates that the Commission prescribe rules under which small power production facilities and cogeneration facilities can obtain "qualifying" status.

Section 201 of PURPA¹ defines a "small power production facility" as a facility which:

(1) produces electric energy solely by the use, as a primary energy source of

biomass, waste, renewable resources, or any combination thereof; and

(2) has a power production capacity which, together with any other facilities located at the same site (as determined by the Commission) is not greater than 80 megawatts.

A cogeneration facility is defined as a facility which produces electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes.²

A cogeneration or small power production facility may be deemed "qualified" if it is owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration or small power production facilities), and if it meets such requirements as the Commission may prescribe, such as fuel use, fuel efficiency, reliability and minimum size.

In this notice of proposed rulemaking the Commission sets forth proposed requirements for qualifying cogeneration and small power production facilities and procedures by which such facilities may obtain qualification. Subsequent rulemaking proceedings will implement the provisions of Section 210 of PURPA.

A qualifying facility may be exempted from the Federal Power Act, the Public Utility Holding Company Act, and from State laws and regulations. Section 210(a) of PURPA requires that the Commission prescribe such rules as it finds necessary to encourage cogeneration and small power production, including rules requiring electric utilities³ to offer to sell electric energy to and purchase electric energy from qualifying small power production and cogeneration facilities.

Under Section 210(b), the Commission's rules must insure that, in requiring any electric utility to purchase electric energy from qualifying facilities, the rates for such a purchase must be "just and reasonable to the electric consumer of the electric utility", "in the public interest," non-discriminating against qualifying facilities, and shall not exceed the incremental cost to the electric utility of alternative sources. Finally, under Section 206(c)(3) of the Natural Gas Policy Act of 1978 (NGPA), the Commission may exempt qualifying cogeneration facilities from the

¹Section 3(18)(A) of the Federal Power Act.

²Section 3(22) of the amended Federal Power Act defines "electric utility" as "any person or State agency which sells electric energy; such term includes the Tennessee Valley Authority, but does not include any Federal power marketing agency." The definition includes intrastate utilities which are not "public utilities" under Section 201(b) of the Federal Power Act.

incremental pricing provision of the NGPA.

Purpose of the Proposed Requirements and Procedures

The Commission believes that the intent of § 201 and § 210 of PURPA is to encourage the development or better utilization of energy resources through cogeneration and small power production. These provisions of PURPA attempt, among other purposes, to assure entrepreneurial opportunities to sell electricity to electric utilities, when such electricity is generated through use of renewable energy sources or better use of industrial process heat. They reflect a belief that improved energy resource utilization may be accomplished with projects based on unconventional technologies or using small unit sizes which might not be developed by electric utilities. The provisions are not intended, however, to require the rate payers of a utility to subsidize cogenerators or small power producers.

It is the commission's view that an objective of the qualifying requirements is to limit the benefits of the qualifying designation to facilities which represent serious and significant efforts to improve energy resource utilization. Moreover, qualifying facilities must be suitable for interconnected operation with electric utility systems and must make effective use of resources.

Any specific requirements of our regulations will necessarily reflect the current state of the art, and the commission recognizes the need to consider facilities of novel character as well as to provide for operation of experimental and developmental facilities. Consequently, the proposed regulations contain a provision for granting qualifying status to facilities which might not otherwise qualify, if the commission determines that granting such status is in the public interest.

Scope of the Proposed Rules

In this rulemaking the Commission proposes to deal only with the determination of qualifying status under Section 201 of PURPA. Subsequent rulemakings will implement the PURPA provisions regarding terms and conditions for sale and purchase of electricity by qualifying facilities, including the rates for such transactions, and the provisions for exemption from some forms of electric utility regulation.

Summary of the Proposed Regulations**§ 292.201 Scope.**

The proposed new § 292.201 of the Commission's Regulations states that the section applies to the certification of

¹Section 3(17)(A) of the Federal Power Act.

small power production and cogeneration facilities for qualifying status.

§ 292.202 Application for certification of qualifying status.

Subparagraph (a) provides that any person seeking qualifying status must file an application pursuant to this section. The Commission believes that many potential problems between applicants for certification of qualifying status and affected electric utilities may be eliminated by the initiation of informal discussions between the applicant and the affected utility. In order to insure that an applicant has considered the suitability of his facility for interconnected operation, we propose to require that the applicant initiate discussions with affected utilities, and submit a summary of these discussions with his application for certification. This requirement appears in paragraph (b).

Paragraph (c) sets forth the contents of an application for certification. The application must contain technical information describing the facility, a summary of discussions between the applicant and affected electrical entities, and a description of the equity ownership of the facility.

Paragraph (d) sets forth requirements specifically applicable to small power production facilities. The applicant is required to submit information identifying the primary energy source as one of the energy sources which qualifying small power production facilities are permitted to use by section 3(17)(A)(i) of the Federal Power Act. Generally, applicants are required to supply the location of the facility in relation to other qualifying small power production facilities owned by the applicant and using the same energy resource. This subparagraph provides information needed to implement the power production capacity requirement of section 3(17)(A)(ii) that qualifying small power production facilities located at the same site not exceed 80 megawatts.

Paragraph (e) sets forth additional requirements for applications for cogeneration facilities. In addition to the information acquired under § 292.202(c), applications for certification as qualifying cogeneration facilities must contain information set forth describing the energy input and energy output of the facility in both the heat engines and thermal processes.

§ 292.203 Notice.

This section requires an applicant for qualifying status to serve notice of the

application upon any electric utility with which the applicant proposes to operate in coordination, and to any state regulatory body with jurisdiction over that entity.

§ 292.204 Protests.

This section provides that any entity served with notice under § 292.203, or any other interested party may file a protest to the application for certification. The protest must be filed within 30 days of the service of notice of application. Any person filing a protest is required to serve a copy of the protest on the applicant.

Subparagraph (b) provides that the applicant may file an answer to the protest. Such an answer must be filed within 15 days of the filing of the protest and must be served on the party filing the protest.

§ 292.205 Qualifying requirements for small power production facilities.

Section 292.205 sets forth qualification requirements for small power production facilities. Paragraph (a) sets forth the requirement that the primary energy source for a qualifying small power production facility must be biomass, waste, renewable resources or any combination thereof. The statement on the part of the managers which accompanies the Conference Report of PURPA states that the definition of small power production facility includes solar electric systems, wind electric systems, systems which produce electric energy from waste or biomass, electric energy storage systems, and hydroelectric facilities for existing dams. It also states that the term "waste" includes wood and liquid or solid waste.

For the purpose of the regulations, the term "biomass" means plant materials which are obtained from cultivation, or harvested from naturally occurring vegetation without significant depletion of the resource. The term "waste" covers municipal, agricultural, and industrial wastes and includes any byproduct materials of any operation for which market value is less than disposal cost. Waste may be solid, liquid, or gaseous. Municipal sewage sludge would be a qualifying fuel under this definition. Manure and cornstalks are examples of qualifying agricultural wastes. Wood derived waste and debris from sawmill, lumbering, or pulp mill operations would qualify as biologically derived industrial wastes.

A fuel (such as methane) which is conventionally derived from fossil sources would be a permissible primary fuel if it is obtained from biomass or waste as defined above.

The term "renewable resource" means any application of solar, wind, or geothermal energy. Biomass also may be a renewable resource, but fossil fuels are not. Electric energy storage facilities such as electro-chemical systems, flywheels, or pumped storage units, qualify as long as they do not involve the primary use of fossil fuels as direct inputs to the storage cycle. Senate floor debate established that the definition also includes systems using geothermal resources to produce electricity (S17806, October 9, 1978).

The Conference Report states that water is to be included within the meaning of the term renewable resources "with respect to hydro-electric facilities at existing dams." Clause (i) of paragraph (a) implements this requirement by excluding water as a renewable resource if it is used at a facility which contains a dam or other structure for impounding water, construction of which was not complete as of the date of the application for qualification, or which requires additional construction or enlargement (other than repair or reconstruction) in order to become operative. Under these standards, a hydroelectric facility can not become a qualifying small power production facility unless the impoundment portion of the facility is complete as of the date of the filing for qualification.

The definition of "primary energy source" for small power production facilities as set forth in section 3(17)(B) of the Federal Power Act, indicates that qualifying small power production facilities may make limited use of fossil fuels for ignition, startup, testing, flame stabilization and control purposes, as well as for fuel substitution during outages of a normal fuel supply system.

For ignition, startup and testing purposes, the Commission proposes in subparagraph (2), that the amount of fossil fuel planned to be burned for such purposes not exceed 500 barrels of oil (or its Btu equivalent in gas) per megawatt of rated capacity per year. For flame stabilization and control purposes, the proposed maximum amount is the equivalent of 0.2 barrels of oil per megawatt-hour of generation except for facilities burning solid municipal waste, for which the limit is the equivalent of 0.5 barrels of oil per megawatt-hour of generation.

Most facility outages are likely to involve essential power generation equipment, including the fuel combustion unit, and substitution of a fossil fuel would not restore the facility to proper operation. Based on utility experience with outages which do not

involve the generator, turbine or fuel combustion unit, we propose that the amount of fossil fuel used as a substitute during outages of the normal fuel supply system not exceed the Btu equivalent of 110 barrels of oil per megawatt of rated capacity per year.

The proposed total amount of fossil which may be utilized for all purposes thus would not exceed the equivalent of 610 barrels of oil per year per megawatt of rated capacity, plus the equivalent of 0.2 barrels of oil per hour (0.5 for solid municipal waste) per megawatt of rated capacity during operation of the facility. Subparagraph (3) requires the applicant to submit an estimate of planned use of fossil fuel by the facility, supported by any design characteristics or specifications of the equipment used in the facility.

Paragraph (b) implements the statutory requirement that the rated power production capacity of a small power production facility not exceed 80 megawatts. In order to implement this limitation, we propose to limit the maximum size standard to facilities that use the same energy resource and are owned by the same person. The Commission believes that limiting the applicability of the 80 megawatt maximum size to facilities meeting these stricter standards will encourage the development of small power production facilities as intended by the Congress. For purposes of this section, we propose to define "facilities located at the same site", except for hydroelectric facilities, as facilities located within one mile of the facility for which certification is sought. For hydroelectric facilities, we set forth the additional requirement that, to be considered to be located at the same site, the hydroelectric facilities must use water from the same impoundment for power generation. We propose to add this additional limitation to hydroelectric facilities because use of the one mile rule alone might discourage the development of facilities on a portion of a river with high energy potential which could not be effectively developed with one larger unit.

Clause (iii) states that an applicant may seek to rebut the presumption that facilities located within one mile of the facility for which certification is sought, using the same energy resource and owned by the same person should be considered to be located at the same site. Determinations regarding the rebuttal of the presumption will be based upon the extent to which factors other than an attempt to circumvent the 80 megawatt capacity limitation required smaller physically separated facilities and the extent to which

rebutting the presumption is consistent with conservation of energy and optimal development of resources.

We considered but rejected as administratively infeasible a rule by which facilities located beyond the one mile limit solely for the purpose of circumventing the 80 mw limit would be excluded from qualification. We invite comment on how to implement the Congressional purpose of limiting the benefits of qualifying status and yet not discourage the development of resources.

Subparagraph (2) sets forth provisions for the minimum size of qualifying small power production facilities. It is clear that the minimum fixed costs associated with a small power production facility will set some minimum size of a generating unit below which there is little possibility that the unit can be economic, and therefore resource-efficient. These minimum fixed costs will vary between alternative forms of small power production facilities, both as a consequence of technology advancements and because the cost of interconnecting each facility to a power system varies with respect to metering, switching, supervision, control and safety provisions.

Nevertheless, we have made an effort to identify a practical minimum size, in order to reduce consideration of possibilities which are unlikely to prove viable. A 10-kilowatt unit is proposed as the minimum size for qualification, unless there is a showing that waiver is necessary to encourage conservation of energy and optimization of use of resources.

We recognize that the Department of Energy is sponsoring the development of a number of wind power units of less than 10 kilowatts capacity. Testing and demonstration of these units will require interconnection with utility systems, and, in the event that qualifying status is needed, we may invoke the standard as set forth above for such test operations. However, there seems to be no advantage in encouraging uneconomic operation of commercial systems or burdening utilities with analysis and planning for hypothetical systems which are unlikely to be constructed because they cannot recover the investment costs. Hence, we propose a minimum size of 10-kilowatts with a provision for exemption. We request comment on the feasibility and advisability of a 10-kilowatt minimum size limitation.

Paragraph (c) sets for efficiency standards for small power production facilities using limited access renewable resources.

Where use of a primary energy resource will not significantly limit its use by others, economics will generally dictate the optimum level of efficiency for a small power production facility. Therefore, no minimum standard of efficiency will be mandated for facilities deriving primary energy input from biomass and renewable resources such as solar energy or the wind, which at this time are characterized by essentially unlimited access.

For facilities deriving primary input from energy sources characterized by limited supply or access, such municipal waste, geothermal wells or existing dams, minimum efficiency standards may be desirable to assure reasonable energy recovery from a limited resource. (Access to the limited resource may confer a degree of monopoly power, so that economic forces may not necessarily assure efficient use of the resource.)

For such limited energy resources other than hydroelectric facilities, we propose that the facility achieve a minimum level of 40 percent of the ideal Carnot efficiency achievable with practical working fluid temperatures. Efficiency is defined as the ratio of the output of the heat engine as useful mechanical energy to the energy input to the facility.

Hydroelectric small power production facilities are a special case of a limited access energy resource. The existing licensing criteria include a determination of whether a proposed installation will have an acceptable level of efficiency. For non-jurisdictional hydroelectric projects, we propose that a minimum hydraulic efficiency of 60 percent be realized.

Paragraph (d) is designed to implement the requirement in the new sections 3(17)(C)(ii) and (18)(B)(ii) that a qualifying small power production facility or cogeneration facility be owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities). Regarding this provision, the Commission notes that the Conference Report states that:

[e]lectric utilities may participate in an entity which owns such (qualifying small power production or cogeneration) facilities with other persons, and such entity could qualify under these definitions.

The test of this case is whether the entity which owns the facility is primarily engaged in the generation or sale of electric power other than in connection with its ownership of the cogeneration facilities or small power production facilities.

Thus, either directly or through a subsidiary company, an electric utility could participate in the ownership of a qualifying cogeneration or small power production facility. We note that under a literal interpretation of the Conference Committee's statement, several electric utilities could form a subsidiary which owned small power production or cogeneration facilities. Such a subsidiary would constitute an entity which is not primarily engaged in the generation or sale of electric power other than in connection with its ownership of cogeneration or small power production facilities. Under such an interpretation, the subject facilities would be eligible to receive qualifying status. We believe, however, that the thrust of Section 201 of PURPA is to limit the advantages of qualifying status to cogeneration and small power production facilities which are not owned exclusively by electric utilities or their subsidiaries. Under the proposed regulations, based on the proportion of ownership by electric utilities, public utility holding companies, or subsidiaries of either, the Commission will determine whether more than 50 percent of the entity which owns the cogeneration or small power production facility is comprised of these electric interests. If it is, then the facilities may not be granted qualifying status.

§ 292.206 Qualifying requirements for cogeneration facilities.

Section 292.206 sets forth the requirements for qualifying cogeneration facilities. Paragraph (a) provides that the cogeneration facility must produce electric energy and other forms of useful energy (such as heat or steam) which are used for industrial, commercial heating or cooling purposes. These standards are set forth in subsection 3(18)(A) of the Federal Power Act, as amended by PURPA. This definition reflects the focus of PURPA on sales of electricity by industrial or commercial generating facilities. The key concept is that electricity production as a co-product of process heat or non-electric energy forms may be more resource-efficient than separate production of electricity and other energy forms and, when so, should not be inhibited by artificial barriers. Resource efficiency translates generally to economic efficiency. Hence, a major objective of the Commission's rules is to help assure that projects are economic, and specifically to assist potential cogenerators in their evaluations of project economic feasibility.

Paragraph (b) sets forth the same limitations on utility ownership as apply

to small power production facilities (see pp. 16-18, *supra*).

Paragraph (c) sets forth definitions for terms used to provide efficiency standards for qualifying cogeneration facilities. The Commission's concern with the fuel efficiency of a qualifying cogeneration facility is that the benefits obtained by such a designation be matched by significant improvement in resource utilization. Addition of a heat recovery unit to a diesel engine exhaust, or of a steam turbine generator unit to a process heat waste gas stream might constitute cogeneration in the strict sense of the term, but would only represent a significant improvement in resource utilization if a substantial fraction of the energy potentially available from the thermal stream is actually recovered and used. Consequently, threshold values of efficiency and heat utilization are proposed as a primary basis for qualification of units using energy resources of limited availability, specifically natural gas and petroleum. Lower values may be justified by presentation of evidence that the specified levels are not practicably attainable and that significant resource conservation will be achieved.

For a cogeneration facility coupled to an industrial process which operates in a batch mode, the performance of the facility shall be determined in terms of average values over the duration of a batch run. For any other cogeneration process, the performance of the system shall be determined in terms of steady state operation at rated capacity.

Subparagraph (1) defines "heat engine" as a device which operates on a thermodynamic cycle and converts heat energy to mechanical energy. Subparagraph (2) defines "efficiency of a heat engine" as the ratio of the useful output of a heat engine as mechanical energy to the sum of the energy inputs to the heat engine. Subparagraph (3) defines the "useful energy output of a thermal process" as the difference between the heat inputs to the process and the heat carried away by the heating medium. Subparagraph (4) specifies that, in the use of energy in the form of fossil fuel, energy input is to be measured by the lower heating value of such fuel.

Finally, subparagraph (5) defines "overall energy efficiency" as the ratio of the sum of all useful energy outputs including the useful output of any thermal process to the energy input to the facility. Any energy used exclusively in the thermal process of a topping cycle, or exclusively in the heat engine of a bottoming cycle (supplementary

filing) is not included as energy output or energy input for the purpose of determining the overall cogeneration system efficiency.

A qualifying cogeneration facility may be subject to fuel use regulations established under the Powerplant and Industrial Fuel Use Act (FUA). Under the Act, new powerplants or fuel burning installations of a single unit having a design fuel heat input of 100 million Btu's per hour or greater, or which result in two or more units at the same site having a combined design fuel heat input rate of 250 million Btu's per hour or greater, are prohibited from burning natural gas or petroleum, unless an exemption is provided by the Secretary of Energy. FUA specifically authorizes the Secretary to exempt cogeneration facilities from the prohibition if the benefits of cogeneration are otherwise unobtainable. The Economic Regulatory Administration has issued interim rules under which such exemptions might be granted.

Under PURPA, the Commission may establish fuel use requirements for qualifying cogenerators of any size, but any such requirements regarding the use of natural gas or petroleum would only be effective at fuel heat input levels below the thresholds established by FUA for action by the Secretary of Energy. At such lower levels, a fuel burning installation that does not seek classification as a qualified cogenerating facility would not be subject to a FERC rule and could burn natural gas or oil. Hence, a restriction on the use of gas or oil for cogeneration, imposed by the Commission, could discourage cogeneration at the lower heat input levels, while not significantly reducing the use of oil or natural gas. We conclude that restrictions or requirements on fuel use by qualifying cogeneration facilities are not appropriate in this proposed rule.

Paragraph (d) sets forth efficiency standards for cogeneration facilities using bottoming cycles which use any primary energy source except coal or coal-derived fuels. Because of the abundance of this energy resource at this time, we propose not to impose any limit on the efficiency of such cogeneration facilities and rather to let the marketplace provide the motivation for optimization of efficiency.

For bottoming cycle cogeneration facilities using energy resources other than coal or coal-derived fuels to obtain qualifying status, either the useful energy output of the heat engine must be no less than 15 percent of the difference between the energy input to the facility

and the useful energy output of the thermal process, or the heat engine must attain a minimum of 40 percent of the ideal Carnot efficiency achievable with the maximum and minimum temperatures experienced by the working fluid. In either case, the overall cogeneration facility energy efficiency must be no less than 60 percent.

Efficiency standards for cogeneration facilities using topping cycles vary depending on the primary energy source. Paragraph (e) sets forth efficiency standards for topping-cycle cogeneration facilities using natural gas, petroleum, or any derivative thereof as a primary energy source. The prices of these energy sources are subject to government control, and therefore the prices do not reflect replacement costs. As a result the failure to limit the benefits of qualification to efficient facilities might encourage overconsumption of these fuels. To prevent that result, we propose only to qualify gas or oil burning facilities if:

(1) the useful energy output of the heat engine is no less than 20 percent of the energy input to the facility;

(2) the useful energy output of the thermal process is no less than 45 percent of the heat energy discharged by the heat engine; and

(3) the overall facility energy efficiency is no less than 60 percent.

The next category of topping-cycle cogeneration facilities are those whose primary energy source is characterized by limited access. Use of these resources by one cogenerator deprives another, possibly more efficient cogeneration facility of the opportunity to use these particular energy sources. As a result, we propose to impose efficiency standards on facilities using these resources. The proposed standards are lower than those imposed on facilities using oil or gas.

There is an additional need for efficiency standards for facilities of over 30 megawatts electrical capacity which use biomass or renewable resources, and for which a condition of limited access characterizes the primary energy source. For such facilities, efficiency standards are necessary to ensure that the facility represents a *bona fide* cogeneration system, and not merely an attempt to evade the 30 megawatt statutory limit on exemption from regulation for small power production facilities. The proposed standard is identical to that proposed for facilities of all sizes using primary energy sources characterized by limited access. We do not expect that this standard will exclude any serious cogeneration

proposal from the benefits of qualifying status.

