

BACKGROUND

The Public Utility Regulatory Policies Act (PURPA) was enacted in 1978. A key purpose of PURPA was to encourage the development of cogeneration and renewable energy facilities in the United States. In addition, as stated in the law, PURPA was to encourage 1) the conservation of energy supplied by electric utilities; 2) optimal efficiency of electric utility facilities and resources, and 3) equitable rates for electric consumers.

The law has been amended several times. Most recently, it was amended by the Energy Independence and Security Act (EISA) of 2007. The federal EISA added four standards to PURPA, and one additional non-PURPA standard, under which a utility must make a determination about whether to adopt the standards by Dec. 19, 2009.

The EISA-07 amendments require each electric utility to consider each of the new standards as more specifically outlined below.

CONSIDERATION #1 - Integrated Resource Planning

Section 532 of the Energy Independence and Security Act of 2007 amends PURPA 111(d)(16) by adding a new standard that requires consideration of “Integrated Resource Planning” for electric utilities. The new standard reads as follows:

Each electric utility shall—

- (A) integrate energy efficiency resources into utility, State, and regional plans; and
- (B) adopt policies establishing cost-effective energy efficiency as a priority resource.

CONSIDERATION #2 - Rate Design Modifications to Promote Energy Efficiency Investments

Section 532 of the Energy Independence and Security Act of 2007 amends PURPA 111(d)(17) by adding a new standard that requires consideration of “Rate Design Modifications to Promote Energy Efficiency Investments.” The statute states:

- (A) IN GENERAL.—The rates allowed to be charged by any electric utility shall—
 - (i) align utility incentives with the delivery of cost-effective energy efficiency; and
 - (ii) promote energy efficiency investments.
- (B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—
 - (i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;
 - (ii) providing utility incentives for the successful management of energy efficiency programs;
 - (iii) including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;
 - (iv) adopting rate designs that encourage energy efficiency for each customer class;
 - (v) allowing timely recovery of energy efficiency-related costs; and

(vi) offering home energy audits, offering demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing Federal and State incentives, including the availability of low-cost loans, that make energy efficiency improvements more affordable.

CONSIDERATION #3 – Consideration of Smart Grid Investments

The smart grid title of EISA of 2007 amends PURPA by adding two additional standards that state regulatory authorities and non-regulated entities must consider and make a determination as to whether to adopt, modify or reject.

Section 1307 (PURPA standard (16)) of the statute (“State Consideration of Smart Grid”) states:

(A) IN GENERAL- Each State shall consider requiring that, prior to undertaking investments in nonadvanced grid technologies, an electric utility of the State demonstrate to the State that the electric utility considered an investment in a qualified smart grid system based on appropriate factors, including

- (i) total costs;
- (ii) cost-effectiveness;
- (iii) improved reliability;
- (iv) security;
- (v) system performance; and
- (vi) societal benefit.

(B) RATE RECOVERY- Each State shall consider authorizing each electric utility of the State to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified smart grid system, including a reasonable rate of return on the capital expenditures of the electric utility for the deployment of the qualified smart grid system.

(C) OBSOLETE EQUIPMENT- Each State shall consider authorizing any electric utility or other party of the State to deploy a qualified smart grid system to recover in a timely manner the remaining book-value costs of any equipment rendered obsolete by the deployment of the qualified smart grid system, based on the remaining depreciable life of the obsolete equipment.

CONSIDERATION #4 - Smart Grid Information

(A) STANDARD- All electricity purchasers shall be provided direct access, in written or electronic machine-readable form as appropriate, to information from their electricity provider as provided in subparagraph (B).

(B) INFORMATION- Information provided under this section, to the extent practicable, shall include:

- (i) PRICES- Purchasers and other interested persons shall be provided with information on—
 - (I) time-based electricity prices in the wholesale electricity market; and

- (II) time-based electricity retail prices or rates that are available to the purchasers.
 - (ii) USAGE- Purchasers shall be provided with the number of electricity units, expressed in kwh, purchased by them.
 - (iii) INTERVALS AND PROJECTIONS- Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information, where available, and shall include a dayahead projection of such price information to the extent available.
 - (iv) SOURCES- Purchasers and other interested persons shall be provided annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.
- (C) ACCESS- Purchasers shall be able to access their own information at any time through the Internet and on other means of communication elected by that utility for Smart Grid applications. Other interested persons shall be able to access information not specific to any purchaser through the Internet. Information specific to any purchaser shall be provided solely to that purchaser.