Accordingly, in paragraph (f), we propose that, for topping-cycle cogeneration facilities over 30 megawatts using biomass, renewable resources and waste other than municipal waste, or geothermal energy or any combination thereof, and for topping cycle facilities of any size using geothermal or municipal waste as their primary energy source, efficiency standards be set as follows:

(1) the useful energy output of the heat engine must be no less than 15 percent of the energy input to the facility;

(2) the energy output of the thermal process must be no less than 40 percent of the heat energy discharged by the heat engine; and

(3) the overall facility energy efficiency must be no less than 55 percent.

For cogeneration facilities using either topping or bottoming cycles, using coal or coal-derived fuel as the primary energy source. There are no statutory limits on efficiency for qualification. The abundance of this energy resource permits reliance on the market to optimize efficiency.

Paragraph (g) sets forth a proposed minimum size of 10 kilowatts (electric).

§ 292.207 Exemptions from qualifying requirements:

This section provides that the Commission may waive certain requirements for qualification of cogeneration or small power production facilities, if it determines that waiver is necessary to encourage conservation of energy and optimization of efficiency of use of resources. The Commission may not waive the qualifying requirements for small power production facilities concerning the primary energy source of the facility and limiting ownership to persons not primarily engaged in the generation or sale of electric power. We propose that the ownership limitations for cogeneration facilities similarly be excepted from the waiver provisions along with the statutory definition of a cogeneration facility set forth in § 292.206(a).

§ 292.208 Procedures for determination of qualifying status.

Section 292.208 sets forth the procedures to be used for the Commission to determine whether a facility is to be granted a qualifying status. Paragraph (a) provides that in uncontested proceedings the Commission shall issue an order granting, denying or tolling the time for issuance of an order within 90 days of

the filing of the application. Unless the applicant requests that the presumptions set for in § 292.205(b)(1) be rebutted, if no order is issued within 90 days of the filing of the application, it shall be deemed to have been granted. If any party files a protest to an application, the time for the issuance of an order is extended to 120 days. In the case of contested applications, the provisions for automatic granting of qualifying status do not apply.

Under clause (2) if an applicant seeks to rebut the presumptions concerning facilities located at the same site for purposes of compliance with the 80 megawatt maximum limit on small power production facilities, the application will be treated as a contested application. In that case, the time for issuance of an order is extended to 120 days and qualifying status is not automatically granted if the Commission does not issue an order within that time period.

§ 292.209 Modification of qualifying facilities.

Paragraph (a) provides that the Commission may revoke the qualifying status of a facility if it ceases to comply with the qualifying requirements for small power production or cogeneration facilities. Paragraph (b) provides that, prior to undertaking any substantial alteration of a qualifying facility, a small power producer or cogenerator may apply to the Commission for a determination that the facility, as modified, will retain its qualifying status.

If a small power producer or cogenerator undertakes such changes without obtaining prior Commission approval, he must apply to the Commission to retain qualifying status. Under these procedures, the Commission is attempting to assure that facilities enjoying the benefits of qualifying status continue to comply with the standards for qualification, and also to enable a qualifying facility to undergo necessary changes with assurance that its qualifying status will not thereby be imperiled.

Written Comments

Interested persons are invited to submit written comments on the proposed regulation to the Office of the Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426. Comments should reference Docket No. RM79-54 on the outside of the envelope and on all documents submitted to the Commission. In order that the Commission be able to take into account

as many comments as possible, the Commission requests that persons submitting comments assist in three ways. First, persons should identify specifically the section or subpart they are addressing. Second, comments should clearly state whether they involve technical, policy or legal matters. Finally, where comments urge a different approach from one presented, specific alternative language should be proposed to the extent practicable.

Fifteen (15) copies should be submitted. All comments and related information received by the Commission by August 1, 1979, will be considered prior to the promulgation of final regulations.

(Public Utility Regulatory Policies Act of 1978, Pub. L. 95-617, Energy Supply and Environmental Coordination Act, 15 U.S.C. 791 *et seq.*, Federal Power Act, as amended, 16 U.S.C. 792 *et seq.*, Department of Energy Organization Act, Pub. L. 95-91, E.O. 12009, 42 FR 46267, Natural Gas Policy Act of 1978, Pub. L. 95-621).

In consideration of the foregoing, it is proposed to amend Chapter I of Title 18, Code of Federal Regulations, as set forth below.

By Direction of the Commission.
Kenneth F. Plumb,
Secretary.

(1) Subchapter K is amended in the table of contents by adding in the appropriate numerical order a new Part number and heading to read as follows:

SUBCHAPTER K—REGULATIONS UNDER THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

PART 292—QUALIFICATION OF SMALL POWER PRODUCTION AND COGENERATION FACILITIES UNDER SECTION 201 OF THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

(2) Subchapter K is amended by adding a new Part 292 to read as follows:

PART 292—QUALIFICATION OF SMALL POWER PRODUCTION AND COGENERATION FACILITIES UNDER SECTION 201 OF THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

Subpart A—[Reserved]

Subpart B—Certification of Qualifying Status

Sec.

- 292.201 Scope.
- 292.202 Applications for certification of qualifying status.
- 292.203 Notice.
- 292.204 Protests.

- 292.205 Qualifying requirements for small power production facilities.
- 292.206 Qualifying requirements for cogeneration facilities.
- 292.207 Exemptions from qualifying requirements.
- 292.208 Procedures for determination of qualifying status.
- 292.209 Modification of qualifying facilities. (Authority: This part issued under the Public Utility Regulatory Policies Act of 1978, Pub. L. 95-617, Energy Supply and Environmental Coordination Act, 15 U.S.C. 791 *et seq.*, Department of Energy Organization Act, Pub. L. 95-91, E.O. 12009, 42 FR 46267, Natural Gas Policy Act of 1978, Pub. L. 95-621.)

Subpart B—Certification of Qualifying Status

§ 292.201 Scope.

This subpart applies to the certification of small power production and cogeneration facilities as qualifying small power production and cogeneration facilities under sections 3(17)(C) and 3(18)(8) of the Federal Power Act, as amended by section 201 of the Public Utility Regulatory Policies Act of 1978 (PURPA).

§ 292.202 Applications for certification of qualifying status.

(a) *Filing requirements.* Any person seeking qualifying status for a small power production facility or cogeneration facility must file an application pursuant to the provisions of this section.

(b) *Pre-application requirements.* Before filing an application under this section, an applicant shall initiate or shall attempt to initiate discussions regarding the feasibility of interconnected operation with the entity with which the applicant proposes to so operate.

(c) *Contents of application.* Each application shall contain the following information:

- (1) the name, address, and business of the applicant and, if the operator of the facility is a person other than the applicant, the name, address, and business of the operator;
- (2) the electrical capacity of the facility;
- (3) information regarding the efficiency of any heat engines, thermal process, other energy conversion processes, and the facility as a whole;
- (4) the projected mode of operation of the facility, including anticipated daily and annual capacity factors of electric power generation and sale, a proposed plan for interconnected operation, and the proposed interconnection facilities to be provided by applicant and by the utility;

(5) a summary of the discussions between the applicant and the affected entity regarding the feasibility of interconnected operation between the applicant and affected entity conducted pursuant to § 292.202(b);

(6) a description of the equity ownership of the facility. If the owner of the facility, including any person which has ownership in any owner of the facility, is engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities, or small power facilities) the applicant shall state:

(i) the percentage of ownership by electric utilities, or by public utility holding companies, or by any person owned by either; and

(ii) the State and federal bodies which exercise ratemaking authority with respect to the applicant;

(7) a statement that the cogeneration or small power production facility complies or will comply with all applicable FERC rules and regulations.

(d) *Additional application requirements for small power production facilities.* In addition to the information required under § 292.202(c), applications for certification as qualifying small power production facilities must contain the following additional information:

- (1) a description of the facility;
- (2) information sufficient to identify the primary energy source as biomass, waste or renewable resources and identifying any planned usage of fossil fuel; and

(3) the location of the facility in relation to other qualifying small power production facilities owned by the applicant and using the same energy resource.

(e) *Additional application requirements for cogeneration facilities.* In addition to the information required under § 292.202(c), applications for certification as qualifying cogeneration facilities must contain the following additional information:

- (1) a basic description of the facility, including whether the facility uses a topping or bottoming cycle;
- (2) a description of the energy inputs, including the primary energy source, any additional energy sources, and the energy content of any fuels used as energy sources; and
- (3) a description of the energy outputs, indicating the type and size of heat engines, thermal processes, and other energy conversion processes.

§ 292.203 Notice.

(a) Applications filed under this section shall include a copy of a notice

of the request for certification. The notice shall state the applicant's name, the date of the application, and a brief description of the facility for which qualification is sought and of the proposed interconnection. The notice shall be in the following form:

United States of America—Federal Energy Regulatory Commission

(Name of Applicant) _____

Notice of Application for Certification of a (Small Power Production) (Cogeneration) Facility Pursuant to Section 3(17)(C) or 3(18)(B) of the Federal Power Act

On (date application was filed), (name and address of applicant) filed with the Federal Energy Regulatory Commission an application to be certified as a qualifying (small power production facility) (cogeneration facility) under Paragraph 3(17)(C) or 3(18)(B) of the Federal Power Act. [Brief description of the facility].

Any person objecting to the granting of qualifying status may file a protest in accordance with the provisions of § 1.10 of the Commission's Rules and Regulations. All protests must be filed within 30 days after the date of issuance of this notice and must be served on the applicant.

(b) The applicant shall serve a copy of the notice on any entity with which the applicant proposes to interconnect, and a copy on any state regulatory authority with jurisdiction over the entity.

§ 292.204 Protests.

(a) Any entity served under § 292.203, or any other interested party, may file a protest pursuant to § 1.10 of the Commission's Regulations. Protests must be filed within 30 days of the issuance of public notice of the application. Protests must set forth specifically the grounds on which the protestant believes the facility for which the application is made should be denied certification of qualifying status. Any person filing such a protest shall serve a copy of the protest on the applicant.

(b) The applicant may file an answer to any protest. Such answer must be filed within 15 days of the service date of a protest. The applicant shall serve a copy of the answer on the party filing the protest.

§ 292.205 Qualifying requirements for small power production facilities.

To be certified as a qualifying small power production facility, a facility for which an application is filed must meet the following requirements:

(a) *Fuel use.*

(1) The primary energy source of the facility must be biomass, waste, renewable resources or any combination thereof. For purposes of this section,

water is a renewable resource with respect to hydroelectric facilities except to the extent that such facilities:

(i) include dams or other structures for impounding water, the construction of which was not completed on or before the date of the filing of the application for qualification under § 292.202(a), or

(ii) require any construction or enlargement of impoundment structures (other than repair or reconstruction) in connection with their installation.

(2) Planned use of fossil fuel for start-up, testing, flame stabilization and control purposes and during outages of the fuel supply system may not exceed the following limits:

(i) for ignition, start-up and testing, not more than 500 barrels (bbl) of oil per year (or its Btu equivalent in gas) per megawatt of rated capacity;

(ii) for flame stabilization and control, not more than 0.2 bbl of oil per hour (or its Btu equivalent in gas) per megawatt of rated capacity during operation of the facility; except for facilities burning solid municipal waste, in which case the limit is the equivalent of 0.5 bbl of oil per megawatt hour of generation; and

(iii) during outages of the normal fuel supply system, not more than 110 bbl of oil (or its Btu equivalent in gas) per year per megawatt of rated capacity.

(3) An applicant shall submit an estimate of the planned use of fossil fuel by the facility and this estimate shall be supported, where available, by design characteristics or specifications of the equipment used in the facility.

(b) *Size of the facility.*

(1) *Maximum size.* (i) The rated power production capacity of the facility for which certification is sought, together with the capacity of any other facilities that use the same energy resource and are owned by the same person and are located at the same site, must be no greater than 80 megawatts.

(ii) For purposes of this paragraph, facilities are presumed to be located at the same site as the facility for which certification is sought if they are located within one mile of the facility for which certification is sought and, for hydroelectric facilities, if they use water from the same impoundment for power generation.

(iii) An applicant may seek to rebut the presumption in subparagraph (ii) for any facility located within one mile of the facility for which certification is sought. In determining whether the presumption has been rebutted, the Commission will consider:

(A) the extent to which factors other than the 80 megawatt capacity limitation dictate smaller, physically separated

facilities rather than larger, integrated or physically contiguous facilities; and

(B) the extent to which consideration of the facility as being at a different site from other facilities is consistent with conservation of energy and optimally efficient use of resources.

(2) *Minimum size.* A facility must have a design capacity of at least 10 kilowatts. This provision may be waived if the Commission finds that granting qualifying status to the facility is necessary to encourage conservation of energy or the optimization of the efficiency of use of resources.

(c) *Efficiency standards for facilities using limited access renewable resources.*

(1) A facility using geothermal resources or municipal waste as a primary energy source must achieve a minimum of 40 percent of the ideal Carnot efficiency achievable with the maximum and minimum temperatures experienced by the working fluid.

(2) Hydroelectric facilities not regulated under Part I of the Federal Power Act must achieve hydraulic efficiency of at least 60 percent.

(d) *Ownership.* A small power production facility must be owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities). For purposes of this paragraph, a small power production facility shall be considered to be owned by a person primarily engaged in the generation or sale of electric power if more than 50 per cent of the equity interest in the facility is held by an electric utility or utilities, or by a public utility holding company, or companies, or any combination thereof. If a subsidiary of an electric utility or public utility holding company has an ownership interest in a facility, the subsidiary's ownership interest shall be considered as ownership by an electric utility or public utility holding company.

§ 292.206 Qualifying Requirements for Cogeneration Facilities.

(a) The cogeneration facility must produce electric energy and other forms of useful energy (such as heat or steam) which are used for industrial, commercial, heating or cooling purposes.

(b) A cogeneration facility must be owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities). For purposes of this paragraph, a cogeneration facility may not be certified as qualifying if more than 50

per cent of the facility is owned by an electric utility or utilities or a public utility holding company, or any combination thereof. If a wholly or partially owned subsidiary of an electric utility or public utility holding company has an ownership interest in a facility, the subsidiary's ownership interest shall be counted as ownership by an electric utility.

(c) For purposes of this subsection,

(1) "heat engine" means a device which operates on a thermodynamic cycle and converts heat energy to mechanical energy;

(2) "efficiency of a heat engine" means the ratio of the useful output of a heat engine as mechanical energy to the energy inputs to the heat engine;

(3) "useful energy output of a thermal process" means the difference between the heat input to the process and the heat carried away by the heating medium;

(4) "energy input", in the case of energy in the form of fossil fuel, is to be measured by the lower heating value of such fuel;

(5) "overall energy efficiency" means the ratio of the sum of all useful energy outputs including the useful output of any thermal process to the energy input of the facility. Any energy used exclusively in the thermal process of a topping cycle, or exclusively in the heat engine of a bottoming cycle (supplementary filing) shall not be included as energy output or energy input for the purpose of determining the overall cogeneration system efficiency.

(d) For bottoming cycle cogeneration facilities using any primary energy source, except coal or coal-derived fuels, the following efficiency standards apply:

(1)(i) the efficiency of the heat engine must be no less than 15 percent with regard to the difference between the energy input to the facility and the useful energy output of the thermal process; or

(ii) the heat engine must attain a minimum of 40 percent of the ideal Carnot efficiency achievable with the maximum and minimum temperatures experienced by the working fluid; and

(2) the overall cogeneration facility energy efficiency must be no less than 60 percent.

(e) For topping-cycle cogeneration facilities using natural gas, petroleum, or any derivative thereof, as a primary energy source, the following efficiency standards apply:

(1) the efficiency of the heat engine must be no less than 20 per cent with regard to the energy input to the facility;

(2) the energy output of the thermal process must be no less than 45 per cent of the difference between the energy output of the heat engine and the useful energy output of the heat engine; and

(3) The overall facility energy efficiency must be no less than 60 per cent.

(f) for topping-cycle cogeneration facilities over 30 megawatts using biomass, renewable resources other than municipal waste, or any combination thereof, and for any facilities using geothermal energy or municipal waste as their primary energy source, the following efficiency standards apply:

(1) the useful energy output of the heat engine must be no less than 15 percent of the energy input to the facility;

(2) the energy output of the thermal process must be no less than 40 percent of the energy output of the heat engine minus all useful energy output of the heat engine; and

(3) The overall facility energy efficiency must be no less than 55 per cent.

(g) *Minimum size.* The cogeneration facility must have a design capacity of at least 10 kilowatts (electric).

§ 292.207 Exemptions from Qualifying Requirements.

The Commission may waive any of the provisions of §§ 292.205 and 292.206 except for §§ 292.205(a)(1); 292.205(d); 292.206(a); and 292.206(b), if it determines that the waive is necessary to encourage conservation of energy and optimization of efficiency of use of resources.

§ 292.208 Procedures for determination of qualifying status.

(a) *Uncontested applications.* Except as set forth in subparagraph (2), the following procedures apply to uncontested applications for certification of qualifying status:

(1) If no protest is received during the period allowed, the Commission shall issue an order within 90 days of the filing of a complete application, granting or denying the application, tolling the time for issuance of an order, or setting the matter for hearing. Any order denying certification shall identify the specific requirements which were not met. If no order is issued within 90 days of the filing of the application, it shall be deemed to have been granted.

(2) An application for certification as a small power production facility seeking to rebut the presumption set forth in § 292.205(b)(1)(ii) of this subpart will be considered a contested

application under paragraph (b) of this section.

(b) *Contested applications.* If any person files a protest to an application for certification, the Commission shall issue an order within 120 days of the filing of the original application.

§ 292.209 Modification of qualifying facilities.

(a) The Commission may revoke the qualifying status of a qualifying cogeneration or small power production facility if such facility undergoes changes which cause the facility not to be in compliance with the provisions of § 292.205 or § 292.206.

(b) Prior to undertaking any substantial alteration or modification of qualifying facilities, a small power producer or cogenerator may apply to the Commission for a determination that the proposed alteration or modification will not result in a revocation of qualifying status.

(c) If a small power producer or cogenerator undertakes any substantial alteration or modification of qualifying facilities without a determination of the Commission that such alteration or modification will not result in a revocation of qualifying status, the small power producer or cogenerator shall apply for certification pursuant to § 292.202(a) of the facilities as altered or modified.

(d) For purposes of this section, the term "substantial alteration or modification of qualifying facilities" means such alteration, modification or other changes as would materially affect the accuracy of the information submitted pursuant to § 292.202(a).

[FR Doc. 79-20412 Filed 7-2-79; 8:45 am]

BILLING CODE 6450-01-M

DEPARTMENT OF ENERGY

Economic Regulatory Administration

(Docket No. ERA-R-79-46)

Voluntary Guideline for Solar Energy and Renewable Resources Respecting the Federal Standards Under the Public Utility Regulatory Policies Act of 1978; Proposed Guideline and Public Hearings**AGENCY:** Economic Regulatory Administration, Department of Energy.**ACTION:** Notice of proposed voluntary guideline and public hearings.

SUMMARY: On June 20, 1979, the President directed the Department of Energy (DOE) to develop and publish within 120 days a voluntary guideline, applying specifically to solar energy and renewable resources, for the ratemaking and other regulatory policy standards established under Title I of the Public Utility Regulatory Policies Act of 1978 (PURPA). Appendix A to this Notice contains the proposed voluntary guideline for solar energy and renewable resources. Written comments will be received and two public hearings will be held with respect to the proposed guideline.

DATES: Comments by December 10, 1979. Requests to speak by November 15, 1979, 4:30 p.m. Hearing dates: Washington, D.C. hearing—December 4, 1979, 9:30 a.m.; Kansas City, Missouri hearing—November 29, 1979, 9:30 a.m.

ADDRESSES: All comments addressed to: Department of Energy, Office of Public Hearings Management, Docket No. ERA-R-79-46, 2000 M Street, NW., Room 2313, Washington, D.C. 20461. Requests to speak addressed to: Department of Energy, Office of Public Hearings Management, Docket No. ERA-R-79-46, 2000 M Street, NW., Room 2313, Washington, D.C. 20461, telephone (202) 254-5201. Hearing locations: Washington, D.C. hearing: 2000 M Street, NW., Room 2105, Washington, D.C. 20461; Kansas City, Missouri hearing: 601 East 12th Street, Room 140, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT: Dr. Stephen S. Skjei, Division of Regulatory Assistance, Office of Utility Systems, Economic Regulatory Administration, Department of Energy, 2000 M Street, NW., Room 4016D, Washington, D.C. 20461, telephone (202) 254-8209. William L. Webb, Office of Public Information, Economic Regulatory Administration, Department of Energy, 2000 M Street, NW., Room B-110, Washington, D.C. 20461, telephone

(202) 634-2170. Mary Ann Masterson, Office of General Counsel, Department of Energy, 20 Massachusetts Avenue, NW., Room 3228, Washington, D.C. 20461, telephone (202) 376-9469.

SUPPLEMENTARY INFORMATION:**I. Background**

On June 20, 1979, the President directed DOE to develop and publish within 120 days a voluntary guideline, applying specifically to solar energy and renewable resources, for the 11 standards established in the Public Utility Regulatory Policies Act of 1978 (PURPA), Pub. L. 95-617, 92 Stat. 3117 *et seq.* (16 U.S.C. 2601 *et seq.*). The 11 standards, specified in detail by sections 111(d) and 113(b) of PURPA, are summarized as follows:

- (1) *Cost-of-Service Standard:* Rates to each class of consumers shall be designed to the maximum extent practicable to reflect the costs of providing service to that class;
- (2) *Declining Block Rates Standard:* Declining block energy charges that are not cost-based shall be eliminated;
- (3) *Time-of-Day Rates Standard:* Time-of-day rates shall be established, if cost-effective, where costs vary by time of day;
- (4) *Seasonal Rates Standard:* Seasonal rates shall be established where costs vary by season;
- (5) *Interruptible Rates Standard:* Interruptible rates based on the costs of providing interruptible service shall be offered to commercial and industrial customers;
- (6) *Load Management Techniques Standard:* Load management techniques shall be offered to consumers where practicable, cost-effective, reliable and useful to the utility for energy or capacity management;
- (7) *Master Metering Standard:* Master metering shall be prohibited or restricted for new buildings to the extent necessary to carry out the purposes of Title I of PURPA;
- (8) *Automatic Adjustment Clauses Standard:* Automatic adjustment clauses shall not be allowed unless they provide efficiency incentives and are reviewed in a timely manner;
- (9) *Consumer Information Standard:* All consumers shall receive a clear and concise explanation of applicable and proposed rate schedules, and annual consumption, upon request;
- (10) *Procedures for Termination of Service Standard:* Service shall not be terminated except pursuant to certain enumerated procedures; and
- (11) *Advertising Standard:* Political or promotional advertising shall not be charged to ratepayers.

PURPA requires each State regulatory authority, with respect to each utility for which it has ratemaking authority and certain nonregulated electric utilities, to consider the standards within the time frames, procedures and other requirements established by PURPA and to make a specific determination with respect to the implementation or adoption of each standard.

Section 131 of PURPA gives the Secretary of Energy the authority to prescribe voluntary guidelines respecting consideration of the standards. Congress intended that, in formulating these guidelines, the Secretary utilize a procedure involving significant input from concerned persons.

On August 20, 1979, DOE issued a Notice of Intent (44 FR 49998, August 24, 1979) setting forth, among other things, its intentions with respect to the exercise of its authority under PURPA to promulgate voluntary guidelines for the standards. On August 24, 1979, DOE issued a Notice of Inquiry (44 FR 50635, August 29, 1979) to solicit public comments for consideration by DOE in developing a guideline for applying the PURPA standards to solar energy and renewable resources. DOE received and considered 33 written comments in response to the Notice of Inquiry. These comments, DOE's response to them, and the proposed guideline are discussed below.

II. Discussion of Comments and DOE's Response.

The following is a discussion of comments received and DOE's response to these comments. The discussion is organized according to the general areas of concern expressed by the commenters.

A. Definition of Solar Energy and Renewable Resources

The majority of the commenters agreed with DOE's definition of solar energy and renewable resources. A number of them felt, however, that (1) "biomass" might be loosely interpreted to include oil, gas and coal; (2) energy stored in the atmosphere, wave action and ocean currents which appeared to be excluded from the definition should be included; and/or (3) solar energy and renewable resource were not synonymous.

DOE did not intend to have biomass interpreted to include oil, natural gas and coal. The expense of time needed to regenerate these resources is significant and not comparable to that required for wood and other traditional biomass types. Therefore, oil, natural gas and coal are not considered renewable in the

DOE's sense of the definition. DOE considers energy stored in the atmosphere to be included within the meaning of the proposed definition.

DOE agrees that solar energy and renewable resources are not synonymous. In the proposed guideline, DOE has decided to use the terms "solar energy and renewable resources" to make it clear that the guideline includes both concepts. Furthermore, DOE has restricted the definition to dispersed (on-site) technologies for which solar energy and renewable resource systems provide only a portion of end-use requirements, the remainder being provided through retail purchases of utility generated electricity.

B. Factors To Consider in Cost-of-Service Determination

The majority of commenters felt that the factors considered in the determination of cost of service for customers using solar energy and renewable resource systems should be consistent with the factors considered in cost-of-service determination for other customer classes (basically energy, customer and demand-related costs.) DOE agrees that in determining cost of service, solar energy and renewable resource customers should not be treated differently than other customers. However, the proposed guideline does not identify precise factors to be considered for cost-of-service considerations but addresses more general cost-of-service issues.

C. Treatment of Solar Energy and Renewable Resources as a Separate Tariff Class

Many commenters agreed that if solar energy and renewable resource customers impose costs and demands similar to others in an existing class, then a separate tariff class is not warranted. However, several commenters made the observation that if rates are structured on a time-differentiated basis, there is no need for a separate tariff class. A few commenters insisted that solar energy and renewable resource customers be placed on a separate tariff.

DOE agrees that a separate tariff class for solar energy and renewable resources may be justified under certain circumstances and has structured the guideline accordingly.

D. Factors To Consider in Assessment of Impact of Time-of-Day, Seasonal, Interruptible and Declining Block Rates on Solar Energy and Renewable Resource Customers

Commenters provided both general and specific factors they felt should be

considered in assessing the impact of alternative rate designs on solar energy and renewable resources. These factors ranged from customer load shapes and storage capacity to meteorological conditions.

DOE agrees with many of the factors presented by various commenters. However, in most cases the factors raised by commenters were generally applicable and were not specifically related to solar energy and renewable resource systems. In this guideline DOE chose to emphasize the relationship between various rate designs and the use of solar energy and renewable resource systems. For this reason the factors which would be generally applicable in making a PURPA determination on a rate design are not addressed here.

E. Factors To Consider in Assessing Use of Solar Energy and Renewable Resources as Load Management Devices

Commenters suggested several factors which should be considered in assessing the usefulness of solar energy and renewable resources as load management devices.

DOE agrees with some of the factors provided by the commenters and has included them in the guideline. Other factors suggested by commenters were determined to be generally applicable to assessing load management capability, and not specifically related to solar energy and renewable resources. Therefore, these factors are not addressed in this guideline. In the guideline DOE has suggested that a solar energy and renewable resource system, suitably configured, may provide load management benefits consistent with the definition of "load management techniques" in Title I of PURPA. However, DOE cautions that not all solar energy and renewable resource systems can provide useful load management advantages. Whether solar energy and renewable resource systems can act as load management devices should be determined on a case basis.

F. Factors To Consider in Assessing Impact of Master Metering on Solar Energy and Renewable Resources

Some commenters felt that the cost-benefit assessment of master metering in multi-unit dwellings would be the same with solar energy and renewable resource systems as it would without these systems. Others felt that master metering is necessary if energy conservation is to accrue from the use of solar energy and renewable resource devices in multi-unit dwellings.

The proposed guideline suggests that the master metering standard be evaluated in terms of its benefits and costs with respect to the use of solar energy and renewable resource systems in multi-unit dwellings.

G. Other Comments

Two commenters asserted that DOE lacks authority to issue a guideline applying the 11 PURPA standards to solar energy and renewable resources for the following reasons: (1) A solar energy and renewable resource guideline goes beyond the scope of section 131 of PURPA; (2) the Presidential directive lacks the specificity necessary for the development of a meaningful guideline; and (3) Title I of PURPA does not cover the issue of utility purchase of excess energy from solar energy or renewable resource systems.

Section 131 of PURPA provides that voluntary guidelines prescribed by the Secretary "may not expand the scope or legal effect" of the PURPA standards or establish additional standards. It is DOE's opinion that the proposed guideline does not expand the scope or legal effect of the PURPA standards; neither does the guideline establish additional standards for solar energy and renewable resource systems. The proposed guideline addresses the 11 PURPA standards in the specific context of solar energy and renewable resource use. It does not advocate that solar energy and renewable resource systems be accorded special treatment outside the scope of the PURPA provisions relating to the standards. It is DOE's opinion that the proposed guideline carries out the intent of the Presidential directive, that is, to provide guidance for consideration of the PURPA standards with particular reference to solar energy and renewable resources.

Finally, it should be noted that the proposed guideline does not cover utility purchase of excess energy from solar and renewable resource systems. Section 210 of PURPA and applicable rules promulgated by the Federal Energy Regulatory Commission govern such situations for qualifying cogeneration and small power production facilities.

Several commenters urged DOE to issue general guidelines which provide the flexibility necessary to deal with a relatively new resource system and which give adequate attention to unique, geographic, utility system and energy system characteristics. DOE recognizes this concern and believes that the proposed guideline is general in nature and ensures sufficient flexibility.

III. PURPA Guideline for Solar Energy and Renewable Resources

Appendix A to this Notice contains the proposed guideline. This guideline is intended to provide assistance to State regulatory authorities and nonregulated electric utilities in their consideration of the PURPA standards with respect to the use of solar energy and renewable resources by utility customers.

The guideline sets forth DOE's opinion regarding consideration of the PURPA standards by discussing (1) issues which are pertinent to consideration of the standards with respect to solar energy and renewable resources, and (2) particular factors which should be considered in addressing the issues and making the PURPA determinations. DOE intends to supplement this guideline, as necessary, with technical information manuals and other resource materials which address specific analytical issues that may arise in the consideration of these standards as they affect the introduction and use of solar energy and renewable resource technologies.

The proposed guideline is advisory and contains DOE's opinion on the relationship between consideration of the 11 PURPA standards and the use of solar energy and renewable resources by utility customers. In the proposed guideline, DOE's concern is focused substantively on the following: (1) That utility regulatory and ratemaking policy neither favor nor penalize use of alternative sources of energy by customers, and (2) that consideration of the PURPA standards further the three purposes of Title I of PURPA (that is, conservation of energy supplied by utilities, optimization of the efficient use of facilities and resources by utilities, and equitable rates to consumers).

Following is a brief summary of the proposed guideline for each of the PURPA standards:

Cost of Service. DOE proposes that marginal costing procedures be used in determining cost of service. It is DOE's opinion that marginal cost pricing is consistent with the PURPA goals of efficient use of facilities and resources and conservation of energy. In addition, marginal cost pricing is necessary if rates are, in an economic sense, to be nondiscriminatory and therefore equitable for all customers including solar energy and renewable resource customers.

Rate Design Standards: Declining Block, Time-of-Day, Seasonal and Interruptible. The proposed guideline advocates the development of rate structures which reflect marginal costs to the maximum extent practicable. Depending upon circumstances unique

to a utility, these rate structures may include time-of-day rates (where cost-effective), seasonal rates, and interruptible rates.

Load Management Techniques: It is DOE's opinion that, within the context of section 115(c) of PURPA, solar energy and renewable resource systems, suitably configured, may provide load management benefits. Depending on the type of solar energy or renewable resource system used, particularly its storage capacity, a solar energy or renewable resource system may reduce maximum kilowatt demand on the utility. The proposed guideline emphasizes the importance of this effect when a State regulatory authority or nonregulated utility is assessing alternative load management options.

Master Metering. Cost-effective use of solar energy and renewable resource systems in some facilities may not be possible with separate metering, at least for centralized heating and cooling systems. In system instances, master metering in combination with solar energy and renewable resource systems may be appropriate. The proposed guideline recommends that the benefits of and costs associated with the installation of individual meters be carefully weighed against the benefits and costs of master metering combined with solar energy and renewable resource systems.

Automatic Adjustment Clauses. Section 115(e)(1)(A) of PURPA requires that fuel adjustment clauses provide incentives for efficient use of resources, including incentives for economical purchase and use of fuel and electric energy, by a utility. The proposed guideline emphasizes the potential of solar energy and renewable resources as alternatives to the purchase of conventional fuels and sources of power.

Information to Consumers. The proposed guideline points out the importance of consumer knowledge of rate schedules, particularly those pertaining to solar energy and renewable resource customers as a separate class.

Procedures for Termination of Electric Service. Since specific attention to solar energy and renewable resource systems is not necessary when considering this standard, no guideline is proposed.

Advertising. The proposed guideline emphasizes the positive implications of the Residential Conservation Service Program established under the National Energy Conservation Policy Act of 1978 (NECPA), Pub. L. 95-619, 92 Stat. 3206 *et seq.*, for the utilization of solar energy

and renewable resource devices by utility customers.

IV. Written Comments and Public Hearing Procedures.

A. Written Comments

The public is invited to participate in this proceeding by submitting to DOE's Economic Regulatory Administration (ERA) information, views or arguments with respect to the proposals set forth in Appendix A to this Notice. Comments should be submitted by 4:30 p.m., e.s.t., December 3, 1979, to the address indicated in the "ADDRESSES" section of this Notice and should be identified on the outside of the envelope and on documents submitted with the designation: "Proposed Voluntary Guideline for Solar Energy and Renewable Resources, Docket No. ERA-R-79-46." Five copies should be submitted. All comments received will be available for public inspection in the DOE Reading Room, GA-152, James Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C. 20585, and the ERA Office of Public Information, Room B-110, 2000 M Street, NW., Washington, D.C. 20461 between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday.

Pursuant to the provisions of 10 CFR 1004.11 (44 FR 1908, January 8, 1979), any person submitting information which he or she believes to be confidential and which may be exempt by law from public disclosure should submit one complete copy and 15 copies from which information claimed to be confidential has been deleted. In accordance with the procedures established at 10 CFR 1004.11, DOE shall make its own determination with regard to any claim that information submitted be exempt from public disclosure.

B. Public Hearings

(1) Procedures for request to make oral presentation. The times and places for the hearings are indicated in the "DATES" and "ADDRESSES" sections of this Notice. Any person who has an interest in this proposed guideline or represents a person, group or class of persons that has an interest, may make a written request for an opportunity to speak at the public hearings. Requests to speak must be sent to the address shown in the "ADDRESSES" section and be received by November 15, 1979. The request should include a telephone number where the speaker may be contacted through the day before the hearing.

All persons participating in the hearing will be so notified on or before November 20, 1979, for the Washington.

D.C. and Kansas City, Missouri hearings. Speakers should submit 100 copies of their hearing testimony for distribution at the Washington, D.C. hearing by 4:30 p.m. on December 3, 1979, to the Office of Public Hearings Management, U.S. Department of Energy, Room 2313, 2000 M Street, N.W., Washington, D.C. 20461, and bring 100 copies of their hearing testimony to the Kansas City, Missouri hearing at 8:30 a.m. on November 29, 1979.

(2) Conduct of the hearing. ERA reserves the right to schedule participants' presentations and to establish the procedures governing the conduct of the hearing. ERA may limit the length of each presentation, based on the number of persons requesting to be heard. ERA encourages groups that have similar interests to choose one appropriate spokesperson qualified to represent the views of the group.

ERA will designate officials to preside at the hearings. These will not be judicial-type hearings. Questions may be asked only by those conducting the hearings. At the conclusion of all initial oral statements, each person who has made an oral statement will be given the opportunity, if time permits, to make a rebuttal statement. Rebuttal statements will be given in the order in which the initial statements were made and will be subject to time limitations.

Questions to be asked at a hearing should be submitted, in writing, to the presiding officer. The presiding officer will determine whether the question is relevant, and whether time limitations permit it to be presented for answer. The question will be asked of the witness by the presiding officer.

The presiding officer will announce any further procedural rules needed for the proper conduct of the hearings.

ERA will have transcripts made of the hearings and will retain the entire record of the hearings, including the transcript. The record will be available for inspection at the DOE Freedom of Information Office, Room GA-152, James Forrestal Building, 1000 Independence Avenue, SW, Washington, D.C. 20585 and the ERA Office of Public Information, Room B-110, 2000 M Street, NW, Washington, D.C. 20461, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. A copy of the transcript may be purchased from the reporter.

(Public Utility Regulatory Policies Act of 1978, Pub. L. 95-617, 92 Stat. 3117 *et seq.* (18 U.S.C. 2601 *et seq.*); National Energy Conservation Policy Act of 1978, Pub. L. 95-619, 92 Stat. 3206 *et seq.*; Department of Energy Organization Act, Pub. L. 95-91 (42 U.S.C. 7101 *et seq.*))

Issued in Washington, D.C. on October 12, 1979.

Jerry L. Pfeffer,
Assistant Administrator for Utility Systems,
Economic Regulatory Administration.

Appendix A—PURPA Guideline No. 1: Solar Energy and Renewable Resources

A. Introduction

The guideline identifies the implications of each of the ratemaking and regulatory policy standards, established by Title I of the Public Utility Regulatory Policies Act of 1978 (PURPA), for the introduction and use of solar energy and renewable resources within an electric utility's service area. The guideline sets forth the issues and factors the Department of Energy (DOE) considers pertinent to consideration of the PURPA standards as they apply specifically to solar energy and renewable resources. In particular, it addresses the effect that adoption of these standards might have on the utilization of solar energy and renewable resources by utility customers.

B. Coverage of the Guideline

The guideline covers the 11 ratemaking and regulatory policy standards established in PURPA. The guideline does not in any way modify or condition the rules and regulations which have been promulgated by the Federal Energy Regulatory Commission (FERC) under section 133 of PURPA for cost-of-service information or which will be promulgated by the FERC under section 210 of PURPA for small power producers and cogenerators. DOE's Economic Regulatory Administration (ERA) has in the past submitted its opinions on cost-of-service and "buy-back" rates to the FERC and may continue to submit its opinions on section 210 rules in the future. Consequently, this guideline covers neither the sale of electric energy to qualifying facilities nor the purchase of energy from such facilities if the sale and purchase are subject to the provisions of section 210 and any rules promulgated pursuant thereto.

C. Definitions

As used in this guideline, except as otherwise specifically provided—

"Solar energy and renewable resources" means energy received from the sun directly in the form of radiant energy, including photovoltaics, and energy received from the sun indirectly in the form of stored radiant energy in biomass (i.e., wood, vegetation and organic solid wastes), the atmosphere, heated surface waters, the potential and

kinetic energy of water elevated via the hydrological cycle, and the kinetic energy of the wind. The term is further restricted to dispersed (on-site) technologies for which solar energy and renewable resource systems provide only a portion of end-use requirements, the remainder being provided through retail purchases of utility generated electricity.

"Class" means, with respect to electric consumers, any group or such consumers who have similar characteristics of electric energy use.

"Electric consumer" means any person, State agency or Federal agency, to which electric energy is sold other than for purposes of resale.

"Electric utility" means any person, State agency, or Federal agency, which sells electric energy.

"Federal agency" means an executive agency (as defined in section 105 of Title 5 of the United States Code).

"Load management technique" means any technique (other than a time-of-day or seasonal rate) to reduce the maximum kilowatt demand on the electric utility, including ripple or radio control mechanisms, and other types of interruptible electric service, energy storage devices, and load-limiting devices.

"Nonregulated electric utility" means any electric utility other than a State regulated electric utility.

"Person" means an individual, partnership, corporation, unincorporated association or any other group organization or entity.

"Rate" means (a) any price, rate, charge, or classification made, demanded, observed, or received with respect to sale of electric energy by an electric utility to an electric consumer, (b) any rule, regulation, or practice respecting any such rate, charge, or classification, and (c) any contract pertaining to the sale of electric energy to an electric consumer.

"Ratemaking authority" means authority to fix, modify, approve, or disapprove rates.

"Rate schedule" means the designation of the rates which an electric utility charges for electric energy.

"Secretary" means the Secretary of Energy.

"State" means and State, the District of Columbia, and Puerto Rico.

"State agency" means a State, political subdivision thereof, and any agency or instrumentality of either.

"State regulated electric utility" means any electric utility with respect to which a State regulatory authority has ratemaking authority.

"State regulatory authority" means any State agency which has ratemaking authority with respect to the sale of electric energy by any electric utility (other than such State agency), and in the case of an electric utility with respect to which the Tennessee Valley Authority has ratemaking authority, such term means the Tennessee Valley Authority.

D. Table of Contents

1. Cost-of-Service Standard.
2. Rate Design Standards: Declining Block, Time-of-Day, Seasonal, and Interruptible.
3. Load Management Technique Standard.
4. Master Metering Standard.
5. Automatic Adjustment Clauses Standard.
6. Termination-of-Service Standard.
7. Information to Consumers Standard.
8. Advertising Standard.

E. Cost-of-Service Standard

Under section 111(d)(1) of PURPA, the following is established as a Federal standard: rates charged by any electric utility for providing electric service to each class of electric consumers shall be designed, to the maximum extent practicable, to reflect the costs of providing electric service to such class. In addition, section 115(a) of PURPA requires that when a State regulatory authority or nonregulated utility prescribes methods for undertaking cost-of-service studies, it should take into account the extent to which total costs to an electric utility are likely to change if additional capacity is added to meet peak demand relative to base demand and additional kilowatt-hours of electric energy are delivered to electric consumers.

1. Costing procedures. Marginal costing procedures, rather than embedded costing procedures, should be used in determining cost of service for the following reasons:

a. Although Title I of PURPA does not specifically mention marginal costs (nor does it specifically mention accounting methods or embedded costs), DOE interprets section 115(a) as establishing marginal costing principles and requiring that these be taken into account in considering the cost-of-service standard.

b. Marginal costing procedures are more likely to be consistent with the PURPA objectives of coefficient use of facilities and resources and energy conservation than embedded costing procedures. In an economy where resources, and in particular fossil fuels, are scarce, the production of a good or

service must be justified by the satisfaction individuals obtain from the consumption of that good or service. Scarce resources should be used to produce a good, only if consumers are willing to pay a price for it which equals or exceeds the value of the resources needed to produce it. If consumers are not willing to pay such a price, scarce resources should not be used to produce that good but should instead be used to produce other goods for which consumers are willing to pay a price equal to the value of the resources used in production.

In order for scarce fuels to be used efficiently, consumers of electricity should face a price which reflects to the maximum extent practicable the real resource cost of producing one more or one less kilowatt-hour or kilowatt. When confronted with such a price consumers can more accurately determine whether they want additional scarce resources to be used to produce more electricity or whether they would prefer that those resources be used to produce other goods. Under average cost pricing consumers' decisions to purchase or not to purchase an additional unit of electricity are frequently not based on adequate information about real resource costs. As a consequence, in any rating period more (if average costs are less than marginal costs) or less (if average costs are more than marginal costs) electricity is consumed than consumers would be willing to pay for if prices reflected marginal costs. As a consequence, scarce resources are not used in that rating period in a manner which will best satisfy consumers' needs.

c. In an economic sense, nondiscriminatory or equitable treatment of both users and nonusers of solar energy and renewable resource systems is more likely to occur if electricity rates for both are based on marginal costs than if rates for both are based on embedded costs. To the extent practicable, marginal costing procedures will result in equal treatment for all customers who impose the same costs (for a kilowatt-hour or a kilowatt of demand) on an electric utility. Customers who impose different levels of cost (for a kilowatt-hour or a kilowatt of demand) will be treated differently but only to the degree indicated by differences in the costs they impose on the utility.