CONSIDERATION #5 - Additional Incentives for Recovery, Use, and Prevention of Industrial Waste Energy

The Energy Independence and Security Act of 2007 contained a standard for states and nonregulated utilities to consider that is not an amendment to PURPA. While some of the provisions for consideration are similar to the PURPA standards, this standard has distinctive requirements written as part of the standard's statutory language. This standard is in section 374 of EISA that is titled, "Additional Incentives for Recovery, Use, and Prevention of Industrial Waste Energy."

(a) CONSIDERATION OF STANDARD.—

- (1) IN GENERAL.—Not later than 180 days after the receipt by a State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority), or nonregulated electric utility, of a request from a project sponsor or owner or operator, the State regulatory authority or nonregulated electric utility shall—
 - (A) provide public notice and conduct a hearing respecting the standard established by subsection (b); and
 - (B) on the basis of the hearing, consider and make a determination whether or not it is appropriate to implement the standard to carry out the purposes of this part.
- (2) RELATIONSHIP TO STATE LAW.—For purposes of any determination under paragraph (1) and any review of the determination in any court, the purposes of this section supplement otherwise applicable State law.
- (3) NONADOPTION OF STANDARD.—Nothing in this part prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any standard described in paragraph (1), pursuant to authority under otherwise applicable State law.

(b) STANDARD FOR SALES OF EXCESS POWER.—For purposes of this section, the standard referred to in subsection (a) shall provide that an owner or operator of a waste energy recovery project identified on the Registry that generates net excess power shall be eligible to benefit from at least 1 of the options described in subsection (c) for disposal of the net excess power in accordance with the rate conditions and limitations described in subsection (d).

(c) OPTIONS.—The options referred to in subsection (b) are as follows:

(1) **SALE OF NET EXCESS POWER TO UTILITY.**—The electric utility shall purchase the net excess power from the owner or operator of the eligible waste energy recovery project during the operation of the project under a contract entered into for that purpose.

(2) **TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTY.**—The electric utility shall transmit the net excess power on behalf of the project owner or operator to up to 3 separate locations on the system of the utility for direct sale by the owner or operator to third parties at those locations.

(3) **TRANSPORT OVER PRIVATE TRANSMISSION LINES.**—The State and the electric utility shall permit, and shall waive or modify such laws as would otherwise prohibit, the construction and operation of private electric wires constructed, owned, and operated by the project owner or operator, to transport the power to up to 3 purchasers within a 3-mile radius of the project, allowing the wires to use or cross public rights-of-way, without subjecting the project to regulation as a public utility, and according the wires the same treatment for safety, zoning, land use, and other legal privileges as apply or would apply to the wires of the utility, except that—

(A) there shall be no grant of any power of eminent domain to take or cross private property for the wires; and

(B) the wires shall be physically segregated and not interconnected with any portion of the system of the utility, except on the customer side of the revenue meter of the utility and in a manner that precludes any possible export of the electricity onto the utility system, or disruption of the system.

(4) **AGREED ON ALTERNATIVES.**—The utility and the owner or operator of the project may reach agreement on any alternate arrangement and payments or rates associated with the arrangement that is mutually satisfactory and in accord with State law.

(d) RATE CONDITIONS AND CRITERIA.—

(1) **DEFINITIONS.**—In this subsection:

(A) **PER UNIT DISTRIBUTION COSTS.**—The term ‘per unit distribution costs’ means (in kilowatt hours) the quotient obtained by dividing—

(i) the depreciated book-value distribution system costs of a utility; by

(ii) the volume of utility electricity sales or transmission during the previous year at the distribution level.

(B) **PER UNIT DISTRIBUTION MARGIN.**—The term ‘per unit distribution margin’ means—

(i) in the case of a State-regulated electric utility, a per-unit gross pretax profit equal to the product obtained by multiplying—

(I) the State-approved percentage rate of return for the utility for distribution system assets; by

(II) the per unit distribution costs; and

(ii) in the case of a nonregulated utility, a per unit contribution to net revenues determined multiplying—

(I) the percentage (but not less than 10 percent) obtained by dividing—

(aa) the amount of any net revenue payment or contribution to the owners or subscribers of the nonregulated utility during the prior year; by

(bb) the gross revenues of the utility during the prior year to obtain a percentage; by

(II) the per unit distribution costs.

(C) PER UNIT TRANSMISSION COSTS.—The term ‘per unit transmission costs’ means the total cost of those transmission services purchased or provided by a utility on a per-kilowatt-hour basis as included in the retail rate of the utility.