With respect to solar energy and renewable resource systems, rates that reflect marginal cost of service will encourage use of these systems commensurate with the costs of the resources needed to build and operate

them, and the costs of alternate approaches to meeting the nation's energy needs. Economic discrimination, whether favorable or unfavorable to solar energy and renewable resource systems, does not occur under marginal cost pricing.

Energy Savings. Solar energy and renewable resource systems will reduce the amount of electric energy consumed by conventional electric end-use devices which they displace in whole or in part. As a consequence, scarce fossil fuels will be conserved. The potential impact of solar energy and renewable resource technologies on customers' demand for electric energy need not, however, delay construction of new nuclear or coal capacity, which would replace existing oil and gas baseload capacity. Replacement of oil and gas baseload capacity should still occur to the extent economically justified.

To determine the savings in scarce fossil fuels that may accrue to the electric utility as a consequence of the use and introduction of solar energy and renewable resource systems, the following should be considered:

- a. Local meteorological conditions—how they affect the operation of solar energy and renewable resource systems and thus the utility's load curves;
- b. Timing of a utility's peak demand;
- c. Storage capacity of solar energy and renewable resource systems;
- d. Extent of solar penetration;
- e. Reliability of solar energy and renewable resource systems;
- f. Utility fuel mix as a function of load range; and
- g. Characteristics of the solar energy and renewable resource system load.

F. Rate Design Standards: Declining Block, Time-of-Day, Seasonal, and Interruptible

Section 111(d) (2) through (5) of PURPA establishes Federal standards with respect to declining block rates, time-of-day rates, seasonal rates, and interruptible rates. These standards provide that declining block energy charges that are not cost-based shall be eliminated; time-of-day rates shall be established, if cost-effective, where rates vary by time-of-day; seasonal rates shall be established where costs vary by season; and interruptible rates based on the costs of providing interruptible service shall be offered to commercial and industrial customers.

1. Nondiscriminatory rates. Whether time-of-day, seasonal, interruptible, and declining block rates are discriminatory in an economic sense depends on whether and how well they track marginal costs. Rates that do not reflect marginal costs to the maximum extent

practicable are likely to be discriminatory in an economic sense, whereas, rates that do reflect marginal costs to the maximum extent practicable are likely to be nondiscriminatory in an economic sense.

Two consequences may result from the economic discrimination brought about by rates which do not reflect marginal costs. On the one hand, levels of investment in solar energy and renewable resource systems may be lower and, consequently, savings of oil and gas may be smaller than would result with marginal cost-based rates. That is, fewer customers may invest in solar energy and renewable resource systems and those that do may build systems with smaller energy displacement capability, smaller storage capacity, and more limited control capability for the operation of storage systems than they would under marginal cost-based rates. On the other hand, if rates economically discriminate in favor of solar energy and renewable resource customers, more customers may invest in solar energy and renewable resource systems and may build larger systems than would with marginal cost-based rates. In this situation, many of those who do not invest in solar energy and renewable resource systems will pay higher bills and subsidize the consumption of electricity by those who do invest in these systems.

2. Time-of-day and seasonal rates.

When time-of-day and seasonal rates are based on marginal costs, a customer is provided with an incentive to shift consumption from times of high marginal cost (peak period) to times of low marginal cost (offpeak period). Solar energy and renewable resource systems permit a customer to maintain consumption during the peak period and yet avoid the high costs of electrical energy. Inclusion of chargeable storage capability in these systems will permit further displacement of onpeak electric consumption (if meteorological conditions affect functioning) and may permit displacement of offpeak consumption.

As provided for in section 115 of PURPA, time-of-day rates are determined to be cost-effective if the long-run benefits to the electric utility and its electric customers are likely to exceed metering and other associated costs. Where metering costs for time-of-day rates are not justified by the benefits, seasonal rates which track marginal costs may be an appropriate alternative. Such rates do not require the installation of meters and may permit nondiscriminatory treatment, in an economic sense, of customers.

3. Interruptible rates. Interruptible rates and-or offpeak storage rates which are based on marginal costs may also be effective rate designs for solar energy and renewable resource systems. These rates provide incentives for solar energy and renewable resource investments and provide a means of limiting the effect high levels of market penetration by these systems may have on utility peak demand. In comparison with other rate designs, interruptible rates may produce lower electric bills for solar energy and renewable resource customers. In addition, they can assure peak period capacity savings from these customers.

4. Revenue related rate adjustments. With rate-of-return regulation, it may not be possible to set prices equal to marginal costs without exceeding or falling short of a utility's allowed revenue level. Under these circumstances adjustments to marginal cost-based rates may be required. These adjustments should be made in a manner which minimizes any losses in the efficient use of resources and facilities. DOE recognizes that the adjustments to be made in any instance will also be influenced by equity considerations; however, the adjustments should be reviewed in terms of their discriminatory consequences, for or against, solar energy and renewable resource customers.

5. Customer class. For ratemaking purposes, a separate class or classes for solar energy and renewable resource customers should be established if the load curves of and costs to serve these customers vary significantly from the load curves and costs to serve customers in the existing rate class of which solar customers would be a part. In general, the creation of a separate tariff class or modification of an existing one for application to customers using solar energy and renewable resource systems should satisfy the following conditions:

a. The costs of serving the solar group load pattern differs substantially from those imposed by the existing customer classes;

b. There is no reasonably available method of reflecting these cost differences within the existing classes;

c. The solar group is discretely identifiable; and

d. The costs of administration (including separate billing or special metering equipment) are not excessive.

Consistent with these criteria, a separate customer class may be established if solar energy and renewable resource systems possess special characteristics which offer

unique opportunities in rate design to promote their use as load management devices. Rates offered to customers in this class should reflect marginal costs of service.

6. Fuel adjustment clauses. To the maximum extent practicable, the fuel cost surcharge imposed under a fuel adjustment clause should be time differentiated on a marginal cost basis. A nontime differentiated surcharge raises offpeak electricity rates proportionately more than onpeak electricity rates. As a consequence, the incorporation of chargeable storage capacity in solar energy and renewable resource systems is discouraged.

G. Load Management Techniques Standard

Under section 111(d)(6) of PURPA, electric utilities are required to offer to customers load management techniques which a State regulatory authority or nonregulated electric utility determines are practicable, cost-effective, reliable, and will provide useful energy or capacity management advantages. A load management technique is cost-effective if it is likely to reduce maximum kilowatt demand and the long-run cost savings to the utility of such reduction are likely to exceed the long-run costs to the utility associated with implementation.

With chargeable storage capacity, solar energy and renewable resource systems may provide substantial load management benefits within the definition provided in section 3(8) of PURPA. Utilities should be encouraged to provide information about the load management implications of solar energy and renewable resource systems. In addition, when a utility is assessing alternative load management options, solar energy and renewable resource systems should be considered in that assessment.

Any evaluation of the load management potential of solar energy and renewable resource systems should address the following:

1. Effect on utility load curve, i.e., predictability of solar energy and renewable resource customer demand;
2. Utility fuel mix by load type;
3. Costs associated with load management potential of solar energy and renewable resource systems;
4. Interface with other load management techniques;
5. Levels of penetration necessary to produce a beneficial impact; and
6. Utility system reliability.

H. Master Metering Standard

Section 115(d) of PURPA requires separate metering for any new building

if there is more than one unit in the building, the occupant controls a portion of the electric energy used in his unit, and with respect to such portion of electric energy, the long-run benefits to the electric consumers in the building exceed the costs of purchasing and installing separate meters in the building.

In requiring that the master metering standard be considered, Congress sought to encourage conservation of energy. Separate metering of individual units provides consumers with information about the direct costs of their consumption and improves their ability to determine how they would like scarce resources to be used. In making determinations on the master metering standard Congress intended that State utility regulatory authorities and nonregulated utilities be guided not only by potential energy savings but also by the cost of purchasing and installing individual meters. Under section 115(d)(3) of PURPA, separate metering for any new building is appropriate if the long-run benefits of the meters exceed the costs of purchase and installation.

However, cost-effective use of solar energy and renewable resource options in some facilities may not be possible with separate metering, at least for centralized heating and cooling systems. In such instances, master metering in combination with solar energy and renewable resource systems may be appropriate. Such a combination might produce greater conservation of energy and scarce fossil fuels than would separate metering without solar energy and renewable resource systems. To address this possibility the following should be included in the consideration of this standard:

1. Scarce fossil fuel savings with master metering and separate metering;
2. The life expectancy of the building;
3. The most likely heating and cooling system alternatives and their characteristics; and
4. The possibility of separate metering for a portion of total electric consumption.

I. Automatic Adjustment Clauses Standard

As specified in sections 113(b)(2) and 115(e) of PURPA, automatic adjustment clauses may not be allowed unless they provide incentives to utilities for economic purchase and use of fuel and electric energy. It must be determined, in an evidentiary hearing at least once every 4 years, that an automatic adjustment clause provides such incentives. In addition, at least every 2 years, the clause must be reviewed to insure maximum economies in those operations and purchases which affect the rates to which the clause applies.

Although the standard is primarily procedural in nature, the intent of Congress was to encourage the efficient use of resources and the economical purchase of fuel and electric energy by an electric utility. Consistent with this intent is a consideration by electric utilities of centralized (nondispersed) solar energy and renewable resource technologies as nonconventional means to generate electricity. Prior demonstration that these technologies were evaluated for their usefulness to the electric utility in conserving scarce fossil fuels should be made a condition of approval of an automatic adjustment clause.

In considering solar energy and renewable resource technologies as nonconventional sources for the generation of electricity, a utility should give specific attention to the following:

1. Alternative possible technologies such as:
 - a. Biomass;
 - b. Solar thermal;
 - c. Wind;
 - d. Low head hydro; and
 - e. Photovoltaics.
2. Potential savings in scarce fossil fuel.
3. Alternative means of implementation.

J. Information to Consumers Standard

Section 113(b)(3) of PURPA establishes the information to consumers standard which requires each electric utility to transmit information regarding rate schedules to each of its electric consumers in accordance with the requirements of section 115(f) of PURPA.

Under this standard an electric utility should be required to provide information to customers about the implications of its rate structure for the use of solar energy and renewable resource systems. Possible cost savings a customer with these systems may experience under the utility's rate structure should be identified. In addition, any provision that would allow a solar energy or renewable resource customer to take advantage of a special rate structure or require that he be placed on such a rate structure should be explained.

K. Procedures for Termination of Electric Service Standard

Section 113(b)(4) of PURPA establishes the termination of service standard which requires that electric utilities may not terminate electric service to any electric consumer except pursuant to procedures described in section 115(g). Section 115(g) specifies that no electric service to an electric consumer may be terminated without reasonable prior notice. Also, under

certain circumstances, electric service may not be terminated during any period when termination of service to an electric consumer would be especially dangerous to health.

Specific attention to solar energy and renewable resource technologies is not necessary when considering this standard.

L. Advertising Standard

Section 113(b)(5) (for electric) of PURPA established the advertising standard which requires that an electric utility may not recover from any person other than the shareholders (or other owners) of such utility any direct or indirect expenditure by such utility for promotional or political advertising. Among those advertising expenses identified in PURPA as appropriate for inclusion in electricity bills are advertising which informs electric consumers how they can conserve energy or reduce peak demand for electric energy, and advertising which promotes the use of energy efficient appliances, equipment or services.

In considering this standard specific attention should be given to the implications for solar energy and renewable resources of the Residential Conservation Service Program established by the National Energy Conservation Policy Act of 1978. This program, which is mandatory for all utilities whose annual retail sales of electricity exceed 750 million kilowatt-hours, requires that covered utilities provide certain types of information about suggested residential energy conservation and renewable resource measures to all residential customers. The suggested measures may include solar domestic hot water systems, active solar space heating systems, combined active solar space heating and solar domestic hot water system and passive solar space heating and cooling systems, depending on the service territory and the customer's residential building type.

The information provided to consumers must include the following:

1. A list of the suggested measures;
2. A reasonable estimate of the savings in energy costs which are likely to result from installation of each suggested measure in a typical residence;
3. An offer by the utility to assist the residential customer by arranging for a loan or by arranging for the installation of suggested measures;
4. The offer of a list of contractors, suppliers and lenders who provide services in the utility's service territory and meet certain minimum requirements.

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DEPARTMENT OF ENERGY**Federal Energy Regulatory
Commission****18 CFR Part 292**

[Docket No. RM79-55]

**Small Power Production and
Cogeneration—Rates and Exemptions****AGENCY:** Federal Energy Regulatory
Commission.**ACTION:** Notice of Proposed Rulemaking.

SUMMARY: The proposed rules would implement section 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA). The rules set forth rates for the sale of electric energy between qualifying small power production and cogeneration facilities and electric utilities, and provide for the exemption of qualifying facilities from certain State and Federal regulation. The proposed rules also provide guidelines for the interconnection arrangements between qualifying facilities and electric utilities.

DATE: Written comments by December 1, 1979. Dates of the public hearings will be announced at a later time.

ADDRESS: All responses to reference Docket No. RM79-55, and to be addressed to: Office of the Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426. Locations of the public hearings will be announced at a later time.

FOR FURTHER INFORMATION CONTACT: Adam Wenner, Executive Assistant to the Associate General Counsel, 825 North Capitol Street, N.E., Washington, D.C. 20426 (202) 357-8171.

SUPPLEMENTARY INFORMATION:

Issued: October 18, 1979.

Section 210(a) of the Public Utility
Regulatory Policies Act of 1978 (PURPA)

requires that the Commission prescribe rules as it determines necessary to encourage cogeneration and small power production, requiring electric utilities to offer to:

- (1) Sell electric energy to qualifying cogeneration facilities and qualifying small power production facilities, and
- (2) Purchase electric energy from such facilities.

In addition, section 210(e) of PURPA requires the Commission to prescribe rules under which qualifying cogeneration and small power production facilities are exempted, in whole or in part, from the Federal Power Act, from the Public Utility Holding Company Act of 1935, and from State laws and regulations respecting the rates or respecting the financial or organizational regulation of electric utilities, if the Commission determines such exemption is necessary to encourage cogeneration and small power production.

On June 28, 1979, in Docket No. RM79-54, the Commission issued proposed rules regarding the determination of which cogeneration and small power production facilities are qualifying cogeneration facilities or qualifying small power production facilities. Such qualifying facilities are entitled to avail themselves of exemptions set forth in section 210 of PURPA, and are eligible for exemption from the incremental pricing provisions of section 206(c) of the Natural Gas Policy Act of 1978 (Order No. 49, § 282.203(e), issued September 28, 1979, 44 FR 57726).

On June 27, 1979, in Docket No. RM79-55, the Commission issued a Staff discussion paper regarding issues arising under section 210 of PURPA.¹ The Staff discussion paper set forth many legal and policy questions arising under section 210 of PURPA. In addition to those issues, comments received in response to the Staff discussion paper and in the public hearings held in San Francisco, Chicago, and Washington, D.C. in July, 1979 on this topic raised new questions regarding the Commission's responsibility to exercise its authority under section 210. The Commission has taken into consideration these questions and comments in developing this proposed rulemaking.

¹ The Staff discussion paper in Docket No. RM79-55 concerned subjects also addressed in this proposed rulemaking. Since interested persons may submit comments in response to this rulemaking, the deadline for the filing of comments on the Staff discussion paper was not extended beyond the original deadline of August 1, 1979.

Summary

The proposed rules provide that electric utilities must purchase electric energy and capacity made available by qualifying cogenerators and small power producers at a rate reflecting the cost that the purchasing utility can avoid as a result of obtaining energy and capacity from these sources, rather than generating an equivalent amount of energy itself or purchasing the energy from other suppliers. To enable potential cogenerators and small power producers to be able to estimate these avoided costs, the rules require electric utilities to furnish data with regard to present and future costs of energy and capacity on their systems.

These rules also provide that electric utilities must furnish electric energy to qualifying facilities on a non-discriminatory basis, at a rate that is just and reasonable and in the public interest, and must provide certain types of service which may be requested by qualifying facilities to supplement or back up those facilities' own generation.

The rule exempts all qualifying cogeneration facilities and certain qualifying small power production facilities from rate and certain other regulations under the Federal Power Act, from the provisions of the Public Utility Holding Company Act of 1935 related to electric utilities, and from State laws regulating electric utility rates and financial organization.

The implementation of these rules is reserved to the State regulatory authorities and nonregulated electric utilities. Within one year of the issuance of the Commission's rules, each State regulatory authority or nonregulated utility must implement these rules. That implementation may be accomplished by the issuance of regulations, on a case-by-case basis, or any other means reasonably designed to give effect to the Commission's rules.

The Commission observes that this rulemaking represents an effort to evolve concepts in a newly developing area within rigid statutory constraints. The Commission is attempting to afford broad discretion to the State regulatory authorities and nonregulated electric utilities in recognition of the variety of institutional, economic, and local circumstances which may be affected by this proposed rulemaking. In this regard, the Commission seeks the fullest range of comments on the legal authority of proposed Commission action, and on the technical and practical aspects of the proposals set forth in this rulemaking.

Section-by-Section Analysis

Subpart A—Arrangements Between Electric Utilities and Qualifying Cogeneration and Small Power Production Facilities under Section 210 of the Public Utilities Regulatory Policies Act of 1978.

§ 292.101 Scope.

Section 292.101(a) describes the scope of Subpart A of Part 292 of the Commission's rules. Subpart A applies to sales and purchases of electric energy and capacity between qualifying cogeneration and small power production facilities and electric utilities, and actions related to such sales and purchases. Section 292.101(b) provides that the authority of this subpart does not preclude negotiated agreements between qualifying cogenerators or small power producers and electric utilities which differ from rates or terms which would otherwise be required under this subpart. Paragraph (b)(1) reflects the Commission's view that the rate provisions of section 210 of PURPA apply only if a qualifying cogenerator or small power producer chooses to avail itself of the rights and protections set forth in that section. An agreement between an electric utility and a qualifying cogenerator or small power producer to conduct sales or purchases at rates higher or lower, or under terms or conditions different from those set forth in these rules, does not violate the Commission's rules under section 210 of PURPA. Nor would provisions of State law or regulations which provide different incentives for small power production and cogeneration (than are provided in the Commission's rules) be preempted. The Commission recognizes that the ability of a qualifying cogenerator or small power producer to negotiate with an electric utility is buttressed by the existence of the statutory rights and protections of these rules, and the right of State regulatory agencies and nonregulated electric utilities to provide further encouragement of these technologies.

If, prior to the existence of the rights and protections set forth in PURPA, a cogenerator or small power producer entered into a contractual agreement by which he received sufficient financial incentive to sell his electric output to a utility, the encouragement of cogeneration or small power production does not require that he be given additional incentives. Accordingly, paragraph (b)(2) provides that Subpart A will not affect the validity of any contract between a qualifying cogenerator or small power production

facility and an electric utility. At the expiration of the contract, a cogenerator or small power producer will be able to avail himself of these rules.

§ 292.102 Definitions.

This section contains definitions applicable to Subpart A.

Paragraph (a) provides that terms defined in PURPA have the same meaning as they have in PURPA, unless further defined in this part of the Commission's regulations.

Subparagraph (1) defines a qualifying facility as a cogeneration or small power production facility which is a qualifying facility under § 292.208 of the Commission's regulations. Those regulations implement section 201 of PURPA, and are the subject of Docket No. RM79-54.

Subparagraph (2) defines "purchase" as the purchase of electric energy or capacity from a qualifying facility by an electric utility.

Subparagraph (3) defines "sale" as the sale of electric energy or capacity by an electric utility to a qualifying facility.

Subparagraph (4) defines "system emergency" as a condition on a utility's system which is likely to result in disruption of service to a significant number of customers or is likely to endanger life or property.

Subparagraph (5) defines "rate" as any price, rate charge, or classification made, demanded, observed, or received with respect to the sale or purchase of electric energy or capacity, or any rule, regulation, or practice respecting any such rate, charge, or classification, and any contract pertaining to the sale or purchase of electric energy or capacity.

Subparagraph (6) defines "avoided costs" as the costs to an electric utility of energy or capacity or both which, but for the purchase from a qualifying facility, the electric utility would generate or construct itself or purchase from another source. This definition is derived from the concept of "the incremental cost to the electric utility of alternative electric energy" set forth in section 210(d) of PURPA. It includes both the fixed and the running costs on an electric utility system which can be avoided by obtaining energy or capacity from qualifying facilities.

The costs which an electric utility can avoid by making such purchases generally can be classified as "energy" costs or "capacity" costs. Energy costs are the variable costs associated with the production of electric energy (kilowatt-hours). They represent the cost of fuel, and some operating and maintenance expenses. If, by purchasing electric energy from a qualifying facility, a utility can reduce its energy costs or

can avoid purchasing energy from another utility, the rate for a purchase from a qualifying facility is to be based on those energy costs which the utility can thereby avoid.

Capacity costs are the costs associated with providing the capability to deliver energy; they consist primarily of the capital costs of facilities. If a qualifying facility offers energy of sufficient reliability and with sufficient legally enforceable guarantees of deliverability to permit the purchasing electric-utility to avoid the need to construct a generating unit, to enable it to build a smaller, less expensive plant, or to purchase less firm power from another utility, then the rates for such a purchase will be based on the net avoided capacity and energy costs.²

There is considerable language in both the statute and the Conference Report, as well as the Federal Power Act, in support of the proposition that capacity payments are not only legally permitted to be required by the Commission, but also, at least in some circumstances, mandated.

The Conference Report addresses the calculation of the alternative cost standard at some length. The final paragraph of this section of the Report is the following:

²"Net avoided costs" are the excess of the total costs of the system developed in accordance with the utility's optimum capacity expansion plan, excluding the qualifying facility, over the system's total costs (before payment to the qualifying facility) developed in accordance with the utility's optimum capacity expansion plan including the qualifying facility. This concept recognizes that the energy cost associated with a deferred or avoided unit may be different from the energy costs of the qualifying facility which permitted that deferral or avoidance. In determining an optimum capacity expansion plan, a utility must consider both capacity and energy costs in order to minimize the anticipated total system costs. In providing for payments for avoided capacity, the Commission uses the term "net avoided cost" in recognition of the fact that various types of capacity will not produce the same amount of energy, so that some change in the dispatch of generation may be necessary from the remaining plants after a planned unit is deferred and the qualifying facility's capacity is substituted along with other available capacity to produce the same amount of energy at the minimum cost. This is particularly true, for example, where the capacity factor for the qualifying facility is less than the planned capacity factor from a base load (high capacity cost—low energy cost) alternative facility which is deferred. In such a case, although adequate capacity may exist on the system due to the purchase from the qualifying facility in lieu of the deferred base load unit, additional energy costs may be incurred due to increased generation from intermediate plants to make up the difference between the planned generation from the base load plant and the lesser total energy produced by the qualifying facility. Such increased energy cost is appropriately recognized by providing for the payment to the qualifying facility of the net avoided costs. In this way, the ratepayers are assured of paying no more than the total costs that would have been incurred had the unit not been deferred.

The conferees expect that the Commission, in judging whether the electric power supplied by the cogenerator or small power producer will replace future power which the utility would otherwise have to generate itself either through existing capacity or additions to capacity or purchase from other sources, will take into account the reliability of the power supplied by the cogenerator or small power producer by reason of any legally enforceable obligation of such cogenerator or small power producer to supply firm power to the utility.³

The references to "additions to capacity" and to obligations "to supply firm power" (the rates for which, in this Commission's experience, always include a capacity component) lead the Commission to the conclusion that, under Section 210, capacity payments to qualifying facilities can be required under certain circumstances; and that a utility's refusal to make payments based in part on avoided capacity payments could be discriminatory.

In addition, the Commission notes that the statutory language used in the Federal Power Act uses the term "electric energy" to describe the rates for sales or resale in interstate commerce. Demand or capacity rates are a traditional part of such rates. The term "electric energy" is used throughout the Act to refer both to electric energy and capacity. The Commission does not find any evidence that the term "electric energy" in section 210 of PURPA was intended to refer only to fuel and operating and maintenance expenses, instead of all of the costs associated with the provision of electric service.

To interpret this phrase to include only the energy would lead to the conclusion that the rates for sales to qualifying facilities only include the energy component of the rate. It is the Commission's belief that this was not the intended result, and thus provides an additional reason to interpret the phrase electric energy to include both energy and capacity.

§ 292.103 Availability of electric utility system cost data.

In order to be able to evaluate the financial viability of a cogeneration or small power production facility, an investor needs to be able to ascertain, before construction of a facility, the expected return on a potential investment. This return will be determined in part by the price at which the qualifying facility can sell its electric output. Under § 292.105 of these rules, the rate at which a utility must purchase

³Conference Report on H.R. 4018, Public Utilities Regulatory Policies Act of 1978, H. Rep. No. 1750, 99th Cong., 2d Sess. (1978).

that output is based on the utility's avoided costs.

In order to provide data to qualifying facilities which will assist them in determining the utility's avoided costs, § 292.103(b) of the rules requires electric utilities to make available to cogenerators and small power producers data concerning the present and anticipated future costs of energy and capacity on the utility's system. The data required to be provided to determine these avoided costs will have been prepared in compliance with the Commission's rules implementing section 133 of PURPA.⁴ This section will thus, for the most part, require a table presenting data already developed.

Section 133 of PURPA applies to each electric utility whose total sales of electric energy for purposes other than resale exceeded 500 million kWh during any calendar year beginning after December 31, 1975, and before the immediately preceding calendar year. (The phrase "before the immediately preceding calendar year" refers to the year two years prior to the current year. For example, if an electric utility exceeded the 500 million kWh limit both during 1976 and 1979, it must comply with section 133 requirements in 1981.) Section 290.102(d) of the Commission's rules implementing section 133 of PURPA granted an extension until June 30, 1982,⁵ to electric utilities covered by that section having total sales of energy for purposes other than resale of less than 1 billion kWh in each of the calendar years 1976, 1977, and 1978.

The proposed coverage under paragraph (a) of these regulations is the same as that provided pursuant to section 133 of PURPA and the Commission's rules implementing that section, with an exception provided in paragraph (c) as will be discussed.

Paragraph (b) provides that each regulated electric utility must furnish to the State regulatory authority, and maintain for public inspection, data

⁴For example, § 290.303(h) of the Commission's rules implementing section 133 of PURPA requires such electric utilities to report marginal energy costs for each month of the reporting period and for each month of the next five years. Section 290.302(g) of these rules requires electric utilities to report the estimated cost, in dollars per kilowatt of generation, of generation units likely to be installed to meet increases in peak demand. Section 290.302(f) requires the reporting of estimates, for the next ten years of information regarding total system capacity, and capacity to be supplied by other utilities.

⁵Docket No. RM79-6, issued June 5, 1979, granted an extension until May 31, 1982, to electric utilities having total sales of electric energy for purposes other than resale of less than 1 billion kilowatt-hours in each of the calendar years 1976, 1977, and 1978. The Commission recently issued revised regulations in this docket which extended this date to June 30, 1982.

related to the costs of energy and capacity of the electric utility's system. Each nonregulated electric utility must maintain such data for public inspection.

Subparagraph (1) requires each electric utility to provide the estimated avoided cost of energy on its system for various levels of purchases from qualifying facilities. The levels of purchases are to be stated in blocks of one hundred megawatts or less for systems with peak demand of 1000 megawatts or more, and in blocks equivalent to not more than ten percent of system peak demand for systems less than 1000 megawatts. This information is to be stated on a cents per kilowatt-hour basis, for daily and seasonal peak and off-peak periods, for the immediately preceding year, and on an estimated cents per kWh basis for the current calendar year and for each of the next five years.

Subparagraph (2) requires each electric utility to provide its schedule for the addition of capacity, planned purchases of firm energy and capacity, and planned capacity retirements for each of the next 10 years.

Subparagraph (3) requires each electric utility to provide the estimated costs at completion, on the basis of dollars per kilowatt, of planned capacity additions, including planned firm purchases.

Qualifying facilities may wish to sell energy or capacity to electric utilities which are not subject to the reporting requirements of paragraph (b). In that event, paragraph (c) provides that, upon request of a qualifying facility, an electric utility not otherwise covered by paragraph (b) must provide sufficient data to enable the cogenerator or small power producer to determine the utility's avoided costs. If such utility refuses to supply the requested data, the qualifying facility may apply to this Commission for an order requiring that the information be supplied. The Commission, in considering such applications, will take into account the burden on the utility.

A non-generating electric utility which does not own or plan to acquire generating capacity may incorporate the data provided by each of its supplying utilities in its compliance with the provisions of this section.

§ 292.104 *Electric utility obligations under this subpart.*

Section 210(a) of PURPA provides that the Commission shall prescribe rules requiring electric utilities to offer to purchase electric energy from qualifying facilities. The Commission interprets this provision to impose on electric utilities an obligation to purchase all

electric energy and capacity made available from qualifying facilities, except during periods prescribed in § 292.105(e) and during system emergencies.

There are several circumstances in which a qualifying facility might desire that the electric utility with which it is interconnected not be the purchaser of the qualifying facility's energy and capacity, but would prefer instead that an electric utility with which the purchasing utility is interconnected make such a purchase. If, for example, the purchasing utility is a non-generating utility, its avoided costs will be the price of bulk purchased power ordinarily based on an average figure representing the average cost of energy and capacity on the supplying utility's system. As a result, the rate to the qualifying facility would be based on those average costs. If, however, the qualifying facility's output were purchased by the supplying utility, its output could replace energy supplied by specific peaking units, and its capacity might enable the supplying utility to avoid the addition of new capacity. The costs, and thus the avoided costs, of peaking energy and new capacity are generally greater than system average figures.

Under these proposed rules, certain small electric utilities are not required to provide system cost data, except upon request of a qualifying facility. If, with the consent of the qualifying facility, a small electric utility chooses to transmit energy from the qualifying facility to a second electric utility, the small utility can avoid the otherwise applicable requirements that it provide the system cost data for the qualifying facility and that it purchase the energy itself.

Accordingly, paragraph (d) provides that a utility which receives energy or capacity from a qualifying facility may, with the consent of the qualifying facility, transmit such energy to another electric utility. However, if the first utility does not transmit the purchased energy or capacity, it retains the purchase obligation. Any electric utility to which such energy or capacity is delivered must purchase this energy under the obligations set forth in these rules as if the purchase were made directly from the qualifying facility.⁶

The costs of transmission are not a part of the rate which an electric utility to which energy is transmitted is obligated to pay the qualifying facility.

⁶The Commission notes that while a purchase from a qualifying facility may have value as energy and capacity, what is actually transmitted to the second utility is properly described as electric energy. The utility to which energy is transmitted, however, must pay rates based on energy and capacity value.

These costs are part of the costs of interconnection, and are the responsibility of the qualifying facility under § 292.108 of these rules. However, pursuant to agreement between the qualifying facility and any electric utility which transmits electric energy on behalf of the qualifying facility, the transmitting utility may share the costs of transmission. The electric utility to which the electric energy is transmitted has the obligation to purchase the energy at a rate which reflects the costs that it can avoid as a result of making such a purchase.

Paragraph (b) sets forth the statutory requirement of section 210(a) of PURPA that electric utilities offer to sell electric energy to qualifying facilities. This section creates a Federal right for qualifying facilities to obtain electric service, in addition to any service the electric utility is obligated to provide under State laws.

The Staff discussion paper dealt with the issue of whether there is inherent in section 210 of PURPA the authority to order interconnections between electric utilities and qualifying facilities, or whether qualifying facilities must use the procedures set forth in the new sections 210 and 212 of the Federal Power Act to gain interconnection.⁷ The Commission believes that the requirement to interconnect is within the legal authority of the Commission under section 210 of PURPA, particularly subsumed within the requirement to buy and sell. To hold otherwise would mean that Congress intended to have qualifying facilities go through an extended and expensive proceeding simply to gain interconnection, contrary to the entire thrust of sections 201 and 210 of PURPA.

These sections evince the clear Congressional intent to encourage development of these desirable forms of generation, and to have the commercial development of these facilities proceed expeditiously. In other words, Congress has already made the judgment that these kinds of facilities serve one of the purposes of the Act as set out in section 101, *viz.*, "the optimization of the efficiency of use of facilities and resources by electric utilities", and it would be both redundant and unduly burdensome to have the sponsors of individual facilities show in an evidentiary hearing conducted under section 210 of the Federal Power Act that their project in particular would serve this end (or one of the other related goals established as criteria for an interconnection order in section 210(c)(2)). The purpose of an

interconnection application, whether under section 202 or 210 of the FPA, is to secure service, whether emergency or otherwise; and section 210 of PURPA establishes the entitlement of a qualifying facility to service from the interconnected utility. In effect, the proponents of the view that a qualifying facility must apply under sections 210 and 212 of the FPA have the burden of showing that Congress intended interconnection and the entitlement to buy and sell be denied to a qualifying facility which is unable to make the showings required by those sections, especially in light of the fact that a previously interconnected customer installing qualifying facilities would not have to so apply.

This is not to say that all of the protections that Congress has given the target of an interconnection application in sections 210 and 212 of the FPA are necessarily absent from section 210 of PURPA. The Conference Report on section 210 states that customers of utilities are not to be compelled to subsidize qualifying facilities, and this principle would seem to bear on the question of who pays the costs of interconnection as well as on the per-unit price to be paid for energy. On the other hand, the Conference Report includes a proscription against "unreasonable rate structure impediments, such as unreasonable hook up charges." This provides another argument in favor of reading section 210 of PURPA as including interconnection authority, since the elaborate cost determination required under sections 210 and 212 of the FPA is redundant if the costs of interconnection are viewed simply as a feature of the rate structure with the charge therefor based on the cost of the utility. However, the Commission does view section 210 of the FPA as an alternate avenue for remedy available to any qualifying facility which wishes to apply under it.

The obligation to interconnect can be part of either an electric utility's option to purchase from or sell to a qualifying facility. With regard to the obligation to sell, State law ordinarily sets out the obligation of an electric utility to provide service to customers located within its service area. The Commission believes that State law will normally impose on an electric utility the obligation to interconnect and that the Commission's proposal will not, in most instances, impose any additional obligation on electric utilities.

As noted in the Staff discussion paper, by installing certain equipment, an electric utility can be protected from disruption of its operations caused by a

qualifying facility. The Commission has not received comments which disagree with this understanding. Therefore, through the allocation of the costs associated with such equipment to the qualifying facilities, as provided in § 292.109, and through the imposition of standards for operating reliability under § 292.110, appropriate physical and financial protection for the electric utilities is provided in the Commission's proposed rules.

Several commentors urged that the Commission require electric utilities to offer to operate in parallel with a qualifying facility. By operating in parallel, a qualifying facility is enabled automatically to export any electric energy which is not consumed by its own load. Therefore, provided that the qualifying facility complies with the standards set forth in § 292.110 regarding operating reliability, the Commission proposes in paragraph (e) that electric utilities be required to offer to operate in parallel with a qualifying facility.

§ 292.105 Rates for purchases.

Section 210(b) of PURPA provides that in requiring any electric utility to purchase electric energy from a qualifying facility, the Commission must insure that the rates for such purchases be just and reasonable to the electric consumers of the purchasing utility, in the public interest, nondiscriminatory to qualifying facilities, and that they not exceed the incremental costs of alternative electric energy (the costs of energy, which, but for the purchase, the utility would generate from another source).

Types of Purchases

In implementing this statutory standard, it is helpful to review industry practice respecting sales between utilities. Sales of electric power are ordinarily classified as either firm sales, where the seller provides power at the customer's request, or non-firm power sales, where the seller and not the buyer makes the decision whether or not power is to be available. Rates for firm power purchases include payments for the cost of fuel and operating expenses, and also for the fixed costs associated with the construction of generating units needed to provide power at the purchaser's discretion. The degree of certainty of deliverability required to constitute "firm power" can ordinarily be obtained only if a utility has several generating units and adequate reserve capacity. The capacity payment, or demand charge, will reflect the cost of the utility's generating units and the

⁷ Staff discussion paper, *supra.*, at 10-14.

associated costs of assuring that firm power will be available on demand.

In contrast, the ability to provide electric power at the selling utility's discretion imposes no requirement for the construction of capacity on the seller. In order to provide power to customers at the seller's discretion, the selling utility needs only to provide for the cost of operating its generating units. These costs, called "energy" costs, ordinarily are the ones associated with non-firm sales of power.

Purchases of power from qualifying facilities will fall somewhere on the continuum between these two types of electric service. Thus, for example, wind machines that furnish power only when wind velocity exceeds twelve miles per hour may be so uncertain in availability of output as only to permit a utility to avoid generating an equivalent amount of energy. The utility must continue to provide capacity that is available to meet the needs of its customers. Rates for such sporadic purchases should thus be based on the utility system's avoided incremental cost of energy (system lambda), and not based on avoided capacity.

On the other hand, photovoltaic cells, although subject to some uncertainty in power output, have the general advantage of providing their maximum power coincident with the system peak when used on a summer peaking system. The value of such power is greater to the utility than power delivered during off-peak periods. Since the need for capacity is based on system peaks, the qualifying facility's coincidence with the system peak should be reflected in the allowance of some capacity value and an energy component that reflects the avoided energy costs at the time of the peak.

A facility burning municipal waste or biomass can operate more predictably and reliably than solar or wind systems. It can schedule its outages during times when demand on the utility's system is low. If such a unit demonstrates a degree of reliability that would permit the utility to defer or avoid construction of a generating unit or the purchase of firm power from another utility, then the rate for such a purchase should be based on the avoidance of both energy and the capacity costs.

In order to be able to defer or cancel the construction of new generating units, a utility must obtain a commitment, sufficiently ahead of the lead time for the construction of its own new capacity, that provides contractual or other legally enforceable assurances that capacity from alternative sources will be available. If a qualifying facility makes such a commitment, the

Commission believes that, as a matter of both policy and interpretation of section 210, the qualifying facility is entitled to receive rates based on the utility's avoided costs resulting from the capacity the qualifying facility supplies. Moreover, if a cogenerator or small power producer were permitted to receive only the energy (fuel, and operating and maintenance) expenses which the purchasing utility can avoid—while the cogenerator or small power producer must himself invest in new, and often highly capital-intensive, machinery—these potential sources of energy may go undeveloped. In light of the Commission's statutory obligation to encourage cogeneration and small power production, the Commission believe that a proper interpretation of "the incremental costs of alternative electric energy" requires that, when purchases of energy can substitute for intermediate, or base-load, the rate to the cogenerator or small power producer include the net avoided capacity and energy costs.

If a qualifying facility opts to receive rates based on avoided energy costs, such rates should reflect the energy costs of the electric utility's units which otherwise would have been operated. The Commission believes that there are a variety of acceptable ways to carry out this policy at the State level. The general concept here is that rates for purchases from the qualifying facility would be based on the highest energy cost unit then operating. The qualifying facility would continue to be dispatched until the cost of energy from the utility's generating unit with the highest energy costs is lower than the price at which the qualifying facility wishes to sell.

The Commission neither expects nor requires that the determination of utilities' avoided costs will be so precise. By definition, these costs are based on estimates of costs which would be incurred if certain events were to take place. Electric rates are ordinarily calculated on the basis of averaging. So long as a rate for purchases reasonably accounts for the avoided costs, and does not fail to provide the required encouragement of cogeneration and small power production, it will be considered as implementing these rules.

Paragraph (a) therefore provides that the statutory requirements regarding rates for purchases of energy and capacity from a qualifying facility are satisfied if the rate reflects the avoided costs resulting from such a purchase as determined on the basis of the cost of energy and capacity set forth pursuant to § 292.103(b) or (c).

Method of Implementation

The Commission is required under section 210 of PURPA to prescribe rules requiring electric utilities to offer to sell electric energy to and purchase electric energy from qualifying facilities. Paragraphs (b) and (c) of section 210 set forth the standards regarding the rate at which such purchases and sales shall be made. The implementation of Commission rules promulgating these standards is reserved to the State regulatory authorities and non-regulated utilities, which are required under section 210(f) to implement the Commission's rules.

One major area of concern expressed in comments received from electric utilities, cogenerators and small power producers, and State regulatory authorities has been that the Commission's rules should state general principles sufficient to leave the states and non-regulated utilities flexibility.⁶ The basis for this recommendation is the need for experimentation in a new technological area and in an area that is subject to a variety of State procedures, the diverse nature of cogeneration and small power production systems, and the differences in the costs of energy and capacity on individual electric systems. As a result, while we herein propose that, for example, capacity costs must be paid if a utility can actually avoid the construction or purchase of capacity, our rules will not dictate the method by which such a payment is to be determined. Rather the Commission proposes to leave the selection of a methodology to the States and nonregulated electric utilities, with the understanding that should a State or nonregulated utility not fulfill the intent and purposes of our rules and of section 210 of PURPA, the Commission and others have available the enforcement power set forth in section 210(h) of PURPA to assure compliance. Additionally, the Commission is authorized to revise these rules in the future to provide greater specificity to these rules if that is necessary.

Paragraph (b) requires electric utilities, on request of a qualifying facility, to promulgate a tariff or other method for establishing rates for purchases from qualifying facilities of ten kilowatts or less. In Docket No. RM79-54 the Commission proposed a minimum size limitation for qualifying facilities of ten kilowatts. However,

⁶ Comments of American Electric Power, filed August 1, 1979, at 2-3; Comments of Electric Consumer Resource Council (ELCON), filed August 1, 1979, at 6; Comments of the National Association of Regulatory Utility Commissioners (NARUC), filed August 1, 1979, at 2-5.

comments received in response to that proposed rulemaking indicate that such a limitation could hamper the development of auxiliary solar and wind power units. Without finally determining that question in this rulemaking, it appears to the Commission that the burden of interconnected operation on both utilities and qualifying facilities can be minimized if standard tariffs are used.

Some utilities already have such tariffs in effect. For units of ten kilowatts or less, it is likely that few changes in the utility's distribution system would be required. For example, an electric utility might offer to permit certain customers to reverse their electric meters, thus permitting consumption by the customer. While the Commission will deal more extensively with the matter of a size limitation for qualifying facilities in its final rule in Docket No. RM79-54, the Commission solicits comment here on the merits of requiring utilities to promulgate tariffs* for qualifying facilities of ten kilowatts or less.

Paragraph (c) concerns a problem arising in the implementation of the concept of avoided costs. At the time that a qualifying facility delivers electric energy to an electric utility, that utility can determine its system lambda and thus calculate the costs it can avoid by making the purchase. Subparagraph (1) therefore provides rates for purchases made on an "as available" basis may be based on the purchasing utility's avoided energy costs.

In order to establish certainty of future revenue, a qualifying facility might seek to obtain a contract from a utility providing that the utility will pay a certain price for energy from a qualifying facility, under specified terms and conditions. Indeed, a qualifying facility desiring to obtain capacity credit must provide the purchasing utility with assurance that such capacity will continue to be available.

In the case of future purchases pursuant to a legally enforceable obligation, the utility's avoided energy or capacity costs may be based on the costs of production facilities which are not built and for which the only available cost data are estimates. When the qualifying facility actually supplies electricity, the utility's avoided costs may deviate from these estimated figures. The Commission believes that these potential deviations are a normal result of risk allocation resulting from contractual commitments or other legal obligations, and believes that they must be permitted if the Commission is to fulfill its mandate to encourage cogeneration and small power

production. Accordingly, subparagraph (2) provides that rates for such purchases may be based on future estimated utility costs of energy or capacity regardless of whether these estimated costs actually track the actual costs that are incurred.