(2) OPTIONS.—The options described in paragraphs (1) and (2) in subsection (c) shall be offered under purchase and transport rate conditions that reflect the rate components defined under paragraph (1) as applicable under the circumstances described in paragraph (3).

(3) APPLICABLE RATES.—

(A) RATES APPLICABLE TO SALE OF NET EXCESS POWER.—

(i) IN GENERAL.—Sales made by a project owner or operator of a facility under the option described in subsection (c)(1) shall be paid for on a per kilowatt hour basis that shall equal the full undiscounted retail rate paid to the utility for power purchased by the facility minus per unit distribution costs, that applies to the type of utility purchasing the power.

(ii) VOLTAGES EXCEEDING 25 KILOVOLTS.—If the net excess power is made available for purchase at voltages that must be transformed to or from voltages exceeding 25 kilovolts to be available for resale by the utility, the purchase price shall further be reduced by per unit transmission costs.

(B) RATES APPLICABLE TO TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTIES.—

(i) IN GENERAL.—Transportation by utilities of power on behalf of the owner or operator of a project under the option described in subsection (c)(2) shall incur a transportation rate that shall equal the per unit distribution costs and per unit distribution margin, that applies to the type of utility transporting the power.

(ii) VOLTAGES EXCEEDING 25 KILOVOLTS.—If the net excess power is made available for transportation at voltages that must be transformed to or from voltages exceeding 25 kilovolts to be transported to the designated third-party purchasers, the transport rate shall further be increased by per unit transmission costs.

(iii) STATES WITH COMPETITIVE RETAIL MARKETS FOR ELECTRICITY.—In a State with a competitive retail market for electricity, the applicable transportation rate for similar transportation shall be applied in lieu of any rate calculated under this paragraph.

(4) LIMITATIONS.—

(A) IN GENERAL.—Any rate established for sale or transportation under this section shall—

(i) be modified over time with changes in the underlying costs or rates of the electric utility; and

(ii) reflect the same time-sensitivity and billing periods as are established in the retail sales or transportation rates offered by the utility.

(B) LIMITATION.—No utility shall be required to purchase or transport a quantity of net excess power under this section that exceeds the available capacity of the wires, meter, or other equipment of the electric utility serving the site unless the owner or operator of the project agrees to pay necessary and reasonable upgrade costs.

(e) PROCEDURAL REQUIREMENTS FOR CONSIDERATION AND DETERMINATION.—

(1) PUBLIC NOTICE AND HEARING.—

(A) IN GENERAL.—The consideration referred to in subsection (a) shall be made after public notice and hearing.

(B) ADMINISTRATION.—The determination referred to in subsection (a) shall be—

(i) in writing;

(ii) based on findings included in the determination and on the evidence presented at the hearing; and

(iii) available to the public.

(2) INTERVENTION BY ADMINISTRATOR.—The Administrator may intervene as a matter of right in a proceeding conducted under this section—

(A) to calculate—

(i) the energy and emissions likely to be saved by electing to adopt 1 or more of the options; and

(ii) the costs and benefits to ratepayers and the utility; and

(B) to advocate for the waste-energy recovery opportunity.

(3) PROCEDURES.—

(A) IN GENERAL.—Except as otherwise provided in paragraphs (1) and (2), the procedures for the consideration and determination referred to in subsection (a) shall be the procedures established by the State regulatory authority or the nonregulated electric utility.

(B) MULTIPLE PROJECTS.—If there is more than 1 project seeking consideration simultaneously in connection with the same utility, the proceeding may encompass all such projects, if full attention is paid to individual circumstances and merits and an individual judgment is reached with respect to each project.

(f) IMPLEMENTATION.—

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

(A) implement the standard determined under this section; or

(B) decline to implement any such standard.

(2) **NONIMPLEMENTATION OF STANDARD.**—

(A) **IN GENERAL.**—If a State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) or nonregulated electric utility declines to implement any standard established by this section, the authority or nonregulated electric utility shall state in writing the reasons for declining to implement the standard.

(B) **AVAILABILITY TO PUBLIC.**—The statement of reasons shall be available to the public.

(C) **ANNUAL REPORT.**—The Administrator shall include in an annual report submitted to Congress a description of the lost opportunities for waste-heat recovery from the project described in subparagraph (A), specifically identifying the utility and stating the quantity of lost energy and emissions savings calculated.

(D) **NEW PETITION.**—If a State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) or nonregulated electric utility declines to implement the standard established by this section, the project sponsor may submit a new petition under this section with respect to the project at any time after the date that is 2 years after the date on which the State regulatory authority or nonregulated utility declined to implement the standard.