Paragraph (d) sets forth factors on the basis of which the State regulatory authority or nonregulated utility should determine a utility's avoided costs. These principles relate both to the quality of power available from the qualifying facility and its ability to displace or replace energy and capacity on the utility's system.

Subparagraph (1) deals with the availability of capacity from a qualifying facility during system daily and seasonal peak periods. If a qualifying facility can provide energy to a utility during peak periods when the electric utility is running its most expensive generating units, this energy has a higher value to the utility than energy supplied during offpeak periods during which only units with lower running costs are operating. Ideally, the rates for purchases would reflect the cost in the purchasing utility's system at the precise moment when such energy is supplied. The metering equipment that would be required to ascertain these times of delivery with the requisite specificity may be either unavailable or prohibitively expensive. To the extent that such metering equipment is available, however, the State or nonregulated utility should take into account the time at which the purchase from a qualifying facility is made.

Clauses (i), (ii), (iii), (iv), and (v) deal with the reliability of a qualifying facility. When an electric utility provides power from its own generating units or from those of another electric utility, it normally controls the production of such power from a central location. The ability to so control power production enhances a utility's ability to respond to changes in demand and thereby enhances the value of that power to the utility. A qualifying facility may be able to enter into an arrangement with the utility which gives the utility the advantage of dispatching the facility.*

Clause (ii) refers to a qualifying facility's ability and willingness to provide power and energy during system emergencies. Section 292.109 of these proposed regulations concerns the provision of electric services during system emergencies. It provides that, to the extent that a qualifying facility is willing to forego its own use of energy

during system emergencies and provide power to a utility's system, the rate for purchases from the qualifying facility should reflect the value of that service. Small power production and cogeneration facilities could provide significant back-up capability to electric systems during emergencies. One benefit of the encouragement of interconnected cogeneration and small power production may be to increase overall system reliability during such emergency conditions. Any such benefit should be reflected in the rate for purchases from such qualifying facilities.

Clause (iii) deals with periods during which a qualifying facility is unable to provide power. Electric utilities schedule maintenance outages for their own generating units at periods during which demand is low. If a qualifying facility can similarly schedule its maintenance outages during periods of low demand, or during periods in which a utility's capacity will be adequate to handle existing demand, it will enable the utility to avoid the necessity to provide redundant capacity. With regard to forced or unscheduled outages, addressed in clause (iv), it is clear that a utility cannot avoid the construction or purchase of capacity if it is likely that the qualifying facility which would replace such capacity may go out of service during the period when the utility needs its power to meet demand. Based on estimated and demonstrated reliability of the qualifying facility, the rate for purchases from a qualifying facility should be adjusted to reflect its forced and scheduled outage rate.

Subclause (v) refers to the length of time during which the qualifying facility has contractually or otherwise guaranteed that it will supply energy or capacity to the electric utility. A utility-owned generating unit normally will supply power for the life of the plant, or until it is replaced by more efficient capacity. In contrast, a cogeneration or small power production unit might cease to produce power as a result of changes in the industry or in the industrial processes utilized. Accordingly, the value of service from the qualifying facility to the electric utility will be affected by the degree to which the qualifying facility contractually insures that it will continue to provide power. In order to provide capacity value to an electric utility a qualifying facility need not necessarily agree to provide power for the life of the plant. A utility's generation expansion plans normally include temporary purchases of firm power from other utilities in years preceding the addition of a major

* See comments of Hawaiian Electric Company, filed July 27, 1979, at 2.

generation unit. If a qualifying facility contracts to deliver power, for example, for a one year period, it may enable the purchasing utility to avoid entering into a bulk power purchase arrangement with another utility. The rate for such a purchase should thus be based on the price that such power is purchased, or can be expected to be purchased, based upon bona fide offers from another utility.

Subparagraph (2) concerns the relationship of energy or capacity from a qualifying facility to the purchasing electric utility's need for such energy or capacity. If an electric utility has sufficient capacity to meet its demands and is not planning to add any new capacity to its system, then the availability of capacity from qualifying facilities will not immediately enable the utility to avoid any capacity costs.¹⁰ This is not to say that electric utilities with systems which have excess capacity need not make purchases from qualifying facilities; qualifying facilities may obtain payment for the avoided energy costs on a purchasing utility's system. Utility systems with excess capacity normally have intermediate or peaking units which use fossil fuel. As a result, during peak hours the energy costs on the systems are high, and thus the rate to a qualifying utility from which the electric utility purchases energy should similarly be high. In addition, an electric utility system with excess capacity may nevertheless plan to add new, more efficient capacity to its system. If purchases from qualifying facilities enable a utility to defer or avoid these new planned capacity additions the rate for such purchases should reflect the avoided costs of these additions.

Clause (i) of subparagraph (2) refers to the aggregate capability of capacity from qualifying facilities to displace existing or planned utility capacity. In some instances, the small amounts of capacity provided from qualifying facilities taken individually might not enable a purchasing utility to defer or avoid scheduled capacity additions or purchases. The aggregate capability of such purchases, may, however, be sufficient to permit the deferral or avoidance of a capacity addition. Moreover, while an individual qualifying facility may not provide the equivalent of firm power to the electric utility, the diversity of these facilities may collectively reflect the equivalent of firm power. The States and nonregulated utilities should attempt to devise rate

mechanisms which will appropriately compensate qualifying facilities whose aggregate capacity enables the purchasing utility to defer or avoid capacity additions.

Clause (ii) refers to the fact that the lead time associated with the addition of capacity from qualifying facilities may be less than the lead time that would have been required if the purchasing utility had constructed its own generating unit. Such reduced lead time might produce savings in the utility's total power production cost.

Subparagraph (3) addresses the cost of savings resulting from line losses. In determining an appropriate rate for purchases from a qualifying facility the rate should reflect the cost savings actually accruing to the electric utility. If energy produced from a qualifying facility undergoes line losses such that the delivered power is not equivalent to the source of power it replaces, then the qualifying facility should be reimbursed only for the equivalent amount. If the load served by the qualifying facility is closer to the qualifying facility than it is to the utility, it is possible that there may be net savings resulting from reduced line losses. In such cases, the rates should be adjusted upwards.

Subparagraph (4) provides that an electric utility will not be required to purchase energy and capacity from qualifying facilities during periods in which such purchases might result in net increased operating costs to the electric utility. Identification of these periods will be made by the State regulatory authority which has jurisdiction over the utility or by the nonregulated electric utilities. Comments received in response to the Staff discussion paper noted that if, for example, during low load periods, a utility were operating a nuclear plant as its most expensive unit, and were forced to cut back output from such a unit in order to accommodate a purchase from a qualifying facility, the utility would experience increased costs in increasing the output from the nuclear facility when the system demand increases.¹¹

Thus, because the avoided cost is zero or actually involves expense to the utility, requiring the utility to purchase energy from a qualifying facility during such a period would not be just and reasonable to the consumers of the electric utility, because it would result in increased costs to the system's rate payers. Under the proposed § 292.104(a) an electric utility would not be required to make energy purchases during such a period.

¹¹ Comments of Commonwealth Edison Company, filed August 1, 1979 at 4.

Tax Issues

The Statement of the Committee of Conference states that

... the examination of the level of rates which should apply to the purchase by the utility of the cogenerator's or the small power producer's power should not be burdened by the same examination as are utility rate applications to determine what is the just and reasonable rate that they should receive for their electric power.

We note that section 301(b)(2) of the Energy Tax Act of 1978¹² made eligible for increased business investment tax credit certain property that may be used by small power producers or cogenerators. However, section 301(b)(2)(B) excludes from such eligibility property "which is public utility property (within the meaning of section 46(f)(5) of the Internal Revenue Code of 1954)."¹³ As a result, if a qualifying facility were to be classified as a public utility under section 46(f)(5) of the Internal Revenue Code, it would not be eligible for the increased investment tax credit otherwise available.

The Commission notes that a recent change¹⁴ in Treasury Department regulations amended the definition of the exclusion "public utility property" for purposes of eligibility for the investment tax credit so as to exclude [from the definition] property used in the business of the furnishing or sale of electric energy if the rates are not subject to regulation that fixes a rate of return on investment. Prior to the change, any rate regulation made property subject thereto (and involved in the furnishing or sale of energy) public utility property.

The Commission observes that the rates for purchases set forth in this rulemaking for purchases of energy from qualifying facilities are *not* based on a rate of return on investment. As a result, the Commission believes that property owned by qualifying facilities should not be classified as public utility property under section 46(f)(5) of the Internal Revenue Code of 1954. If such property is not classified as public utility property, the qualifying facility will be eligible to receive the additional investment tax credit set out in section 301(b) of the Energy Tax Act of 1978. The Commission wishes to express its opinion on this matter in an effort to further encourage cogeneration and small power production by means of this rulemaking process.

¹² Pub. L. No. 95-618, 28 U.S.C. §§ 48, 48, November 9, 1978.

¹³ 21 U.S.C. § 48(e)(3)(b).

¹⁴ Treasury Reg. § 1.46-3(g)(2), T.D. 7602 (March 23, 1979).

§ 292.106 Rates for sales.

Section 210(c) of PURPA provides that the rules requiring utilities to sell electric energy to qualifying facilities shall ensure that the rates for such sales are just and reasonable, in the public interest, and nondiscriminatory against qualifying cogenerators or small power producers. As noted in the Staff discussion paper,¹⁵ this section contemplates rates formulated on the basis of traditional ratemaking (*i.e.*, cost of service) concepts.

Paragraph (a) provides that rates for sales from electric utilities to qualifying facilities shall not be discriminatory against such facilities in comparison to rates to other customers served by the electric utility. Paragraph (a) also states that such rates shall be just and reasonable and in the public interest.

A qualifying facility is entitled to purchase back-up or standby power at a rate which reflects the probability that the qualifying facility will or will not contribute to the need for utility capacity and the use of utility capacity.¹⁶ Thus, when the utility must reserve capacity to provide service to a qualifying facility, the costs associated with that reservation are properly recoverable from the qualifying facility if the utility would assess these costs to non-generating customers.¹⁷

Paragraph (b) provides that electric utilities must provide to qualifying facilities any services which would be provided by the electric utility to a retail customer who does not have his own generation.

Normally the determination of an appropriate rate to a class of customers is based on an examination of load data relating to such customers. At this time, however, even those utilities which have good load data regarding existing customer classes do not have load data regarding usage by qualifying cogeneration and small power production facilities. Until such data is collected, the Commission believes that rates for sales to qualifying facilities should be at least as favorable as those available to utility customers having comparable load characteristics or falling under similar load classifications.

Paragraph (c) sets forth certain types of service which electric utilities are required to provide to qualifying facilities even if such types of service are not provided to other customers. These types of service are: supplementary power, back-up power,

interruptible power, and maintenance power. The Commission believes that this requirement is necessary to encourage small power production and cogeneration.

Supplementary power is power used by a facility in addition to that which it ordinarily generates on its own. Thus, a cogeneration facility with a capacity of ten megawatts might require five more megawatts from a utility on a continuing basis to meet its electric load of fifteen megawatts. The five megawatts supplied by the electric utility would normally be provided as supplementary power.

Back-up power is power available to replace power generated by a facility's own generation equipment. In the example provided above, a cogeneration facility might contract with an electric utility for the utility to have available ten megawatts, should the cogenerator's units experience an outage.

Interruptible power is power supplied by a utility on an "as available" basis. Because interruptible power normally is sold at a lower rate, a qualifying facility may wish to cease operations when utility power is interrupted rather than pay the higher rate necessary to assure firm supplementary supplies.

Maintenance power is supplied during scheduled outages. By prearrangement, a utility can agree to provide such power during periods when the utility's other loads are low, thereby avoiding the imposition of large demands on the utility during peak periods.

Paragraphs (d)(1) and (d)(2) provide that rates for sales of back-up or maintenance power shall not be based on the assumption that forced outages or other reductions in output by each qualifying facility on an electric utility's system will occur simultaneously or on the assumption that they will occur during the system peak. Like other customers, qualifying facilities have intraclass diversity. In addition, because of the variations in size and load requirements among various types of qualifying facilities, such facilities will have interclass diversity.

The effect of such diversity is that an electric utility supplying back-up or maintenance power to qualifying facilities will not have to plan for reserve capacity to serve such facilities on the assumption that every facility will use power at the same moment. The Commission believes that probabilistic analysis of their demand will show that a utility need not reserve capacity on a one-to-one basis to meet back-up requirements. Paragraphs (d)(1) and (d)(2) prohibit utilities from basing rates on the unsupported assumption that qualifying facilities will impose

demands simultaneously and at system peak.

Paragraph (d)(3) provides that rates for sales from an electric utility to a qualifying facility shall take into account the extent to which a qualifying facility has coordinated periods of scheduled maintenance with an electric utility. If a qualifying facility coordinates periods of outage with an electric utility the demand that the qualifying facility imposes on the utility's system will not create capacity requirements to the same extent that such a demand would create if the utility were required to provide such service without prior notice.

§ 292.107 Simultaneous purchase and sale.

Section 292.107 deals with the situation referred to in the Staff discussion paper in which a cogenerator or small power producer desires to sell all of its output to a utility and purchase all of its needs from the utility simultaneously. As observed in the Staff discussion paper, and efficient use of society's resources requires that when there is a need for additional capacity, and a utility's customer can construct a new plant more cheaply than the utility can, he should be encouraged to do so.¹⁸ A qualifying facility may have previously used a portion of its electric output to supply its own power needs. That it chose to generate its own electric power, rather than purchase such power from an electric utility, indicates that there were sufficient economic incentives to so act. To permit such a facility to sell that portion of its electric output to the utility at the utility's avoided costs and replace that electricity from the electric utility at non-incremental (and presumably lower) rates would increase the purchased power costs of the purchasing utility and thus would increase the rates charged to the utility's other customers. The Commission believes that it is not necessary to the encouragement of cogeneration and small power production that a qualifying facility be permitted to obtain avoided cost-based rates for this portion of its electric output. Accordingly, the Commission proposes that for energy generated by a new facility or by capacity installed after the date of issuance of these rules, a qualifying facility be permitted to sell its output at rates established under the section 210(b) of PURPA pricing mechanism while simultaneously purchasing electric energy from a utility pursuant to its retail rate schedules.

¹⁸ Staff discussion paper, *supra* at 24-25.

¹⁵ Staff discussion paper, *supra*, at 14-20.

¹⁶ Comments of ELCON (Electricity Consumer Resource Council), filed August 1, 1979, at 5.

¹⁷ Comments of Consumers Power Company, filed August 1, 1979, at 3.

§ 292.108 Costs of interconnection.

Paragraph (a) defines "interconnection costs" as the reasonable costs of connection, switching, metering, transmission, safety provisions and other costs to an electric utility resulting from interconnected operation between an electric utility and a qualifying facility.

Paragraph (b) states that each qualifying facility must reimburse any electric utility which purchases capacity or energy from the qualifying facility for any interconnection costs. These costs are limited to the net increased costs imposed on an electric utility compared to those it would have incurred had it generated the energy itself or purchased an equivalent amount of energy or capacity from another source.

If, with the consent of a qualifying facility, an electric utility elects to transmit energy from the qualifying facility to another electric utility, the costs of transmission constitute interconnection costs as defined in this paragraph. Under paragraph (b), these costs must be borne by the qualifying facility unless the transmitting utility agrees to share them.

The cost responsibility of the qualifying facility was well summarized in comments by The Southern Company:

We believe that the interconnection costs which should be addressed in the rules are those incremental costs that go beyond the cost to the system for connecting a normal (i.e., no generation) customer. These costs will include the additional relaying, switching, metering, line, and protective equipment—inclusive of equipment changeout cost—required in the general vicinity of the facility because of the customer's generation. Recognition must be given to the fact that protection goes beyond the protection of equipment and personnel of the qualifying facility and utility. The rules also must provide for the protection of other customers of the utility that may be affected by the operation of the qualifying facility.¹⁹

Thus, it is only the additional costs which result from interconnected operation for which the qualifying facility is responsible; if the utility would have provided retail service to the customer, those expenses may not be assessed against the qualifying facility merely because the facility is also supplying power and energy. If, however, as a result of the qualifying facility's export of power, the utility is required to install additional switching, safety or other equipment, the qualifying facility is responsible for those expenses.

Paragraph (c) provides that a qualifying facility must reimburse an

electric utility which sells capacity or energy to the qualifying facility for interconnection costs resulting from such sale. Ordinarily, the service, obligation of an electric utility will contain standard procedures for the allocation of interconnection costs between a retail customer and the electric utility. Paragraph (c) also provides that interconnection costs to qualifying facilities shall not be discriminatory in relation to the practices of the electric utility with regard to other retail customers.

§ 292.109 System emergencies.

Paragraph (a) provides that, except as provided under section 202(c) of the Federal Power Act or pursuant to a contract or agreement between a qualifying facility and an electric utility, no qualifying facility shall be compelled to provide energy or capacity to the electric utility during an emergency beyond the extent provided by agreement between the qualifying facility and the utility.

Many comments from cogenerators and small power producers expressed concern that, during a system emergency, they might be required to make available all of their generation to the utility. Such a requirement might interrupt industrial processes with resulting damage to equipment and manufactured goods. Many industries install their own generating equipment in order to insure that even during a system emergency, their supply of power is not interrupted. To put in jeopardy the availability of power because of the facility's ability to provide power to the system during non-emergency periods would result in the discouragement of interconnected operation and a resultant discouragement of cogeneration and small power production. The Commission therefore proposes that the qualifying utility's obligation to provide power be established through contract.

In order to receive full credit for capacity, a qualifying facility must offer power during system emergencies to the same extent that it has agreed to provide power at the purchasing utility's discretion. For example, a 30 megawatt cogenerator may require 20 megawatts for its own industrial purposes, and thus may contract to provide 10 megawatts of capacity to the purchasing utility. During an emergency, the cogenerator must provide the 10 megawatts contracted for to the utility; it need not disrupt its industrial processes by supplying its full capability of 30 megawatts. Of course, if it should so desire, a cogenerator could contractually agree to supply the full 30 megawatts during system emergencies.

The availability of such additional back-up capacity should increase utility system reliability, and should be accounted for in the utility's rates for purchases from the cogenerator.

Paragraph (b) provides that an electric utility may discontinue purchases from a qualifying facility during a system emergency if such a purchase would contribute to the emergency. In addition, during system emergencies, a qualifying facility must be treated on a non-discriminatory basis—i.e., on the same basis that other customers of a similar class with similar load characteristics are treated with regard to interruption in service.

§ 292.110 Standards for operating reliability.

Section 210(a) of PURPA states that the rules requiring electric utilities to buy from and sell to qualifying facilities shall include provisions respecting minimum reliability of qualifying facilities (including reliability of such facilities during emergencies) and rules respecting reliability of electric energy service to be available to such facilities from electric utilities during emergencies. Staff's analysis presented in the discussion paper regarding reliability of a particular qualifying facility concluded that every incidence of qualifying facility reliability can be accounted for through price; namely, the less reliable a qualifying facility might be, the less it should be entitled to receive for purchases of its power by the utility. The majority of comments received regarding this issue endorsed the Staff's recommendation. Accordingly, the Commission proposes that there be no specific standard relating to the reliability in the sense of ability to provide power for qualifying facilities.

Many commentators have proposed that the Commission's rules ensure that interconnection with qualifying facilities does not disrupt system reliability. One commentator proposed that qualifying facilities must automatically disconnect from utility lines upon interruption or interference with utility service, or upon the flow of excessive current between the utility system and the non-utility generator.²⁰

It is the Commission's understanding that safety equipment exists which can ensure that qualifying facilities do not energize utility lines during utility outages. This section accordingly provides that any qualifying facility may be subject to reasonable standards to ensure system safety and reliability in

¹⁹ Comments of The Southern Company, filed July 30, 1979, at 5.

²⁰ Comments of Illinois Power Company, filed August 14, 1979.

interconnected operations. Each State regulatory authority and nonregulated electric utility is permitted to establish standards for interconnected operation between electric utilities and qualifying facilities. These standards may be recommended by a utility or any other person. The standards must be accompanied by a statement showing the need for the standard on the basis of system safety and operating requirements.

Subpart C

Summary of This Subpart

Rules proposed in this subpart are intended to carry out the responsibility of the Commission to encourage cogeneration and small power production by clarifying to all parties concerned the nature of the obligation to implement the Commission's rules under section 210.

In the Commission's view, section 210(f) affords the State regulatory authorities and nonregulated electric utilities great latitude in determining the manner of implementation of the Commission's rules so long as the manner chosen is reasonably designed to implement the requirements of Subpart A. The Commission recognizes that many States and individual nonregulated electric utilities have ongoing programs to encourage small power production and cogeneration. The Commission also recognizes that economic and regulatory circumstances vary from State to State and utility to utility. It is within this broad latitude, and with the recognition of the work already begun and of the variety of local conditions that the Commission proposes to promulgate its regulations requiring implementation of rules issued under section 210.

Because of the Commission's desire not to create unnecessary burdens at the State level, these proposed rules provide a procedure whereby a State regulatory authority or nonregulated electric utility may apply for a waiver if it can demonstrate that compliance with certain requirements of Subpart A is not necessary to encourage cogeneration or small power production and is not otherwise required under section 210.

Implementation

Section 210(f) of PURPA requires that within one year after the date that this Commission prescribes its rules under subsection (a), and within one year of the date any of these rules is revised, each State regulatory authority and each nonregulated electric utility, after notice and opportunity for hearing, must

implement the rules or revisions thereof, as the case may be.

The obligation to implement section 210 rules is a continuing obligation which begins within one year after promulgation of such rules. The requirements to implement may be fulfilled either through (1) the enactment of laws or regulations at the State level, (2) by application on a case-by-case basis by the State regulatory authority, or nonregulated utility, of the rules adopted by the Commission, or (3) by any other action reasonably designed to implement the Commission's rules. In the first case, implementation would consist of the issuance of rules after notice, and an opportunity for a hearing. In the second case, the State regulatory authority or nonregulated utility would be required to hold hearings regarding its proposed procedure for operating on a case-by-case basis, within the one-year statutory period.

Review and Enforcement

Section 210(g) of PURPA provides one of the means of obtaining judicial review of a proceeding conducted by a State regulatory authority or nonregulated utility for purposes of implementing the Commission's rules under section 210. Under subsection (g), review may be obtained pursuant to procedures set forth in section 123 of PURPA. This section contains provisions with regard to judicial review and enforcement of determinations made by State regulatory authorities and nonregulated utilities under Subtitle A, B, or C of Title I in the appropriate State court. These provisions also apply to review of any action taken to implement the rules under section 210. This means that persons can bring actions in State court to require the State regulatory authorities or nonregulated utilities to implement these regulations. Section 123(c)(2) of PURPA restates the requirements of section 123(c)(1) as they apply to Federal agencies. This distinction between Federal agencies and non-Federal agencies also applies to review and enforcement of the implementation of the rules under section 210.

Finally, the Commission believes that review and enforcement of implementation under section 210 of PURPA, can consist not only of review and enforcement as to whether the State regulatory authority or nonregulated electric utility has conducted the initial implementation properly—namely put into effect regulations implementing section 210 rules or procedures for that implementation, after notice and an opportunity for a hearing. It can also consist of review and enforcement with

regard to the application by a State regulatory authority or nonregulated electric utility, on a case-by-case basis, of its regulations or any other provision it may have adopted to implement the Commission's rules under section 210.

Section 210(h)(2)(A) of PURPA states that the Commission may enforce regulations under section 210(f). The Congress has provided not only for private causes of action in State courts to obtain judicial review and enforcement of the implementation of the Commission's rules under section 210, but has also given to the Commission that authority.

Section-by-Section Analysis

§ 292.301 Implementation by State regulatory authorities and nonregulated utilities.

Paragraph (a) of § 292.301 sets forth the obligation of each State regulatory authority to commence implementation of Subpart A within one year of the date these rules take effect. In complying with this paragraph the State regulatory authorities are required to provide for notice and opportunity for public hearing. As described in the summary of this part, such implementation may consist of the adoption of the Commission's rules, an undertaking to resolve disputes between qualifying facilities and electric utilities arising under Subpart A, or any other action reasonably designed to implement Subpart A.

This section does not cover one provision of Subpart A which is not required to be implemented by the State regulatory authority or nonregulated electric utility. This provision is § 292.103, the implementation of which is subject to § 292.302, which will be discussed below.

Subsection (b) sets forth the obligation of each nonregulated electric utility to commence, after notice and opportunity for public hearing, implementation of Subpart A. The nonregulated electric utilities, being both the regulator and the utility subject to the regulation, may satisfy the obligation to commence implementation of Subpart A through issuance of regulations, an undertaking to comply with Subpart A, or any other action reasonably designed to implement that subpart. Paragraph (c) sets forth a reporting requirement under which each State regulatory authority and nonregulated electric utility is to file with the Commission not later than one year after these rules take effect, a report describing the manner in which it is proceeding to implement Subpart A.

§ 292.302 Implementation of reporting objectives.

The obligation to comply with § 292.103 is imposed directly on electric utilities. This is different from the rest of Subpart A where the obligation to act is imposed on the State regulatory authority or nonregulated electric utility in its role as regulator. The Commission is exercising its authority under section 133 of PURPA to require this reporting.

Any electric utility which fails to comply with the requirements of § 292.103(b) is subject to the same penalties as it might receive as a result of a failure to comply with the requirements of the Commission's regulations issued under section 133 of PURPA. As stated earlier in this preamble, the data required by § 292.103 will form the basis for the rates for purchases; § 292.103 is thus a critical element in the program this Commission is providing. The Commission believes that, with regard to utilities subject to section 133 of PURPA, the Commission may exercise its authority under section 133 to require the data required by § 292.102(b) on the basis that the Commission finds such information necessary to allow determination of the costs associated with providing electric services. With regard to utilities not subject to section 133, if they fail to provide the data called for in § 292.103(c), the Commission may compel its production under the Federal Power Act and other statutes which give the Commission authority to require reporting of this data.

§ 292.303 Waivers.

Paragraph (a) provides for a procedure by which any State regulatory authority or nonregulated electric utility may apply for a waiver from the application of any of the requirements of Subpart A other than § 292.103. This provision is included in recognition of the need for the Commission to afford flexibility to the States and nonregulated utilities to implement the Commission's rules under section 210.

Paragraph (b) provides that any electric utility subject to the requirements of § 292.103(c) may apply to the Commission for a waiver from the application of such requirements. This provision is included to afford to the Commission flexibility to enforce the obligations of § 292.103(c) so that it may consider the burden which may be placed on the utility by application of this section.

Subpart D—Exemption of Qualifying Small Power Production and Cogeneration Facilities From Certain Federal and State Laws and Regulations

§ 292.401 Exemptions for qualifying facilities from the Federal Power Act.

Section 210(e) of PURPA states that the Commission shall prescribe rules under which qualifying facilities are exempt in part from the Federal Power Act, from the Public Utility Holding Company Act of 1935, from State laws and regulations respecting the rates, or respecting the financial or organizational regulation, of electric utilities, or from any combination of the foregoing, if the Commission determines such exemption is necessary to encourage cogeneration and small power production. As noted in the Staff discussion paper, the Congress intended the Commission to make liberal use of its exemption authority in order to remove the disincentive of utility-type regulation. The Commission believes that broad exemption is appropriate.

Section 210(e)(2) of PURPA provides that the Commission is not authorized to exempt small power production facilities of 30 to 80 megawatt capacity from any of these laws. An exception is made for small power production facilities using biomass. Such facilities between 30 and 80 megawatts may be exempted from the Public Utility Holding Company Act of 1935 and from State regulations but may not be exempted from the Federal Power Act.

Paragraph (a) sets forth those facilities eligible for exemption. Paragraph (b) provides that facilities described in paragraph (a) shall be exempted from all but certain specified sections of the Federal Power Act.

Section 210(e)(3)(C) of PURPA provides that no qualifying facility may be exempted from any license or permit requirement under Part I of the Federal Power Act. Accordingly, the Commission proposes not to exempt qualifying facilities from Part I of the Federal Power Act. The Commission recently issued simplified procedures for obtaining water power licenses for hydroelectric projects of 1.5 megawatts or less, and has issued proposed regulations to expedite licensing of existing facilities.²¹

As noted in the discussion paper, cogenerators and small power production facilities could be the subject of an order under section 202(c) of the Federal Power Act requiring them to

provide energy if the Economic Regulatory Administration determines that an emergency situation exists. Because application of this section is limited to emergency situations and is not affected by the fact that a facility attains qualifying status or engages in interchanges with an electric utility, the Commission proposes that qualifying facilities not be exempted from section 202(c) of the Act.

Sections 203, 204, 205, 206, 208, 301, 302 and 304 of the Act reflect traditional rate regulation or regulation of securities of public utilities. The Commission proposes that qualifying facilities be exempted from these sections of the Federal Power Act.

Section 305(c) of the Act imposes certain reporting requirements on interlocking directorates. The Commission proposes that any person who otherwise is required to file a report regarding interlocking positions not be exempted from such requirement because he or she is also a director or officer of a qualifying facility.

Finally, the enforcement provisions of Part III will continue to apply with respect to the sections of the Federal Power Act from which qualifying facilities are not exempt.

§ 292.402 Exemptions for qualifying facilities from the Public Utility Holding Company Act and Certain State Laws and Regulations.

Under section 210(e) of PURPA the Commission can exempt qualifying facilities from regulation under the Public Utility Holding Company Act of 1935 and State laws and regulations concerning rates or financial organizations. Only cogeneration facilities and small power production facilities of 30 megawatts or less may be exempted from both of these laws, with the exception that any qualifying small power production facility (i.e., up to 80 megawatts) using biomass as a primary energy source can be exempted from these laws.

The Staff discussion paper recommended that, where a qualifying facility is subjected to more stringent regulation than other companies solely by reason of the fact that it is engaged in the production of electric energy, these more stringent requirements should be eased through exemption of qualifying facilities. By excluding any qualifying facility from the definition of an "electric utility company" under section 79 (b)(3) of the Public Utility Holding Company Act of 1935, such facilities would be removed from Public Utility Holding Company Act regulation which is applied exclusively to electric utility companies. Moreover, by excluding

²¹ See Order No. 11, Simplified Procedures for Certain Water Power Licenses, Docket No. RM79-9, issued September 5, 1978, and Application for License for Major Project—Existing Dam, Docket No. RM79-36, 44 F.R. 24095 (April 21, 1979).

qualifying facilities from this definition, parent companies of qualifying facilities would not be subject to additional regulation as a result of electric activities of their subsidiaries. The Commission therefore believes that in order to encourage cogeneration and small power production it is necessary to exempt cogenerators and small power producers from the provisions of the Public Utility Holding Company Act of 1935.

Accordingly, paragraph (b) states that no qualifying facility shall be considered to be an "electric utility company", as defined in section 79 (b)(3) of the Public Utility Holding Company Act of 1935.

Section 210(e) of PURPA states that qualifying facilities which may be exempted from the Public Utility Holding Company Act may also be exempted from State laws and regulations respecting the rates or respecting the financial or organization regulation of electric utilities. The Staff discussion paper sets forth two approaches to be taken to exemption from State law. One would be to analyze the laws of each State and apply the exemptions citing specific sections of State law and regulations. The second approach discussed would be to make a broad proscription from State laws and regulations which would conflict with the State's implementation of the Commission's rules under section 210.

All of the comments received recommended the broader approach. The Commission believes that such broad exemption is necessary to encourage cogeneration or small power production. Accordingly, subparagraph (c)(1) provides that any qualifying facility shall be exempt from State laws and regulations respecting rates for sales of electric energy to electric utilities, and from financial and organizational regulation of electric utilities.

Subparagraph (c)(2) provides that, upon request of a State regulatory authority a nonregulated electric utility, the Commission may limit the applicability of the broad exemption from the State laws. This provision is intended to add flexibility to the exemption.

The Commission perceives that there may be instances in which a qualifying facility would wish to have an interpretation of whether or not it is subject to a particular State law in order to remove any uncertainty. Under subparagraph (c)(2), the Commission may determine whether a qualifying facility is exempt from a particular State law or regulation.

Written Comments and Public Hearings

Interested persons are invited to submit written comments on the proposed regulation to the Office of the Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426. Comments should reference Docket No. RM 79-55 on the outside of the envelope and on all documents submitted to the Commission. In order that the Commission be able to take into account as many comments as possible, the Commission requests that persons submitting comments assist in three ways. First, persons should identify specifically the section or subpart they are addressing. Second, comments should clearly state whether they involve technical, policy or legal matters. Finally, where comments urge a different approach from one presented, specific alternative language should be proposed to the extent practicable.

In addition, the preliminary Environmental Assessment prepared by Commission Staff regarding the Commission's proposed rules implementing sections 201 and 210 of PURPA is available in the Commission's Office of Public Information. As stated in the Request for Further Comment on Proposed Rulemaking Establishing Requirements and Procedures for a Determination of Qualifying Status for Small Power Production and Cogeneration issued today, the Commission is seeking comments on specific issues relating to the preliminary Environmental Assessment.

The Commission has also received many comments in response to the Staff discussion paper and the notice of proposed rulemaking in Docket No. RM79-54. All comments filed in response to those documents are being made part of the record and will be considered in the determination of the final rule in this proceeding.

Fifteen (15) copies should be submitted. All comments and related information received by the Commission by December 1, 1979, will be considered prior to the promulgation of final regulations.

In addition, the Commission will conduct public hearings in several cities at which interested persons will have the opportunity to present their views. Places, dates and times will be announced shortly.

(Public Utility Regulatory Policies Act of 1978, Pub. L. 95-617, Energy Supply and Environmental Coordination Act, 15 U.S.C. 791 *et seq.*, Federal Power Act, as amended, 16 U.S.C. 792 *et seq.*, Department of Energy Organization Act, Pub. L. 95-91, E.O. 12009, 42 FR 46267)

In consideration of the foregoing, it is proposed to amend Chapter I of Title 18, Code of Federal Regulations, as set forth below.

By direction of the Commission.
Kenneth F. Plumb,
Secretary.

(1) Subchapter K is amended in the table of contents by deleting the title for Part 292 and substituting the following in lieu thereof:

PART 292—REGULATION OF SMALL POWER PRODUCTION AND COGENERATION FACILITIES UNDER SECTIONS 201 AND 210 OF THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978.

(2) Subchapter K is further amended in the table of contents to Part 292 and in the text of the regulations by changing the title to Part 292 and by adding new Subparts A, C, and D to read as follows:

PART 292—REGULATION OF SMALL POWER PRODUCTION AND COGENERATION FACILITIES UNDER SECTIONS 201 AND 210 OF THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

Subpart A—Rates for Sales Between Electric Utilities and Qualifying Cogeneration and Small Power Production Facilities

Sec.	
292.101	Scope.
292.102	Definitions.
292.103	Availability of Electric Utility System Cost Data.
292.104	Electric Utility Obligations Under This Subpart.
292.105	Rates for Purchases.
292.106	Rates for Sales.
292.107	Simultaneous Purchase and Sale.
292.108	Costs of Interconnection.
292.109	System Emergencies.
292.110	Standards for Operating Reliability.
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Subpart C—Implementation

292.301	Implementation by State Regulatory Authorities and Nonregulated Electric Utilities.
292.302	Implementation of Reporting Objectives.
292.303	Waiver.

Subpart D—Exemption of Qualifying Small Power Production Facilities and Cogeneration Facilities From Certain Federal and State Laws and Regulations

292.401	Exemptions for Qualifying Facilities from the Federal Power Act.
292.402	Exemptions for Qualifying Facilities from the Public Utility Holding Company Act and Certain State Laws and Regulations.

Authority: This part issued under the Public Utility Regulatory Policies Act of 1978, Pub. L. 95-617, Energy Supply and Environmental Coordination Act, 15 U.S.C. 791 *et seq.*

Federal Power Act, as amended, 16 U.S.C. 792 *et seq.*, Department of Energy Organization Act, Pub. L. 95-91, E.O. 12009, 42 FR 46267.

Subpart A—Arrangements Between Electric Utilities and Qualifying Cogeneration and Small Power Production Facilities Under Section 210 of the Public Utility Regulatory Policies Act of 1978

§ 292.101 Scope.

(a) *Applicability.* This subpart applies to the regulation of sales and purchases of electric energy and capacity between qualifying cogeneration and small power production facilities and electric utilities.

(b) *Negotiated rates or terms.* Nothing in this subpart—

(1) Limits the authority of any electric utility or any qualifying facility to agree to a rate for purchases or sales, or terms or conditions relating to such sales, which differ from the rate or terms which would otherwise be required by this subpart, or

(2) Affects the validity of any contract entered into between a qualifying facility and an electric utility.

§ 292.102 Definitions.

(a) *General rule.* Terms defined in the Public Utility Regulatory Policies Act of 1978 (PURPA) shall have the same meaning for purposes of this part as they have under PURPA, unless further defined in this part.

(b) *Definitions:* For purposes of this part:

(1) "Qualifying facility" means a cogeneration facility or a small power production facility which is a qualifying facility under § 292.208 of the Commission's regulations;

(2) "Purchase" means the purchase of electric energy or capacity from a qualifying facility by an electric utility;

(3) "Sale" means the sale of electric energy or capacity by an electric utility to a qualifying facility;

(4) "System emergency" means a condition on a utility's system which is likely to result in disruption of service to a significant number of customers or is likely to endanger life or property;

(5) "Rate" means any price, rate, charge, or classification made, demanded, observed or received with respect to the sale or purchase of electric energy or capacity, or any rule, regulation, or practice respecting any such rate, charge, or classification, and any contract pertaining to the sale or purchase of electric energy or capacity.

(6) "Avoided costs" means the costs to the electric utility of electric energy or capacity or both which, but for the

purchase from such cogenerator or small power producer, such utility would generate itself or purchase from another source.

§ 292.103 Availability of electric utility system cost data.

(a) *Applicability.* (1) Except as provided in subparagraph (2), paragraph (b) applies to each electric utility, in any calendar year, if the total sales of electric energy by such utility for purposes other than resale exceeded 500 million kilowatt-hours during any calendar year beginning after December 31, 1975, and before the immediately preceding calendar year.

(2) Each utility having total sales of electric energy for purposes other than resale of less than one billion kilowatt-hours during any calendar year beginning after December 31, 1975, and before the immediately preceding year, shall not be subject to the provisions of this section until June 30, 1982.

(b) *General Rule.* Not later than June 30, 1980, and every two years thereafter, each regulated electric utility to which this section applies shall provide to its State regulatory authority, and shall maintain for public inspection, and each nonregulated electric utility to which this section applies shall maintain for public inspection, the following data:

(1) The estimated avoided cost of energy on the electric utility's system for various levels of purchases from qualifying facilities. Such levels of purchases shall be stated in blocks of one hundred megawatts or less for systems with peak demand of 1000 megawatts or more, and in blocks equivalent to not more than ten percent of the system peak demand, for systems of less than 1000 megawatts. The avoided costs shall be stated on a cents per kilowatt-hour basis, during daily and seasonal peak and off-peak periods, by year, for the immediately preceding year, and on an estimated cents per kilowatt-hour basis for the current calendar year and each of the next 5 years;

(2) The electric utility's plan and schedule for the addition of capacity, for purchases of firm energy and capacity, and for capacity retirements for each of the next 10 years; and

(3) The estimated costs at completion, on the basis of dollars per kilowatt, of the planned capacity additions and planned firm purchases. These costs should be expressed in terms of individual generating units and by planned firm purchases.

(c) *Special Rule.* Each electric utility (other than any electric utility to which paragraph (b) applies) shall, upon request of a qualifying facility, provide

sufficient data to enable such qualifying facility to determine the electric utility's avoided costs for any period described in paragraph (b). If any such electric utility fails to provide such information or request, the qualifying facility may apply to the Commission for an order requiring that the information be provided.

§ 292.104 Electric utility obligations under this subpart.

(a) *Obligation to Purchase from Qualifying Facilities.* Except during periods identified in § 292.105(e), each electric utility shall purchase in accordance with § 292.105 any capacity or energy which is made available either directly from the qualifying facility or which is transmitted to such utility from the qualifying facility through the facilities of another electric utility.

(b) *Obligation to Sell to Qualifying Facilities.* Each electric utility shall sell to any qualifying facility energy and capacity requested by such qualifying facility in accordance with § 292.106.

(c) *Obligation to Interconnect.* Any electric utility shall make all interconnections with any qualifying facility as may be necessary to accomplish purchases or sales under this subpart. The obligations for the cost of any such interconnection shall be determined in accordance with § 292.108.

(d) *Transmission of Purchases to Other Electric Utilities.* If a qualifying facility agrees, an electric utility which would otherwise be obligated to purchase capacity or energy from such qualifying facility may transmit the energy to any other electric utility. Any electric utility to which such energy is transmitted shall purchase such energy under this subpart as if such qualifying facility were supplying energy and capacity directly to such electric utility. The cost of transmission shall be assigned to the qualifying facility pursuant to § 292.108 of these rules. The rate for purchase by the electric utility to which such energy is transmitted shall be adjusted to reflect line losses pursuant to § 292.105(d)(3).

(e) *Parallel Operation.* Each electric utility shall offer to operate in parallel with a qualifying facility, provided that the qualifying facility complies with any relevant standards established pursuant to § 292.110.

§ 292.105 Rates for purchases.

(a) *Rates for Purchases.* Rates for purchases of energy and capacity from any qualifying facility:

(1) Shall be just and reasonable to the electric consumer of the electric utility and in the public interest;

(2) Shall not discriminate against qualifying cogeneration and small power production facilities; and

(3) Shall not exceed the avoided costs of such a purchase. There is a rebuttable presumption that the rate for purchases meets the requirements of this paragraph if the rate reflects the avoided costs resulting from such purchase as determined on the basis of the cost of energy and capacity set forth pursuant to § 292.103(b) or (c).

(b) *Tariffs for Purchases From Facilities of Ten Kilowatts or Less.* Each electric utility, upon request of a qualifying facility, shall establish a tariff or other method for setting forth standard rates for purchases from qualifying facilities with a design capacity of 10 kilowatts or less.

(c) *Purchases "As Available" or Pursuant to a Legally Enforceable Obligation.* A qualifying facility shall have the option either to provide energy or capacity to an electric utility—

(1) As the qualifying facility determines such energy or capacity to be available for such purchases, in which case the rates for such purchases may be based on the purchasing utility's avoided energy costs, or

(2) Pursuant to a legally enforceable obligation for the delivery of energy or capacity at a future date, in which case the rates for purchases may be based on estimates of future avoided costs of energy or capacity.

(d) *Factors Affecting Rates For Purchases.* In implementing the provisions of this subpart, a State regulatory authority (with respect to any electric utility over which it has ratemaking authority) or nonregulated electric utility shall consider with regard to rates for purchases the following factors:

(1) The availability of capacity from a qualifying facility during system daily and seasonal peak periods, including—

(i) The ability of the utility to dispatch the qualifying facility;

(ii) The qualifying facility's ability and willingness to provide energy or capacity during system emergencies;

(iii) The length, frequency, and scheduling flexibility of scheduled maintenance by the qualifying facility;

(iv) The expected or demonstrated reliability of the qualifying facility; and

(v) The length of any contract term between the electric utility and the qualifying facility and its termination notice requirements or the length of any legally enforceable obligation to provide energy or capacity undertaken by the qualifying facility;

(2) The relationship of energy or capacity from a qualifying facility to an electric utility's capacity and energy

needs as expressed in § 292.103, including:

(i) The ability of the electric utility to reduce or avoid costs, including the deferral of capacity additions, as a result of the availability individually or in the aggregate from qualifying facilities; and

(ii) The smaller capacity increments and the shorter lead times available with additions of capacity from qualifying facilities; and

(3) The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from a qualifying facility, if the purchasing electric utility generated or purchased an equivalent amount of electric energy.

(e) *Periods During Which Purchases Not Required.* An electric utility will not be required to purchase electric energy and capacity during any period identified by the State regulatory authority having jurisdiction over the rates of such utility, or the nonregulated electric utility, during which purchases from qualifying facilities might result in costs greater than those which the utility would incur if it did not make such purchases, but instead generated or purchased an equivalent amount of electric energy.

§ 292.106 Rates for sales.

(a) *General Rules.* (1) Rates for sales shall not discriminate against any qualifying facility in comparison to rates for sales to other customers served by the electric utility. Rates for sales shall be just and reasonable and in the public interest.

(b) Each electric utility shall provide electric energy and capacity and other services to any qualifying facility, at a rate at least as favorable as would be provided to a customer who does not have his own generation. The costs of interconnection shall be assigned pursuant to § 292.108 of this part.

(c) *Additional Services to be Provided by Qualifying Facilities.* Each electric utility shall provide to any qualifying facility the following types of service, even if such types of service are not provided to other retail customers:

- (1) Supplementary power;
- (2) Back-up power;
- (3) Interruptible power; and
- (4) Maintenance power.

(d) *Rates for Sales of Back-Up and Maintenance Power.* The rate for sales of back-up power or maintenance power—

(1) Shall not be based upon an assumption (unless supported by factual data) that forced outages or other reductions in electric output by all qualifying facilities on an electric

utility's system will occur simultaneously;

(2) Shall not be based upon an assumption (unless supported by factual data) that forced outages or other reductions in electric output by all qualifying facilities will occur during the system peak; and

(3) Shall take into account the extent to which a qualifying facility has coordinated periods of scheduled maintenance with such electric utility.

§ 292.107 Simultaneous purchase and sale.

A qualifying facility shall be permitted to receive rates established pursuant to § 292.105(a) for the electric energy and capacity generated by the facility, while simultaneously buying energy and capacity from such utility for use in the facility at rates established in accordance with § 292.106(a), to the extent that such purchases are produced by capacity the construction of which was commenced after the date of issuance of this part.

§ 292.108 Costs of interconnection.

(a) *Definition.* For purposes of this subpart, "interconnection costs" means the costs of connection, switching, metering, transmission, safety provisions and other costs incurred by the utility reasonably resulting from interconnected operation between an electric utility and a qualifying facility.

(b) *Reimbursement for Interconnection Costs for Purchases.* Each qualifying facility must reimburse any electric utility which purchases capacity or energy from such qualifying facility for any interconnection costs. These costs are limited to those costs which the purchasing utility would incur if it did not make such purchases but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy from other sources.

(c) *Reimbursement for Interconnection Costs for Sales.* Each qualifying facility must reimburse any electric utility which sells capacity or energy to such qualifying facility for any interconnection costs. The apportionment of interconnection costs between such qualifying facility and electric utility under this paragraph shall not discriminate against any qualifying facility in comparison to any other customers served by the electric utility.

§ 292.109 System emergencies.

(a) *Qualifying facility obligation to provide power during system emergencies.* A qualifying facility shall be required to provide energy or capacity to an electric utility during a

system emergency only to the extent provided by agreement between such qualifying facility and electric utility or to the extent ordered under section 202(c) of the Federal Power Act.

(b) Discontinuance of Purchases and Sales During System Emergencies.

During any system emergency, an electric utility may discontinue—

(1) Purchases from a qualifying facility if such purchases would contribute to such emergency; and

(2) Sales to a qualifying facility, provided that such discontinuance is on a nondiscriminatory basis.

§ 292.110 Standards for operating reliability.

Any qualifying facility may be subject to reasonable standards to ensure system safety and reliability in interconnected operations. Such standards may be recommended by any electric utility, or by any other person. Each State regulatory authority (with respect to any electric utility over which it has ratemaking authority) or any nonregulated electric utility may establish such standards as it determines necessary to carry out the purposes of this section. Such standards must be accompanied by a statement setting forth the need for such standards on the basis of system safety and reliability requirements.

Subpart C—Implementation

§ 292.301 Implementation by State regulatory authorities and nonregulated electric utilities.

(a) *State Regulatory Authorities.* Not later than one year after these rules take effect, each State regulatory authority shall, after notice and an opportunity for public hearing, commence implementation of Subpart A (other than § 292.103 thereof). Such implementation may consist of the issuance of regulations; an undertaking to resolve disputes between qualifying facilities and electric utilities arising under Subpart A, or any other action reasonably designed to implement such subpart (other than § 292.103 thereof).

(b) *Nonregulated Electric Utilities.* Not later than one year after these rules take effect, each nonregulated electric utility shall, after notice and an opportunity for public hearing, commence implementation of Subpart A (other than § 292.103 thereof). Such implementation may consist of the issuance of regulations, an undertaking to comply with Subpart A, or any other action reasonably designed to implement such subpart (other than § 292.103 thereof).

(c) *Reporting Requirement.* Not later than one year after these rules take effect, each State regulatory authority and nonregulated electric utility shall file with the Commission a report describing the manner in which it will implement Subpart A (other than § 292.103 thereof).

§ 292.302 Implementation of reporting objectives.

Any electric utility which fails to comply with the requirements of § 292.103(b) shall be subject to the same penalties to which it may be subjected for failure to comply with the requirements of the Commission's regulations issued under section 133 of PURPA.

§ 292.303 Waivers.

(a) *State regulatory authority and non-regulated utility waivers.* Any State regulatory authority or non-regulated electric utility may apply for a waiver from the application of any of the requirements of Subpart A (other than § 292.103 thereof).

(b) *Electric utility waiver.* Any electric utility may apply for a waiver from the application of any of the requirements of § 292.103(c).

(c) *Commission action.* The Commission will grant such a waiver only if an applicant under paragraph (a) or (b) demonstrates that compliance with the requirements of Subpart A or § 292.103, as the case may be, is not necessary to encourage cogeneration and small power production and is not otherwise required under section 210 of PURPA.

Subpart D—Exemption of Qualifying Small Power Production Facilities and Cogeneration Facilities From Certain Federal and State Laws and Regulations

§ 292.401 Exemptions for qualifying facilities from the Federal Power Act.

(a) *Applicability.* This section applies to:

- (1) Qualifying cogeneration facilities, and
- (2) Qualifying small power production facilities which have a power production capacity which does not exceed 30 megawatts.

(b) *General Rule.* Any qualifying facility described in paragraph (a) shall be exempt from all sections of the Federal Power Act, except—

- (1) Sections 1–30;
- (2) Section 202(c);
- (3) Section 305(c); and
- (4) Any necessary enforcement provisions of Part III with regard to the sections listed in (1), (2) and (3).

§ 292.402 Exemptions for qualifying facilities from the Public Utility Holding Company Act and certain State laws and regulations.

(a) *Applicability.* This section applies to any qualifying facility described in § 292.401(a), and to any qualifying small power production facility with a power production capacity over 30 megawatts if such facility produces electric energy solely by the use of biomass as a primary energy source.

(b) *Exemption from the Public Utility Holding Company Act of 1935.* Any qualifying facility described in paragraph (a) shall not be considered to be an "electric utility company" as defined in section 79(b)(3) of the Public Utility Holding Company Act of 1935.

(c) Exemption from Certain State Laws and Regulations.

(1) Any qualifying facility shall be exempted from State laws and regulations respecting:

- (i) The rates for sales of electric energy by qualifying cogeneration and small power production facilities to electric utilities; and
- (ii) The financial and organizational regulation of electric utilities.

(2) Upon request of a State regulatory authority or nonregulated electric utility, the Commission may consider any limitation of the application of subparagraph (1).

(3) Upon request of any person, the Commission may determine whether a qualifying facility is exempt from a particular State law or regulation.

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18 CFR Part 292

[Docket No. RM79-54]

Small Power Production and Cogeneration—Qualifying Status; Request for Further Comments on Proposed Rulemaking

October 19, 1979.

AGENCY: Federal Energy Regulatory Commission.

ACTION: Request for Further Comments on Proposed Rulemaking.

SUMMARY: The proposed rules set forth the procedure under which small power production facilities and cogeneration facilities may be certified as qualifying facilities pursuant to section 201 of the Public Utility Regulatory Policies Act of 1978 (PURPA). The rules are being renoticed so that the Commission may elicit comment on the preliminary Environmental Assessment of the combined environmental effects of these rules and its companion rulemaking.

RM79-55, which implements section 210 of PURPA. The Commission also seeks comment on the interrelationship between these two rulemakings.

Public Hearings: Provision for oral comment on these issues will be made at the public hearings which will be held on the Notice of Proposed Rulemaking in RM79-55. Dates and locations will be announced.

DATE: Written comments by December 1, 1979.

ADDRESS: All responses to reference Docket No. RM79-54, and to be addressed to: Office of the Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426.

FOR FURTHER INFORMATION CONTACT: Adam Wenner, Executive Assistant to the Associate General Counsel, 825 North Capitol Street, N.E., Washington, D.C. 20426 (202) 357-8171.

SUPPLEMENTARY INFORMATION:

The Commission is renouncing the proposed rulemaking¹ which establishes rules under which small power production facilities and cogeneration facilities may be certified as qualifying facilities under section 201 of the Public Utility Regulatory Policies Act of 1978 (PURPA). Contemporaneously, the Commission is issuing the Notice of Proposed Rulemaking Regarding the Implementation of Section 210 of the Public Utility Regulatory Policies Act of 1978, in Docket No. RM79-55.

Section 210 Requires the Commission to prescribe rules which the Commission determines necessary to encourage small power production and cogeneration, including rules regarding rates and exemptions for qualifying small power production and cogeneration facilities.

Background

The purpose of renouncing Docket No. RM79-54 at this time is twofold. First, the Commission wishes to provide interested persons the opportunity to comment on its findings with respect to the environmental impacts of the two proposed rules. Second, the Commission seeks comments on the interrelationship between the proposed rules issued pursuant to sections 201 and 210 of PURPA.

The implementation of section 201 as provided in Docket No. RM79-54 is one element in a two-part program to encourage small power production and cogeneration. That rulemaking sets forth

procedures under which certain facilities could become eligible to receive the incentives which were to be provided in the second part of the program. Docket No. RM79-55 implements this second element.

In the Staff discussion paper regarding issues arising under section 210, issued as part of Docket No. RM79-55 for comment on June 28, 1979, the Commission staff set forth the opinion that any environmental effects attributable to the encouragement of cogeneration or small power production under sections 201 and 210 of PURPA would arise from the combined effect of the two rules. The Commission staff has prepared a preliminary Environmental Assessment (EA) describing the environmental effects of the two proposed rules.

Summary of Preliminary Environmental Assessment

Briefly, the preliminary EA concludes that with regard to most of the technologies affected, the impact of the proposed rules will not significantly affect the quality of the human environment. The EA notes that at certain levels of usage and under specified conditions, the encouragement of certain technologies provided by these rules may produce isolated instances of adverse environmental effects. With regard to the use of all technologies encouraged by the Commission's rules, their increased use will result in less need for utility generation of electric energy and utility construction of new plants than would otherwise be necessary. These reductions should result in decreased emissions associated with the production of electric energy at central station utility plants, and the removal of environmental effects associated with new utility plant construction. In addition, the use of certain technologies will cause beneficial environmental effects, such as reduced temperatures of emissions.

The preliminary EA concludes that, except with regard to biomass, centralized solar energy systems (thermal and photovoltaic), and diesel cogeneration, the issuance of the rules implementing sections 201 and 210 of PURPA will not constitute a major Federal action significantly affecting the quality of the human environment. The effects of these regulations on biomass, centralized solar energy systems, and diesel cogeneration technologies may significantly affect the human environment and thus may require the preparation of an Environmental Impact Statement (EIS).

Cogeneration

The preliminary Environmental Assessment notes that, by using fuel more efficiently, cogeneration systems use less fuel and produce less emissions than would be produced if the electric energy and thermal energy were produced separately. The more efficient use of energy will cause some reduction in utility emissions, as a result of reductions in demand for utility-supplied energy and capacity. In addition, by reducing the temperature of gaseous and water wastes, cogeneration can decrease adverse effects associated with the discharge of heat. Therefore, the preliminary EA concludes that, with the exception noted below, the impact of the Commission's rules on cogeneration will not produce significant environmental effects.

Diesel Cogeneration

In the analysis of the use of diesel cogeneration in institutional, residential or commercial systems, the preliminary EA noted that in high-density urban areas, the use of a large number of clustered sources could create significant environmental impacts. The Assessment notes that the price of diesel fuel may inhibit the growth of this technology. It concludes that the Commission's rules may cause significant environmental effects with regard to this technology, but that further study is necessary.

Small Power Production—Solar Energy Systems

The preliminary EA concludes that, except for the case of centralized solar energy systems, the impact of the Commission's rules on solar energy systems in general will not cause significant adverse environmental effects. However, the preliminary EA states that the issuance of these rules may provide incentives for small power production facilities utilizing centralized systems of solar energy. The majority of centralized systems will, due to generating capacity (greater than 80 MW), fall outside the purview of these rulemakings.

The preliminary EA finds that the proposed rulemakings could result in the use of centralized solar energy systems (thermal and electrical) in the upper ranges of generating capacity addressed by these rules. The preliminary EA recognizes that the possible impacts on land use, climate, soil, and ecosystems may be significant. Additional quantitative data are required to assess the severity of these impacts. The preliminary EA recommends further

¹ Proposed Rulemaking Establishing Requirements and Procedures for a Determination of Qualifying Status for Small Power Production and Cogeneration Facilities. Docket No. RM79-54, issued June 27, 1979 (44 F.R. 38873, July 3, 1979).

study on the effect of these rules on this technology.

Biomass

The issuance of these rules provides incentives for small power production facilities utilizing biomass as a fuel source. The preliminary EA concludes that the possible adverse impacts to land use, soil, ecosystems and water resulting from the encouragement of biomass technology may be significant. The EA recommends additional study concerning the impact of these rules on the growth of biomass technology.

Wind Energy Conversion Systems

With regard to Wind Energy Conversion Systems (WECS), the preliminary EA determined that interference with electromagnetic radiation, hazards from blade throw, and danger of bird collision may occur. The level of these effects is not considered to comprise a significant adverse environmental effect.

Geothermal Technology

The preliminary EA finds that geothermal technology may affect air and water quality. These impacts should not, however, be significant.

Small Hydro

The preliminary EA notes that qualification of hydroelectric facilities is limited to facilities at existing dams, or those facilities not requiring an impoundment. It points out that instances of significant environmental impact from facilities added at existing dams are rare. It further observes that almost all such facilities are subject to Commission licensing and that the Commission's licensing procedures will assure case-by-case review of any adverse effects associated with the construction or operation of these hydroelectric projects. The preliminary EA concludes that any adverse environmental effects of these rules with respect to hydroelectric facilities will not be significant.

Waste

The preliminary EA discusses the environmental effects of municipal, agricultural and industrial waste. The use of waste emissions. However, the use of wastes will reduce landfill requirements and municipal incinerator and recycling loads. Based on these positive environmental effects, the preliminary EA finds that the impact of the Commission's rules on these technologies will not significantly affect the environment.

Reduction of Utility Production of Energy and Construction of Capacity

By obtaining electric energy from cogeneration and small power production, utilities can reduce the burning of fuel and the construction of plants than would otherwise be required. These reductions will cause decreases in the adverse environmental effects associated with these activities. The preliminary EA thus concludes that in this respect the Commission's rules will have positive environmental effects.

Commission Findings

On the basis of the current record, the Commission has determined that, with certain exceptions, the proposed rules under sections 201 and 210 of PURPA will not constitute a major Federal action significantly affecting the quality of the human environment. The Commission recognizes that the existing record (including the preliminary Environmental Assessment) shows that the impact of the proposed rules on the use of biomass, centralized solar energy systems, and diesel cogeneration may significantly affect the environment.

The foregoing is not intended to indicate a final judgment that the proposed PURPA rules as applied to those technologies will significantly affect the environment. Rather, the Commission adopts the view that the proposed rules, if promulgated without modification, potentially could have significant effects as described in the preliminary Environmental Assessment.

The Commission invites public comment on (a) the finding that, except as specifically noted above, the proposed rules will not be a major Federal action significantly affecting the quality of the human environment; (b) the finding that under the conditions noted above there may be significant effects from the proposed rules; and (c) the possibility that any potentially significant adverse effects could be sufficiently mitigated or eliminated by modifying the proposed qualifying rules to reflect one or more of the alternatives discussed below.

Alternatives

The Commission believes that certain substantive or procedural modifications to the proposed rules might mitigate any potential adverse effects associated with the three technologies identified above. These modifications include:

(1) Setting a high minimum size cutoff for potentially environmentally harmful technologies;

(2) Setting restrictions on qualifying status for facilities using certain high emission fuels or failing to meet certain

FERC established emission control criteria or standards;

(3) Case-by-case review of the environmental impact of each qualifying facility;

(4) Limiting qualifying status to certain locations where environmental conditions are not too severe or limiting the density of such facilities in any given area;

(5) Limiting qualifying status to certain areas where the Federal, State, or local agency has expressly applicable environmental permitting requirements, emission standards, or other control measures or otherwise consents to these facilities being qualified, either by rule or on a case-by-case basis;

(6) Altering or reducing the types or extent of benefits available under section 210 to the qualifying facilities; and

(7) Provision for mandatory periodic review and reassessment by the Commission of the environmental impact of the PURPA rules and of the significance of that impact—present and projected—and, if warranted, the suspension, restriction, or prospective denial of further qualifications by the Commission.

The Commission seeks public comment on the possible modifications of the proposed rules described above or any other approach which may be helpful in resolving any environmental questions relating to this program. In addition, the Commission seeks comment on the conclusions reached in the preliminary EA concerning the environmental impacts of the various technologies affected by the Commission's rules.²

Continuation of Environmental Assessment

In addition to solicitation of public comment, the Commission has instructed the Staff to undertake further efforts to quantify the potential extent of risk to the environment from the proposed rules. Additional data will be collected and additional analysis will be performed in keeping with the concerns identified in the preliminary EA. At the end of this process a final Environmental Assessment will be issued.

On the basis of the complete record, the Commission will then make its final determination as to whether its proposed rules will be a major Federal action significantly affecting the quality of the human environment. If the

²The Environmental Assessment is available at the Commission's Office of Public Information, Room 1000, 825 North Capitol Street, N.E., Washington, D.C.

Commission finds that the rules will have no significant effect, than the Commission will proceed forward with these rulemakings in the usual fashion. If the Commission finds that, in some respects, the proposed rules are likely to have significant adverse environmental effects, it may take any of the following actions: (1) promulgate the proposed rules as final insofar as they pose no significant threat to the environment, but withhold promulgation of any part of the rules which would encourage the use of biomass, centralized solar energy systems, a diesel cogeneration, pending preparation of an EIS; (2) promulgate the proposed rules with such modifications as the Commission determines are necessary to assure that the final rules will not significantly affect the environment; or (3) withhold issuance of the final rules pending preparation of an environmental impact statement covering the entire scope of the proposed rules.

Comment Procedure

Any interested person may submit data, views and comments concerning these issues. Such comments should be addressed to the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, and should not be submitted later than December 1, 1979. An original and 14 conformed copies should be filed with the Commission, and should reference Docket No. RM79-55. Comments should indicate the name, title, mailing address, and telephone number of a person to whom communications concerning the proposal may be addressed. Written comments shall be placed in the Commission's public files and will be available for public inspection at the Commission's Office of Public Information, Room 1000, 825 North Capital Street, N.E., Washington, D.C., during regular business hours.

Comments received in response to the initial Notice of Proposed Rulemaking are part of the record in this proceeding and will be considered in the determination of the final rule.

In addition, the Commission will conduct public hearings in connection with the Notice of Proposed Rulemaking in Docket No. RM79-55 at which persons desiring to present views on these issues will have an opportunity to do so. The dates and location of these hearings will be announced in the near future.

By direction of the Commission.

Kenneth F. Plumb,
Secretary.

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"the difference between the interconnection costs and".

The corrected sentence should read, "These costs are limited to the difference between the interconnection costs and those costs which the purchasing utility would incur if it did not make such purchases but instead generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy from other sources."

Kenneth F. Plumb,

Secretary.

[FR Doc. 79-34044 Filed 11-1-79; 8:45 am]

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DEPARTMENT OF ENERGY

Federal Energy Regulatory
Commission

18 CFR Part 292

[Docket No. RM79-55]

Small Power Production and
Cogeneration—Rates and Exemptions;
Correction

October 30, 1979.

AGENCY: Federal Energy Regulatory
Commission.

ACTION: Erratum Notice.

SUMMARY: This notice contains a correction to § 292.108(b) of the Commission's proposed regulations in Docket No. RM79-55, (44 FR 61190, October 24, 1979).

FOR FURTHER INFORMATION CONTACT: Adam Wenner, Executive Assistant to the Associate General Counsel, Federal Energy Regulatory Commission, 825 North Capitol St., N.E., Washington, D.C. 20426, (202) 357-8171.

SUPPLEMENTARY INFORMATION: Note the following correction in the Commission's proposed rule, entitled "Small Power Production and Cogeneration—Rates and Exemptions," issued October 22, 1979 (44 FR 61190, October 24, 1979):

(1) At 44 FR 61204 in the second sentence paragraph (b) of § 292.108, "Costs of Interconnection," insert after "to" and before "those" the following: