#### **CHAPTER 8**

#### RENEWABLE ENERGY AND ENERGY EFFICIENCY

#### Authority

N.J.S.A. 48:2-13, 48:3-48 et seq., 48:3-78 et seq. and 48:3-99 to 106.

#### Source and Effective Date

R.2006 d.178, effective May 15, 2006. See: 37 N.J.R. 3911(a), 38 N.J.R. 2176(a).

#### **Chapter Expiration Date**

Chapter 8, Renewable Energy and Energy Efficiency, expires on April 18, 2011.

#### Chapter Historical Note

Chapter 8, Railroads, was recodified as 16:23 by R.1995 d.278, effective June 5, 1995. See: 27 N.J.R. 1155(a), 27 N.J.R. 2247(a).

Chapter 8, Renewable Energy and Energy Efficiency, was adopted as new rules by R.2006 d.178, effective May 15, 2006. Subchapter 2, Interim Renewable Energy Portfolio Standards, was recodified from N.J.A.C. 14:4-8 and renamed Subchapter 2, Renewable Portfolio Standards. See: Source and Effective Date. See, also, section annotations.

Subchapter 8, Standard Offer Contracts, was adopted as new rules by R.2007 d.215, effective July 16, 2007. See: 39 N.J.R. 158(a), 39 N.J.R. 2652(a).

Subchapter 5, Appliance Efficiency, Certification, and Testing Standards, was adopted as new rules by R.2008 d.4, effective January 7, 2008. See: 39 N.J.R. 349(a), 40 N.J.R. 187(a).

Subchapter 3, Environmental Information Disclosure, and Subchapter 4, Net Metering and Interconnection Standards For Class I Renewable Energy Systems, were adopted as new rules by R.2008 d.130, effective May 19, 2008. See: 39 N.J.R. 1405(a), 40 N.J.R. 2526(a).

#### **CHAPTER TABLE OF CONTENTS**

# SUBCHAPTER 1. RENEWABLE ENERGY GENERAL PROVISIONS AND DEFINITIONS

- 14:8-1.1 Applicability
- 14:8-1.2 Definitions

#### SUBCHAPTER 2. RENEWABLE PORTFOLIO STANDARDS

- 14:8-2.1 Purpose and scope
- 14:8-2.2 Definitions
- 14:8-2.3 Minimum percentage of renewable energy required
- 14:8-2.4 Compliance with solar electric generation requirements
- 14:8-2.5 Compliance with class I renewable energy requirements
- 14:8-2.6 Compliance with class II renewable energy requirements
- 14:8-2.7 Requirements that apply to both class I and class II renewable energy
- 14:8-2.8 Renewable Energy Certificates (RECs)
- 14:8-2.9 Board issuance of RECs
- 14:8-2.10 Alternative compliance payments (ACPs and SACPs)
- 14:8-2.11 Demonstrating compliance, reporting and recordkeeping 14:8-2.12 Enforcement

# SUBCHAPTER 3. ENVIRONMENTAL INFORMATION DISCLOSURE

- 14:8-3.1 Scope
- 14:8-3.2 (Reserved)

- 14:8-3.3 Definitions
- 14:8-3.4 Environmental information required
- 14:8-3.5 Determining the fuel and emissions characteristics
- 14:8-3.6 Methodology for developing a disclosure label
- 14:8-3.7 Disclosure information updating and reporting requirements
- 14:8-3.8 Environmental disclosure distribution
- 14:8-3.9 Certification by an independent entity
- 14:8-3.10 Verification and penalties
- APPENDIX A. LABEL BASED ON ACTUAL GENERATION DATA

#### APPENDIX B. LABEL FOR NEW PRODUCT BASED ON AN ENVIRONMENTAL CLAIM

- APPENDIX C. LABEL FOR NEW PRODUCT BASED ON DEFAULT INFORMATION
- APPENDIX D. (RESERVED)
- APPENDIX E. DEFINITIONS OF FUEL TYPES
- APPENDIX F. BENCHMARK AND DEFAULT VALUES
- APPENDIX G. (RESERVED)
- APPENDIX H. LABEL UPDATE AND DISTRIBUTION TIMING REQUIREMENTS

#### SUBCHAPTER 4. NET METERING AND INTERCONNEC-TION STANDARDS FOR CLASS I RENEWABLE ENERGY SYSTEMS

- 14:8-4.1 Scope
- 14:8-4.2 Definitions
- 14:8-4.3 Net metering general provisions
  - 14:8-4.4 Meters and metering
  - 14:8-4.5 General interconnection provisions
- 14:8-4.6 Certification of customer-generator facilities
- 14:8-4.7 Level 1 interconnection review
- 14:8-4.8 Level 2 interconnection review
- 14:8-4.9 Level 3 interconnection review
- 14:8-4.10 Interconnection fees
- 14:8-4.11 Requirements after approval of an interconnection

# SUBCHAPTER 5. APPLIANCE EFFICIENCY,

- CERTIFICATION, AND TESTING STANDARDS
- 14:8-5.1 Definitions
- 14:8-5.2 Purpose and scope
- 14:8-5.3 Standards and testing for commercial clothes washers
- 14:8-5.4 Standards and testing for commercial refrigerator, freezer and refrigerator-freezer equipment
- 14:8-5.5 Standards and testing for air-cooled central air conditioners and air-cooled central air conditioning heat pumps
- 14:8-5.6 Standards and testing for low-voltage dry type distribution transformers
- 14:8-5.7 Standards and testing for exit signs, torchieres, traffic signals, and unit heaters
- 14:8-5.8 Certification
- 14:8-5.9 Enforcement

#### SUBCHAPTERS 6 THROUGH 7. (RESERVED)

#### SUBCHAPTER 8. STANDARD OFFER CONTRACTS

- 14:8-8.1 Applicability
- 14:8-8.2 Definitions
- 14:8-8.3 Term of existing Standard Offer contracts

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### 14:8-1.1

#### SUBCHAPTER 1. RENEWABLE ENERGY GENERAL PROVISIONS AND DEFINITIONS

# 14:8-1.1 Applicability

(a) This chapter applies to the following, as these terms are defined at N.J.A.C. 14:4-1.2 and 14:8-1.2:

- 1. Electric public utilities, also known as EDCs;
- 2. Electric power suppliers;
- 3. BGS providers;
- 4. Renewable energy customer-generators; and
- 5. Clean power marketers.

# 14:8-1.2 Definitions

The following words and terms, when used in this chapter, shall have the following meanings unless the context clearly indicates otherwise. Additional definitions that apply to this chapter can be found at N.J.A.C. 14:3-1.1 and 14:4-1.2.

"Class I renewable energy" means electric energy produced from solar technologies, photovoltaic technologies, wind energy, fuel cells powered by renewable fuels, geothermal technologies, wave or tidal action, and/or methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner. Types of class I renewable energy that qualify for use in meeting the requirements of this subchapter are set forth at N.J.A.C. 14:8-2.5.

"Class II renewable energy" means electric energy produced at a resource recovery facility or hydro power facility, provided that such facility is located where retail competition is permitted and provided further that the Commissioner of Environmental Protection has determined that such facility meets the highest environmental standards and minimizes any impacts to the environment and local communities. Types of class II renewable energy that qualify for use in meeting the requirements of this subchapter are set forth at N.J.A.C. 14:8-2.6.

"Fossil fuel" means natural gas, petroleum, coal, or any form, of solid, liquid, or gaseous fuel derived from such material.

"Net metering" means a system of metering electricity in which the EDC:

1. Credits a customer-generator at the full retail rate for each kilowatt-hour produced by a class I renewable energy system installed on the customer-generator's side of the electric revenue meter, up to the total amount of electricity used by that customer during an annualized period; and

2. Compensates the customer-generator at the end of the annualized period for any remaining credits, at a rate

equal to the supplier/provider's avoided cost of wholesale power.

"NJDEP" means the New Jersey Department of Environmental Protection.

"Renewable energy" means class I renewable energy or class II renewable energy, as those terms are defined in this section.

"Societal benefits charge" or "SBC" means a charge imposed by an electric public utility, at a level determined by the Board, in accordance with N.J.S.A. 48:3-60.

"Solar electric generation" means creation of electricity using a system that employs solar radiation to produce energy that powers an electric generator. Solar electric generation includes technologies that utilize the photovoltaic effect. Solar electric generation is a type of class I renewable energy.

"Supplier/provider" means an electric power supplier or a basic generation service provider, as these terms are defined at N.J.A.C. 14:4-1.2.

### SUBCHAPTER 2. RENEWABLE PORTFOLIO STANDARDS

## 14:8-2.1 Purpose and scope

(a) Each supplier/provider, as defined at N.J.A.C. 14:8-1.2, that sells electricity to retail customers in New Jersey, shall include in its electric energy portfolio electricity generated from renewable energy sources. This subchapter is designed to encourage the development of renewable sources of electricity and new, cleaner generation technology; minimize the environmental impact of air pollutant emissions from electric generation; reduce possible transport of emissions and minimize any adverse environmental impact from deregulation of energy generation; and support the reliability of the supply of electricity in New Jersey.

(b) This subchapter governs the retail electricity sales of each supplier/provider, as defined in N.J.A.C. 14:8-1.2. This subchapter does not govern installed capacity obligations, as defined at N.J.A.C. 14:8-2.2.

(c) This subchapter does not apply to a private or government aggregator that contracts for electric generation service or electric related services, either separately or bundled, for its own facilities or on behalf of other business and residential customers in this State. This subchapter does not apply to an energy agent, as defined at N.J.A.C. 14:8-1.2. A supplier/ provider that is contractually obligated to sell electricity to an aggregator shall comply with this subchapter by including the amount sold to the aggregator as part of its energy portfolio.

Amended by R.2004 d.151, effective April 19, 2004. See: 35 N.J.R. 4445(a), 36 N.J.R. 2053(b). Rewrote the section. 14:8-2.3, based on electricity generated by a solar electric generation facility. The Board may, after public notice, issue an order discontinuing Board issuance of such RECs and/or approving use of such RECs issued by PJM Interconnection or another entity for compliance with this subchapter.

(b) In measuring generation in order to determine the number of RECs to issue, the Board or its designee shall accept either of the following measurement methods, as applicable:

1. Periodic readings of a meter that records megawatthour production of electrical energy. The readings may be taken or submitted by any person, but shall be verified by the Board or its designee; or

2. For a solar electricity system with a capacity of less than 10 kilowatts, annual engineering estimates and/or monitoring protocols approved by the Board. Acceptable estimation methodologies and monitoring protocols are located on the Board's website at <u>www.njcleanenergy.com</u>. This method is not applicable for class I RECs.

(c) The Board or its designee shall issue RECs in whole units, each representing the environmental attributes of one megawatt-hour of electric generation.

(d) To qualify for issuance of a REC, electric generation shall be produced by a generating facility that is interconnected with an electric distribution system, as defined at N.J.A.C. 14:8-2.2, that supplies New Jersey; or, for class I renewable energy other than solar electric generation, the electric generation need not be interconnected with an electric distribution system that supplies New Jersey if its sale is settled in the PJM wholesale market. The Board may waive this requirement by Board order if the Board determines that such waiver would facilitate participation in the regional REC tracking system adopted by the Board.

(e) (Reserved)

(f) If a REC is to be used for RPS compliance for a reporting year, the application for the REC shall be submitted within the reporting year, or within the true-up period immediately following the reporting year.

(g) If a generator has accumulated a fraction of a megawatt hour by the end of a reporting year, the fraction may be carried over and combined with energy generated in one or more subsequent reporting years in order to make a full megawatt hour that is eligible for a REC. In such a case, the combined energy shall be eligible for issuance of a REC only during the reporting year in which accumulated generation reaches one full megawatt hour. Only a fraction of a megawatt hour shall be carried over. If a full megawatt hour is generated by the end of a reporting year and an application for a REC is not submitted by the end of the true-up period immediately following the reporting year, the megawatt hour shall not be eligible for a REC and shall not be usable for RPS compliance.

(h) Because each true-up period is also the first three months of a new reporting year, an REC based on energy

generated during this three-month period shall be used only for RPS compliance for the new reporting year; provided however, that a solar REC generated during that three-month period can be used for compliance either in the new reporting year or the immediately subsequent reporting year.

(i) A request for issuance of a solar REC or class I RECs shall be submitted to the Board on a form posted on the Board's website at <u>www.njcleanenergy.com</u>. The Board shall require submittal of information and certifications needed to enable the Board or its designee to verify the generation that forms the basis of the requested RECs. The Board shall require inspections of generation equipment, monitoring and metering equipment, and other facilities relevant to verifying electric generation. The Board shall impose application fees, inspection fees, and/or other charges for work required to verify electric generation and issue RECs.

(j) Each REC shall include the following:

1. The date upon which or period during which the electricity was generated;

2. The date upon which the REC was issued;

3. A unique tracking number, assigned by the issuer of the REC; and

4. An expiration date. The expiration date of a solar REC shall be the last day of the true-up period following the reporting year after the reporting year in which the energy that formed the basis for the solar REC was generated. The expiration date of an REC other than a solar REC shall be the last day of the true-up period following the reporting year in which the energy that formed the basis for the REC was generated.

(k) The Board or its designee shall not issue a REC based on electric generation that has previously been used for compliance with this subchapter, or that has been used to satisfy another state's renewable energy requirements or any voluntary clean electricity market or program.

(1) The Board or its designee shall not issue a solar REC based on electricity generated by a solar electric generation facility after the end of its qualification life. However, the Board or its designee may issue class I RECs based on electricity generated by the facility after the end of its qualification life; such class I RECs may be used for compliance with the requirements in N.J.A.C. 14:8-2.3, Table A, for class I renewable energy.

(m) A customer-generator that is eligible for net metering owns the renewable attributes of the energy it generates on or after October 4, 2004, unless there is a contract with an express provision that assigns ownership of the renewable attributes. The owner of a solar electric generation facility that is not eligible for net metering owns the renewable attributes of the energy it generates on or after March 16, 2009, unless there is a contract with an express provision that assigns ownership of the renewable attributes. New Rule, R.2004 d.151, effective April 19, 2004.

See: 35 N.J.R. 4445(a), 36 N.J.R. 2053(b).

Amended by R.2005 d.87, effective March 7, 2005.

See: 36 N.J.R. 1892(a), 37 N.J.R. 787(a).

Rewrote (a) and (e).

Recodified from N.J.A.C. 14:4-8.9 and amended by R.2006 d.178, effective May 15, 2006.

See: 37 N.J.R. 3911(a), 38 N.J.R. 2176(a).

Rewrote the section. Former N.J.A.C. 14:4-8.9 heading was "Board issuance of solar RECs'

Special amendment, R.2008 d.175, effective May 23, 2008 (to expire November 23, 2009).

See: 40 N.J.R. 3751(a).

Rewrote (a); deleted and reserved (e); in (i), deleted "based on electricity generated on a customer-generator's premises" following "class I RECs"; added new reserved (1); recodified former (1) as (m); and in (m), substituted "A" for "In accordance with N.J.A.C. 14:8-4.3, a" in the first sentence and inserted the second sentence.

Amended by R.2009 d.91, effective March 16, 2009.

See: 40 N.J.R. 3586(a), 41 N.J.R. 1261(a). In (d), substituted "an" for "a" preceding the first occurrence of "REC , deleted "and" preceding the first occurrence of "determines" and inserted "and determines that such a waiver would significantly advance the purposes expressed in N.J.A.C. 14:8-2.1(a)"; rewrote (h); rewrote (j)4; added new (l); in (m), substituted "March 16, 2009" for "May 23. 2008"; and made permanent the special amendments previously adopted as R.2008 d.175.

Public Notice.

See: 41 N.J.R. 1532(b).

Amended by R.2009 d.266, effective September 8, 2009.

See: 40 N.J.R. 6759(a), 40 N.J.R. 6955(b), 41 N.J.R. 3309(a).

In (d), inserted "; or, for class I renewable energy other than solar electric generation, the electric generation need not be interconnected with an electric distribution system that supplies New Jersey if its sale is settled in the PJM wholesale market", deleted "adopts a joint or regional REC tracking system, and" preceding "determines", and inserted "regional REC tracking" and "adopted by the Board".

#### 14:8-2.10 Alternative compliance payments (ACPs and SACPs)

(a) A supplier/provider may choose to submit one or more alternative compliance payments (ACPs) or solar alternative compliance payments (SACPs), as those terms are defined in N.J.A.C. 14:8-2.2, in lieu of supplying the percentage of renewable energy required under Table A in N.J.A.C. 14:8-2.3. A supplier/provider that wishes to use ACPs or SACPs to comply with this subchapter shall meet the requirements of this section.

(b) The President of the Board shall appoint an ACP advisory committee to provide recommendations to the Board regarding the appropriate cost of ACPs, as well as other characteristics of their use. The Board shall consider the advisory committee's recommendation and shall, through Board order, set prices for ACPs and SACPs. At a minimum, the price of an ACP or an SACP shall be higher than the estimated competitive market cost of the following:

1. The cost of meeting the requirement through purchase of a REC or solar REC; or

2. The cost of meeting the requirement through generating the required renewable energy.

(c) The Board shall review the amount of ACPs other than SACPs at least once per year, in consultation with the ACP

advisory committee, and shall adjust these amounts as needed to comply with (b)1 and 2 above and to reflect changing conditions in the environment, the energy industry, and markets. The purposes of the review shall include providing the Board with supporting information to establish the amount of the SACP for the first reporting year for which no SACP has been established in Table C below, in consultation with the ACP advisory committee, based on the Board's determination of what will be needed to comply with (b)1 and 2 above in that reporting year.

(d) To comply with this subchapter using ACPs or SACPs, a supplier/provider shall submit the following to the Board, as applicable:

1. One ACP for each megawatt-hour of class I or class II renewable energy required; or

2. One SACP for each megawatt-hour of solar electric generation required.

(e) The Board shall use the ACP monies submitted to meet the requirements of this subchapter to fund renewable energy projects through the Clean Energy Program. The Board shall use SACP monies to fund solar energy projects through the New Jersey Clean Energy Program.

(f) Table C sets forth the SACP for each reporting year from reporting year 2009 through reporting year 2016:

### Table C

#### SACP Schedule

Reporting Year	<u>SACP</u>
June 1, 2008 - May 31, 2009	\$711.00
June 1, 2009 - May 31, 2010	\$693.00
June 1, 2010 - May 31, 2011	\$675.00
June 1, 2011 - May 31, 2012	\$658.00
June 1, 2012 - May 31, 2013	\$641.00
June 1, 2013 - May 31, 2014	\$625.00
June 1, 2014 - May 31, 2015	\$609.00
June 1, 2015 - May 31, 2016	\$594.00

New Rule, R.2004 d.151, effective April 19, 2004.

See: 35 N.J.R. 4445(a), 36 N.J.R. 2053(b). Recodified from N.J.A.C. 14:4-8.10 and amended by R.2006 d.178, effective May 15, 2006.

See: 37 N.J.R. 3911(a), 38 N.J.R. 2176(a).

Changed internal references to conform to the recodification of provisions in the first sentence of (a).

Amended by R.2009 d.91, effective March 16, 2009.

See: 40 N.J.R. 3586(a), 41 N.J.R. 1261(a).

In (c), substituted "other than" for "and" preceding "SACPs" and inserted the last sentence; and added (f).

Public Notice.

See: 41 N.J.R. 1532(b).

#### Demonstrating compliance, reporting and 14:8-2.11 recordkeeping

(a) By October 1st of each year, each supplier/provider shall file an annual report with the Board, demonstrating that the supplier/provider has met the requirements of this subchapter for the preceding reporting year (that is, for the reporting year ending May 31st of the same calendar year).

(b) If the annual report required under (a) above does not demonstrate that the supplier/provider has supplied the RECs or solar RECs required under Table A of N.J.A.C. 14:8-2.3 for the previous reporting year, the annual report shall be accompanied by ACPs and/or SACPs in sufficient quantities to make up the shortfall.

(c) The annual report shall contain the following basic information for the preceding reporting year:

1. The total number of megawatt-hours of electricity sold to retail customers in New Jersey;

2. The total number of megawatt hours of electricity sold to retail customers in New Jersey that qualify as class I renewable energy under N.J.A.C. 14:8-2.4;

3. The percentage of the supplier/provider's total New Jersey retail sales that the amount set forth under (c)2 above represents:

4. The total number of megawatt hours of electricity sold to retail customers in New Jersey that qualify as class II renewable energy under N.J.A.C. 14:8-2.5;

5. The percentage of the supplier/provider's total New Jersey retail sales that the amount set forth under (c)4 above represents;

6. The total number of megawatt hours of electricity sold to retail customers in New Jersey that qualify as solar electric generation under N.J.A.C. 14:8-2.4;

7. The percentage of the supplier/provider's total retail sales that the amount in (b)6 above represents;

8. The total amount of solar electric generation, class I renewable energy, and class II renewable energy represented by RECs submitted with the annual report;

9. The total number of ACPs and/or SACPs submitted with the annual report;

10. A summary demonstrating how compliance with the requirements in Table A has been achieved; and

11. An accounting issued by PJM-EIS that shows the number of RECs purchased and/or held by the supplier/ provider.

(d) The documentation required under (c) above shall include the following:

1. Identification of each generating unit, including its location, fuel and technology type, and any unique State and/or Federal facility or plant identification number;

2. An affidavit from the operator of each generating unit that the specified amount of megawatt-hours from

each renewable energy source was generated by and/or sold to the supplier/provider and that the supplier/provider has sole and exclusive title to the renewable energy and has not been used to meet the RPS energy requirements in any other state or jurisdiction;

3. An affidavit from the supplier/provider that the specified megawatt-hours were delivered into the PJM region and complied with PJM Interconnection energy delivery rules; and

4. For each solar REC submitted, certification of compliance with the requirement at N.J.A.C. 14:8-2.4(b) that the REC has not been used to satisfy another state's renewable energy requirements. The certification shall be in a form required by the Board, and available on the BPU website at <u>www.njcleanenergy.com</u>.

(e) Failure of a supplier/provider to demonstrate compliance with this subchapter in accordance with this section, within the deadlines set forth in this section, shall subject the supplier/provider to penalties under N.J.A.C. 14:8-2.12.

(f) Each supplier/provider shall keep all records pertaining to the requirements in this subchapter for a period of five years, including data on megawatt-hours resulting from owned generation, contracts, purchases from the wholesale market, and purchases of RECs. Each supplier/provider shall make all pertinent records available for review upon request by the Board or its designee.

New Rule, R.2004 d.151, effective April 19, 2004.

See: 35 N.J.R. 4445(a), 36 N.J.R. 2053(b).

Recodified from N.J.A.C. 14:4-8.11 and amended by R.2006 d.178, effective May 15, 2006.

See: 37 N.J.R. 3911(a), 38 N.J.R. 2176(a).

Changed internal references to conform to the recodification of provisions in (b), (c), (d) and (e); deleted the exception from the end of (a); in (b), substituted "RECs or solar RECs" for "energy" and deleted "RECs, solar RECs," preceding "ACPs"; in (c), substituted "; and" for a period at the end of 10. and inserted 11.; substituted "<u>www.njcleanenergy.com</u>" for "<u>www.bpu.state.nj.us</u>" in (d)4.; deleted (e); recodified (f) and (g) as (e) and (f); and deleted (h) through (j).

Amended by R.2009 d.91, effective March 16, 2009.

See: 40 N.J.R. 3586(a), 41 N.J.R. 1261(a).

In (a), substituted "October" for "September".

Public Notice.

See: 41 N.J.R. 1532(b).

#### 14:8-2.12 Enforcement

(a) Failure to comply with any provision of this subchapter shall subject the violator to the following penalties in accordance with the Board's regulatory and statutory authority:

1. Suspension or revocation of the electric power supplier's license;

- 2. Financial penalties;
- 3. Disallowance of recovery of costs in rates; and
- 4. Prohibition on accepting new customers.

(b) In determining the appropriate sanction, the Board shall consider the following criteria and any other factors deemed appropriate and material to the electric power supplier's or basic generation service provider's failure to comply:

1. The good faith efforts, if any, of the entity charged in attempting to achieve compliance;

2. The gravity of the violation or failure to comply with the requirements in this subchapter;

3. The number of past violations by the entity charged regarding these standards and other standards adopted by the Board; and

4. The appropriateness of the sanction or fine to the size of the company charged.

Recodified from N.J.A.C. 14:4-8.8 and amended by R.2004 d.151, effective April 19, 2004.

See: 35 N.J.R. 4445(a), 36 N.J.R. 2053(b).

Added a new (a); deleted (b); recodified former (b)i through iv as (a)1 through 4; recodified former (c) as (b), and in (b)3, deleted "interim" preceding "standards".

Recodified from N.J.A.C. 14:4-8.12 and amended by R.2006 d.178, effective May 15, 2006.

See: 37 N.J.R. 3911(a), 38 N.J.R. 2176(a).

Former N.J.A.C. 14:4-8.12, heading was "Penalties".

# SUBCHAPTER 3. ENVIRONMENTAL INFORMATION DISCLOSURE

#### 14:8-3.1 Scope

(a) Each electricity supplier or basic generation service provider serving retail customers in the State is required to disclose to such customers, including residential, commercial and industrial customers, a uniform, common set of information about the environmental characteristics of the energy purchased by the customer. The environmental information shall be published in a standardized label format, set forth in N.J.A.C. 14:8-3 Appendices A, B, and C, incorporated herein by reference, and distributed as part of the customer's billing materials and on customer contracts and marketing materials. This disclosure requirement is mandatory and applies to every electricity supplier and every electricity product, regardless of whether or not the supplier is making an environmental claim about the electricity product. The environmental information to be disclosed to the customer includes the following, as illustrated in Appendices A, B, and C:

1. The fuel mix associated with the generation of the electricity, including categories for coal, gas, hydroelectric (large), nuclear, oil and renewable energy, or regional average default values as determined by the New Jersey Board of Public Utilities;

2. Air emissions, in pounds per megawatt hour, of sulfur dioxide, carbon dioxide, oxides of nitrogen, and any other pollutants that are associated with the generation of the electricity and that the Board may determine to pose an environmental or health hazard, or emissions default values determined by the Board; and

3. The electricity supplier's support of energy efficiency, as reflected in the number of discrete emission reduction credits that are based on energy conservation measures and that are retired pursuant to rules adopted pursuant to P.L. 1995, c. 188.

(b) For the label in Appendix A, the environmental information shall be values based on actual data; for the label in Appendix B, the environmental information shall be a commitment by the supplier as to the electricity to be provided over the next year; and for the label in Appendix C, the environmental information shall be default values or averages determined in accordance with this subchapter.

(c) Electricity suppliers shall be permitted to elect whether to sell their entire portfolio of electricity supply as a single electricity product or to disaggregate their portfolio into distinct electricity products in accordance with N.J.A.C. 14:4-3.6(e).

(d) Environmental disclosure pertains to electricity purchases and not installed capacity purchases.

#### 14:8-3.2 (Reserved)

#### 14:8-3.3 Definitions

(a) The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise. In addition, definitions set forth at N.J.A.C. 14:3-1.1 and 14:4-1.2 shall apply to this subchapter, unless the context clearly indicates otherwise.

"Benchmark" means a reference point, describing emissions levels, to allow customers to make comparisons among alternative electricity products offered by suppliers. That is, a point of comparison for the air emissions associated with the electricity product being offered or sold to the customer. The specific benchmarks shall be based on the most recent data available from the Energy Information Administration and shall reflect the average emission rate of all electric generating units in New Jersey for SO<sub>2</sub>, CO<sub>2</sub>, and NO<sub>x</sub>.

"Bilateral contract" or "bilateral wholesale contract" means a unit or system contract, or a contract for specified resources, between an electricity supplier and a generating company or between an electricity supplier and a wholesale power marketer.

"Contract for specified resources" means a contract between an electricity supplier and a generating company or wholesale power marketer:

1. In which the types of generating resources that may supply the electricity are specified, along with any other environmental criteria applicable to those resources; 2. Which requires the generating company or wholesale power marketer to deliver the resources into the PJM control area, or for Orange & Rockland, into the New York Power Pool (NYPP); and

14:8-3.3

3. Which requires that the generating company or wholesale power marketer be able to identify, after the fact, and establish an audit trail to verify, the specific generating unit or units used to supply the contracts and to establish that the energy was generated and delivered into the PJM control area, or for Orange & Rockland, into the NYPP, and was not sold more than once.

"Default values" means the fuel mix and air emissions information set forth by the Board that electricity suppliers shall be allowed to disclose to retail customers in place of the actual fuel mix and air emissions information data, when required to do so pursuant to this subsection. The default value for fuel mix (energy source) is set forth in Appendix F, Table I. The default value for air emissions shall be the PJM average adjusted, as set forth in Appendix F, Table II.

"Electric generating unit" means a unit that generates electricity, if the owner or operator of the unit sells any portion of the electricity generated by the unit (or where the electricity produced by the unit is co-mingled at the facility at which the unit is located with electricity produced by another unit, sells any portion of the co-mingled electricity).

"Electricity supplier" has the same meaning as "electric power supplier," as defined at N.J.A.C. 14:4-1.2.

"Energy Information Administration" means the Energy Information Administration of the United States Department of Energy.

"Environmental characteristics" means, in respect to electricity that is supplied to a retail customer:

1. The fuel mix used to provide the energy; and

2. The amount of emissions associated with electric generating resources that produced the electricity.

"Fuel" means the material used in an electric generating unit to provide the energy to produce electricity.

"Generating company" means a company that owns electric generating resources.

"Generator" means a device that produces electricity.

"Incumbent utility" means, in New Jersey, the following electric public utilities: Atlantic Electric Company, GPU Energy, Rockland Electric Company and Public Service Electric and Gas Company or, as applicable, their corporate successors.

"Imported power" means electricity sold into the PJM control area from another control area.

"Load-serving entity" or "LSE" means an electric utility providing basic generation service, or an entity or organization that is licensed to serve retail load in New Jersey, otherwise referred to as an electricity supplier.

"On-site generation facility" means a generation facility, and equipment and services appurtenant to electric sales by such facility to the end use customer located on the property or on property contiguous to the property on which the end user is located. An on-site generation facility shall not be considered a public utility. The property of the end use customer and the property on which the on-site generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an easement, public thoroughfare, transportation or utility-owned right-of-way.

"Owned generation" means electric power produced by electric generating resources located within the PJM control area that are owned by an electricity supplier. However, an electricity supplier that is an unregulated affiliate of an incumbent utility shall not be considered an owner of electric generating resources that are owned by such utility.

"Program Administrator" means the office, to be established by the Board, to implement and oversee New Jersey's environmental information disclosure program.

"Retail load" means the demand of retail customers for electricity.

"Schedule" means the process by which a generator, electricity supplier, or wholesale power marketer informs the PJM ISO or the NYPP ISO (in the case of Rockland Electric), or the PJM ISO or NYPP ISO itself determines, that a specific generating unit or units will operate for a specific period of time.

"Spot market" means the regional market administered by the PJM ISO in which electricity is scheduled by the PJM ISO for purchase and sale on the basis of a bid price. This term does not include the scheduling of bilateral contracts for the purchase and sale of hourly energy based on bid prices submitted by market participants other than the PJM ISO.

"System contract" means a bilateral contract between an electricity supplier and a generating company, or between an electricity supplier and a wholesale power marketer, pursuant to which the supplier purchases a share of a generating company's system power, which is specifically identified in the contract and is backed by the generating company's assets, excluding power that is sold pursuant to unit contracts or contracts for specified resources.

"System power" means all of the electric power generated by all units that are owned by a single generating company and located within the control area from which the power is being sold, excluding power that is sold pursuant to unit contracts or contracts for specified resources. "Unit contract" means a contract between an electricity supplier and a generating company, or between an electricity supplier and a wholesale power marketer:

1. In which the generating unit or units are specified and receipt of electricity is tied to the performance of such unit or units;

2. For electricity for which the supplier has scheduled transmission into the PJM control area, or in Rockland & Orange's case, into the NYPP control area; and

3. With respect to which the control area operator in the generator's control area is able to verify the electricity being supplied was generated by the specified unit or units.

For the purposes of environmental disclosure, any contracts entered into under Federal PURPA or other similar State authority between an electric public utility serving retail load in New Jersey and an independent power producer shall be considered a unit contract.

"Wholesale electricity" means power sales or purchases that do not meet the definition of unit or system contracts, or contracts for specified resources.

(b) The following are measurements, abbreviations, and acronyms used in this subchapter:

Board or BPU	New Jersey Board of Public Utilities
Btu	British thermal unit
CO <sub>2</sub>	carbon dioxide
DER	Discrete Emission Reduction (credits)
EIA	Energy Information Administration
hr	hour
ISO	Independent System Operator
kWh	kilowatt hour
lb	pound
LSE	load-serving entity
mmBtu	million Btu
MWh	megawatt hour
NJDEP	New Jersey Department of
	Environmental Protection
NO <sub>X</sub>	nitrogen oxides (or oxides of nitrogen)
NUG	Non-utility generator
NYPP	New York Power Pool
OMET	open market emission trading
PJM	Pennsylvania/New Jersey/Maryland
	(control area)
SO <sub>2</sub>	sulfur dioxide
T & D	transmission and distribution
ton	2,000 pounds
USEPA	US Environmental Protection Agency

#### 14:8-3.4 Environmental information required

(a) Pursuant to the mandates embodied in P.L. 1999, c. 23, the rules for environmental disclosure to retail customers require every electric service supplier to provide the following:

1. Standardized environmental information: Environmental disclosure information distributed to retail customers shall contain the following information:

14:8-3.4

i. Fuel mix, expressed in percent of the electricity provided that has been produced from each fuel;

ii. Air emissions, expressed in pounds of emissions per megawatt-hour of electricity supplied (lbs/MWh); and

iii. The electricity supplier's support of energy efficiency, expressed in kilowatt hours (kWh) saved per year;

2. Fuel mix (energy source) information:

i. Electricity suppliers shall disclose to retail customers the fuels in the fuel mix associated with the generation of the electricity product being provided or offered using the following energy resource categories: coal, gas, hydroelectric (large), nuclear, oil, and renewable energy, including captured methane gas, fuel cells, geothermal, hydroelectric (small), solar, solid waste, wind and wood or other biomass.

ii. An electricity supplier making a prospective offer for a "renewable energy" product may not be able to predict the exact percentages of each renewable resource it will provide. In this case, the electricity supplier may list a percentage of its fuel mix as being from "renewable energy," without providing specific percentages for wind, solar, hydroelectric or other generating resources. In disclosure for existing products, based on a historical record, specific percentages shall be given for each renewable resource.

iii. If an electric power supplier or basic generator service provider arranges with a customer for the installation and use of fuel cells, geothermal technology, solar technology, or other renewable energy technologies to generate electricity, the supplier may claim the equivalent amount of electricity generated by the customergenerator as part of its renewable energy fuel mix. This shall not include renewable energy technologies funded through the Societal Benefits Charge;

3. Air emissions information: Each electricity supplier shall report for each electricity product it sells in New Jersey, the emissions of sulfur dioxide  $(SO_2)$ , oxides of nitrogen  $(NO_X)$  and carbon dioxide  $(CO_2)$ , based on a weighted average (expressed in lbs/MWh); and

4. Energy efficiency information: Each electricity supplier serving retail customers in New Jersey shall disclose, to its retail customers, the amount of electricity that has been saved through the supplier's investments in energy efficiency. This shall not include electricity saved under energy efficiency programs funded through the Societal Benefits Charge. The supplier shall report the amount of electricity savings, expressed in kilowatt hours, represented by the retirement of emissions credits based on the implementation of electrical energy efficiency measures. Such credits may be discrete emission reduction (DER) credits, generated pursuant to New Jersey's open market emissions trading (OMET) program (N.J.A.C. 7:27-30), or allow-ances allocated from the Incentive Reserve under New Jersey's NO<sub>X</sub> budget program. Documentation of the kWhs saved is a component of the quantification required for the generation or claiming of these credits; therefore, the value of the credits in kWhs can readily be determined by consulting this documentation. All electricity suppliers will be required to file each disclosure label with the Board or Program Administrator.

# 14:8-3.5 Determining the fuel and emissions characteristics

(a) For existing electricity products that have been offered for some period of time and are associated with a record of generation, the fuel mix and emissions information associated with such electricity products and disclosed on labels shall be based on "historical" data that reflect the generation of the power provided by the supplier in the preceding year. These existing products include electricity the utility provides pursuant to its basic generation service obligations. These disclosure labels shall reflect to the extent feasible the characteristics of the emissions and fuel mix information of the actual electric generating units or systems used by an electricity supplier to meet its retail load in the most recent 12-month period, or an approximation of such units or systems, developed pursuant to the methodologies set forth in N.J.A.C. 14:8-3.6.

1. Notwithstanding (a) above, where landfill gas or sewage or agricultural waste digester gas is co-fired in a fossil-fuel plant, a supplier may present the fuel mix and emissions characteristics associated with the landfill, sewage or agricultural waste digester gas alone, if the supplier has purchased the electricity generated from the landfill, sewage or agricultural waste digester gas separately and the fossil fuel generator has agreed not to reflect the fuel mix and emissions characteristics of the landfill, sewage or agricultural waste digester gas in disclosure regarding the fossil-fuel plant.

(b) For new products and for new market entrants in New Jersey, electricity suppliers will be permitted to disclose environmental information on a prospective basis for a period up to one year (four quarters).

1. If the new supplier, however, is making an environmental claim for its product, then it may not use the default values, but rather shall prospectively disclose fuel mix and emissions of the electricity it intends to provide for a period of at least 12 months. For products with environmental claims, the use of default values shall only be allowed for energy that is purchased from the spot market or wholesale electricity purchased by the supplier only if and as long as contractual information that can trace the energy to its originating system or unit is not available. 2. As of the beginning of the next quarter, once the 12month or 18-month period (as applicable) has ended, the supplier will commence providing a label based on historical information, as described in (b)1 above.

(c) New market entrants and electricity suppliers introducing new products may base their disclosure labels on prospective environmental claims for a period of 12 months. After the 12 months, the supplier will revise its disclosure labels to reflect the environmental information associated with the actual electric generating units or systems that generated the power it supplied during those first 12 months. Also following the 12 months, for the electricity it supplied during the 12-month period, the electric supplier will document that it has met the fuel mix and emissions specifications set forth in its prospective claims using one or more of the following, as applicable:

1. The emissions and fuel mix characteristics of electricity generated by owned units or systems;

2. The emissions and fuel mix characteristics of electricity that the electricity supplier purchased through unit or system contracts or contracts for specified resources that the electricity supplier enter into for electricity generated within PJM or for imported power, where the electricity supplier has filed with the Board or Program Administration documentation, which shows that the unit(s), specified resource(s) or system operated, that the electricity was transmitted to PJM and that the generating company has not sold the electricity to any other party; and

3. The default values for the fuel mix and emissions.

(d) As with disclosure based on historical data, electricity suppliers will determine the environmental characteristics of owned generation and electric power purchased through bilateral contracts by reference to information supplied by the generator or to publicly available information and will ascribe the default environmental characteristics set forth to all other resources.

(e) In determining whether a supplier has succeeded in documenting that the electricity provided has met the environmental claim for the new product, electricity suppliers will be permitted a margin of error. In respect to a claim for fuel mix, the claim will be considered to be met if the actual percentage of each given fuel type does not differ from the amount claimed by an amount equal to the lesser of 20 percent of the percentage indicated for any given fuel type or five percent of the total product. Thus, if an electricity supplier indicated that its product would include 10 percent wind power, it would be permitted to include between eight percent and 12 percent wind power. A product advertised as "90 percent hydropower" could range between 85 percent and 95 percent. In no case would the electricity supplier be allowed to serve its retail customers with power generated from fuels other than those claimed on the label. No margin of error for fuel mix shall be permitted for products comprised of 100 percent of a specified resource. In respect to emissions, an emissions claim will not be considered to be met if the emissions exceed the claim by more than five percent. Providing more than the specified percentage of renewable energy shall not constitute noncompliance with an environmental claim.

(f) A new market entrant that does not choose to base disclosure labels on prospective environmental claims shall disclose the default claim set forth by the Board for the emissions and fuel mix information for all products it sells in New Jersey for a period of 18 months, after which time it will update its disclosure labels to reflect actual electric generating units or systems that generated the power it supplied during those first 18 months.

## 14:8-3.6 Methodology for developing a disclosure label

(a) Each electricity supplier shall disclose the emissions and fuel mix associated with the electricity used to meet its retail load (except for new products) using information that is readily available to the supplier and verifiable by the Board or Program Administrator. The electricity will fall in one of the following categories:

1. Electricity generated by units owned by the supplier;

2. Electricity purchased by the supplier through bilateral unit contracts (including imported power);

3. Electricity purchased by the supplier through bilateral system contracts or contracts for specified resources (including imported power);

4. Wholesale electricity purchased by the supplier; and

5. Electricity purchased by the supplier from the spot market administered by the PJM ISO.

(b) With respect to electricity where its point of generation is known by the supplier (that is, owned generation or electricity generated or controlled by another company with which the supplier has a bilateral contract; and unit or system power scheduled with the PJM ISO for sale to the supplier), the supplier shall use the actual emission rates and fuel characteristics for the most recent year for which they are available pertaining to the specific electric generating units in determining the fuel mix and emissions values to be disclosed on its label. (See (d) below.) The supplier can determine these characteristics utilizing information that is reported to, and made available by, the U.S. Environmental Protection Agency and Energy Information Administration, or information supplied by the generator that is made available to and is verifiable by the Board or Program Administrator. Each electricity supplier that is relying on publicly available information to determine the actual emission rates and fuel characteristics associated with electricity supplied will use the most recent year for which data is available, to develop its disclosure labels. The source of publicly available information shall be the USEPA's Emissions and Generation Resource Integrated Database (EGRID), which can be accessed at: www.epa.gov/cleanenergy/egrid/index.htm.

1. These emission rates and fuel characteristics shall be applied to the actual generating units or systems used by the electricity supplier to meet its retail load for the 12month period being reported on the label.

2. In the case where information regarding emissions associated with NUG contracts is not available from the generator, the electricity supplier may calculate the emissions characteristics for the contract using the generation permit levels of the NUG, as allowed by the NJDEP, and a conservative estimated emission heat rate factor approved by Board staff.

(c) With respect to electricity, where its point of generation cannot be readily known by the supplier (that is, electricity purchased on the spot market or from a wholesale supplier), default values set forth in Appendix F shall be used to determine the environmental information to be disclosed on the label.

(d) In developing disclosure labels, each category of electric generating resources shall be treated as follows:

1. Owned generation. An electricity supplier that owns electric generating units located in the PJM control area shall disclose the fuel mix and emissions associated with all electricity generated from those units, unless the electricity was sold in the wholesale market through a unit or system contract, or contract for specified resources. If, in the previous calendar year, an electricity supplier's owned generation exceeded its retail load, the electricity supplier shall ascribe the average environmental characteristics of its owned electric generating units (minus the electricity sold through unit or system contracts or contracts for specified resources to the wholesale market) to its retail sales. If, in the previous calendar year, the electricity supplier's owned generation was less than its retail load, the electricity supplier shall ascribe the average environmental characteristics of its owned generation (again subtracting the electricity sold through unit or system contracts or contracts for specified resources to the wholesale market) to the portion of its retail load that is equal to the electricity it generated during that period. The remaining retail load shall be ascribed the environmental characteristics of unit contracts, system contracts or the default values set forth in Appendix F, as applicable.

2. Unit contracts. An electricity supplier that purchases electric power through a unit contract shall ascribe the fuel mix and emissions associated with the specified unit or units to all electric power purchased through that contract. With respect to a unit contract for imported power, the electricity supplier may characterize this power with the electric generating unit's emissions and fuel mix information after filing the following with the Board or the Program Administrator: documentation that the unit or units generated the amount of electricity claimed during the specified period; documentation that the electricity was scheduled for transmission into the PJM control area, or in the case of Rockland & Orange, into the NYPP control area; and certification from the generating company that it has not sold the electricity claimed by the electricity supplier to any party other than that electricity supplier. The certification documentation shall be included in the annual certification completed by an independent entity as set forth in N.J.A.C. 14:8-3.9. In the event that the electricity supplier does not file such information, the supplier shall characterize the electricity with the average environmental characteristics of the generating units owned by the company from which the electricity was purchased.

3. Contracts for specified resources. An electricity supplier that purchases electric power through a contract for specified resources shall ascribe the fuel mix and emissions associated with the resources actually used to supply the contract. With respect to imported power, the electricity supplier may characterize this power with the electric generating unit's emissions and fuel mix information after filing the following with the Board or the Program Administrator: documentation that the unit or units generated the amount of electricity claimed during the specified period; documentation that the electricity was scheduled for transmission into the PJM control area, or in the case of Orange & Rockland, into the NYPP control area: and certification from the generating company or wholesaler supplying the electricity supplier that the electricity claimed by the electricity supplier has not been sold to any party other than that electricity supplier. The certification documentation shall be included in the annual certifications completed by an independent entity as set forth in N.J.A.C. 14:8-3.9. In the event that the electricity supplier does not file such information, the supplier shall characterize the electricity with the average environmental characteristics of the generating units owned by the company in the control area from which the electricity was purchased.

4. System contracts. Electricity suppliers that purchase electric power through bilateral system contracts shall characterize this power with the generating company's average fuel mix and emissions (less any electricity sold through unit contracts) if, in the previous calendar year, the generating company's owned generation exceeded its retail load. Such purchases shall be considered to be undifferentiated power obtained from a wholesale supplier and characterized by the default fuel mix and emissions set by in this chapter, if the seller's retail load exceeded its owned generation in the previous calendar year.

5. With respect to a system contract for imported power, an electricity supplier may characterize this power with the generating company's average emissions and fuel mix information after filing the following with the Board or the Program Administrator: documentation that the specified system generated the amount of electricity claimed during the specified period; documentation that the electricity was scheduled for transmission into the PJM control area, or in the case of Orange & Rockland, into the NYPP control area; and certification from the generating company that it has not sold the electricity claimed by the electricity supplier to any party other than that electricity supplier. The certification documentation shall be included in the annual certification completed by an independent entity as set forth in N.J.A.C. 14:8-3.9. In the event that the electricity supplier does not file such information, the supplier shall characterize the electricity with the average environmental characteristics of the generating units located in the control area from which the electricity was purchased.

6. Spot market purchases and wholesale electricity contracts. Electricity suppliers shall ascribe the default fuel mix and emissions to all electricity purchased from the spot market or purchased through wholesale electricity contracts. If a supplier can confirm the environmental characteristics of the energy from an undifferentiated wholesale electricity contract, it may report this data to the Program Administrator.

(e) Except for new products for which such information is not available, suppliers shall base disclosure for a product on a weighted average of the characteristics of the various electric generating units contracted to produce the electricity over the period of a single calendar year. The average emission rate (pounds per mWh) of a generating unit can, for most units, be determined by reference to the most recent data reported to, and made available to the public by, the USEPA and the EIA.

(f) Each electricity supplier shall be permitted to differentiate its electricity supply portfolio into discrete retail products. Such differentiation is subject to the following restrictions:

1. An electricity supplier's demonstration that a new electricity product supplied to New Jersey retail customers during a specific period met the environmental claims made for that product shall be based on owned generation or on one or more bilateral contracts. Any source of supply, where the generating unit or units are not so documented, shall be ascribed the default values for fuel mix or emissions characteristics;

2. The electricity supplier shall demonstrate its sources of electric supply, either from owned resources or through acquisitions in the wholesale market. The supplier shall be required to show that over a course of a given year its sources of supply were sufficient to meet its retail load for each of its products and for any wholesale sales it has made. The supplier shall also be able to demonstrate that no electricity has been double counted; and

3. The weighted average of the fuel mix and emissions disclosed for all products sold by an electricity supplier (both products for which an environmental claim is made and product(s) based on the remainder of the supplier's portfolio) shall correspond to the average fuel mix and emissions of the supplier's wholesale portfolio, minus the supplier's wholesale sales, or to the default fuel mix and emissions.

(g) All electricity suppliers shall be required to disclose in the standard format authorized by the Board the amount of electricity saved as a result of their investment in energy efficiency measures in New Jersey, including an indication that no electricity has been saved if the supplier has not made any such investments. Electricity savings that result from energy efficiency programs subsidized by the State-mandated societal benefits charge authorized under N.J.S.A. 48:3-60 may not be included in the electricity savings disclosed to retail customers. In order to be eligible to claim the savings, electricity suppliers shall document electricity savings resulting from efficiency measures or by retiring NO<sub>X</sub> allowances allocated under the State's NO<sub>x</sub> budget program on the basis of implementation of energy efficiency measures. (See N.J.A.C. 14:8-3.4(a)4 on energy efficiency information.) Electricity suppliers may also claim credit for energy efficiency by purchasing and retiring DER credits or allowances created through energy efficiency measures implemented by another company. Emission credits and allowances shall be translated into electricity savings based on the mWh savings reported in the documentation for the generation of the emission credits for the claim of the allowances.

# 14:8-3.7 Disclosure information updating and reporting requirements

(a) Each electricity supplier (except for suppliers of new products) will be required to update and distribute the environmental information on its label(s) semi-annually. The disclosure shall be based on data reflecting the product sold during the most recent 12-month period. Suppliers relying on historical information for disclosure shall be required to provide updated labels on April 1 and October 1. This information shall be based on four quarters' information, but recognizing that some period is needed for information gathering and processing, a three-month lag will be allowed between the date that disclosure of an updated label is required and the last day of the period on which the label is based. For example, an updated label issued on April 1, 2000, shall be based on data reflecting the generation of power provided from January 1 through December 31, 1999. An updated label issued on October 1, 2000 shall be based on data reflecting the generation of power from July 1, 1999 to June 30, 2000. An updated label issued on April 1, 2001, shall be based on data reflecting the generation of power provided between January 1, 2000, and December 31, 2001.

(b) Suppliers of basic generation service shall provide environmental information to basic generation customers according to the schedule set forth in (a) above and in subchapter Appendix H, incorporated herein by reference.

(c) Each electricity supplier of a new product for which an environmental claim is made shall be required to update its label after a 12-month period for which power was supplied to the customer. However, suppliers of new products shall distribute the label to their customers semi-annually, as set forth in Appendix H, whether making an environmental claim for the product or using the default label. (d) A supplier that does not differentiate the electricity it supplies into distinct products on the basis of environmental characteristics shall disclose the same information on fuel mix, emissions and support of energy efficiency for all the electricity it sells. An electricity supplier that does create distinct products on the basis of environmental characteristics shall follow the rules for product differentiation set forth in N.J.A.C. 14:8-3.6(f) to develop different labels for different products, and shall document that the weighted average of all its products is consistent with the supplier's overall portfolio of electricity used to meet its total retail load.

(e) The electricity supplier shall develop the environmental information for the existing product's disclosure label by determining the fuel mix and emissions associated with the electric generating resources it relied on in the most recent four quarters to meet the retail load resulting from sales of that product. The supplier will base its calculation of this environmental information upon actual information associated with generation from which the fuel use and emissions characteristics are readily known by the supplier and default fuel mix and emission characteristics associated with generation from which fuel use and emissions characteristics are not readily known by the supplier. For existing products, the use of default values shall only be allowed for energy that is purchased from the spot market or wholesale electricity purchases only if and as long as contractual information that can trace the energy to its originating system or unit is not available.

#### 14:8-3.8 Environmental disclosure distribution

(a) Electricity suppliers will be required to disclose environmental information, in the uniform label format approved by the Board, to all prospective retail customers prior to signing them as customers. This does not apply in the case of a customer being returned to basic generation service provided by the local distribution company. Customers returned to basic generation service shall receive the next scheduled semi-annual report, as well as all subsequent reports. In addition, electricity suppliers shall include disclosure labels in: semi-annual mailings to all retail customers; all product-specific direct mail marketing materials or if a supplier offers only one product, in all direct mail marketing materials; all marketing materials that include a solicitation seeking to have the recipient sign up as a retail customer or that include an opportunity to enter into a contract, including those that are accessible to retail customers via computer; and any statement of terms and conditions sent to retail customers following sign-up.

1. Electricity suppliers shall be required to disclose that environmental information is available to the customer if electricity suppliers advertise in print advertisements, such as newspapers published in New Jersey or newspapers that permit the purchase of advertising space for distribution in New Jersey in which a specific product is advertised. For specified products advertised, electricity suppliers shall indicate in all such materials that environmental information

8-12.5

is available upon request, which, at a minimum, includes the environmental information provided in the standard label as set forth in Appendices A, B, or C, and shall provide a toll-free telephone number through which retail customers can access this information, in addition to any mailing address or Internet website address.

2. In other marketing efforts (for example, broadcast or telemarketing) in which a specific product is advertised or offered, electricity suppliers shall inform retail customers that environmental information on the advertised products is available which, at a minimum, includes the environmental information provided in the standard labels set forth in Appendices A, B or C, and shall provide a toll-free telephone number. If the electric power supplier or generation service provider maintains an Internet website, then the Internet address shall be provided.

(b) In April of each year, all New Jersey electric suppliers shall submit to the Board or the Program Administrator an annual report for the preceding calendar year (January through December) in accordance with guidelines established by the Board or the Program Administrator. In its report, each electricity supplier shall, on an annual basis, disclose all of the electricity products it has offered for sale in New Jersey, including the weighted average emissions performance (expressed in lbs/mWh) for NO<sub>X</sub>, SO<sub>2</sub>, and CO<sub>2</sub> and the weighted average fuel mix of all products sold to retail customers in New Jersey. An electricity supplier's annual report shall also include information, including the weighted average emissions performance (expressed in lbs/mWh) for NO<sub>x</sub>, SO<sub>2</sub>, and CO<sub>2</sub> and the weighted average fuel mix of the generating resources owned by all affiliated companies in the Eastern Interconnection. The boundaries of the Eastern Interconnection are established by the North American Electric Reliability Corporation (NERC) and can be viewed on its website at www.NERC.com.

1. An electricity supplier shall also inform all its retail customers, annually, that such a report is available upon request and shall provide a toll-free telephone number through which retail customers can obtain this information. An electricity supplier shall also provide to all its retail customers the Internet site address maintained by the Board or Program Administrator as set forth in (c) below to allow customer Internet access to its annual report.

(c) The Program Administrator shall maintain an Internet site with information relevant to environmental disclosure. The Program Administrator shall see that the disclosure labels of all products supplied in New Jersey by all New Jersey registered electricity suppliers are posted on the site. The Internet site shall include other related information such as each supplier's annual report and whether each company has met its claims, and whether it has been fined or penalized by any State agency in relation to State disclosure requirements.

#### 14:8-3.9 Certification by an independent entity

(a) Prior to distributing disclosure information to customers and annually thereafter, each supplier of an existing product shall obtain a certified verification of the environmental information to be disclosed from a certified public accountant (CPA) that is independent of such electricity supplier. Any electricity supplier of a new electricity product who makes a specific environmental claim on the product's disclosure label, including a claim of support for energy efficiency, shall, following the 12-month or longer period during which the claim is made, demonstrate that the claim was met within the allowable limits, and obtain a certified verification from an independent CPA that the demonstration is complete, accurate and true. Electricity suppliers of new electricity products who rely on the allowed default values for the initial 18-month period are not required to obtain verification or audit of the default emissions and fuel mix information.

(b) The CPA shall certify that the environmental information disclosed on the label has been properly determined, including that the supplier's wholesale portfolio information is based on an accurate calculation of the emissions of owned generation units and of units and/or systems for which the supplier has bilateral contracts and that proper default values have been used for electricity obtained from wholesale electricity purchases and purchases through the spot market.

(c) Both for existing products and for verification that the product environmental claims have been met, the electricity supplier shall be required to file the CPA's certified verification with the Board or Program Administrator. Power purchase contracts do not need to be provided to the Board as supporting documentation, unless specifically requested by the Board or Program Administrator.

#### 14:8-3.10 Verification and penalties

(a) Until a Program Administrator is able to execute its function, the Board will be responsible for periodically auditing compliance with environmental disclosure requirements, including the proper development and distribution of disclosure labels. When the Program Administrator is in place, it shall provide reports of such audits to the Board, the New Jersey Department of Environmental Protection, the Office of the Ratepayer Advocate, and the Division of Consumer Affairs, for their review. The Board shall set up a dispute resolution process through which electricity suppliers can obtain a review of the Program Administrator's calculations and findings.

1. Electricity suppliers that have made prospective claims shall provide to the Board or Program Administrator in their semiannual report a demonstration either that appropriate progress has been made toward meeting the claim or, after the end of the year, that the electricity provided met the environmental claims made. Following the 12-month period for which the claim was made, electricity

# **APPENDIX D**

# (RESERVED)

### **APPENDIX E**

## **Definitions of Fuel Types**

	Coal—Steam Turbine Pumped Storage Hydro Powered by Coal	
	Natural Gas—Steam Turbine	
	Natural Gas—Simple Combustion Turbine	
	Natural Gas—Combined Cycle	
	Combustion Turbine	
	LPG	
	Pumped Storage Hydro Powered by Gas	
	Pondage Hydro	
	Run-of-River Hydro	
Nuclear	Boiling and Pressurized Water Reactors	
	Pumped Storage Hydro Powered by	
	Nuclear	
Oil	Oil—Steam Turbine	
	Oil—Simple Combustion Turbine	
	Oil—Combined Cycle Combustion	
	Turbine	
	Diesel	
	No. 2 Heating Oil	
	Jet Fuel	
	Gasoline	
	Kerosene	
	Pumped Storage Hydro Powered by Oil	
Solar	Photovoltaics	
	Fuel Cells Powered by Photovoltaics	
Wind	Wind Turbines	
Captured Methane	Landfill Gas	
Gas	Sewage Gas	
	Agricultural Waste Digesters	
	Fuel Cells Powered by Methane	
Biomass	Urban Wood Waste	
	Pallet Waste	
	Construction and Demolition	
	Municipal Solid Waste Wood	
	Mill Residue Wood	
	Primary Wood Products Industries	
	Secondary Wood Products Industries	
	Harvested Wood	

	Site Conversion Waste Wood Sivicultural Waste Wood Agricultural Residue Sustainable Yield Wood
Geothermal	Geothermal
Solid Waste	Municipal Solid Waste
Incineration	Tire Waste
Wave/Tidal Action	Wave/Tidal Action

#### **APPENDIX F**

## Benchmark and default values

I. Default values for the "Energy Source" section of the label

Coal	49 percent
Gas	7 percent
Hydroelectric (large)	2 percent
Nuclear	34 percent
Oil	6 percent
Renewable Energy Sources:	
Captured methane gas	0 percent
Fuel Cells	0 percent
Geothermal	0 percent
Hydroelectric (small)	0 percent
Solar	0 percent
Solid waste	2 percent
Wind	0 percent
Wood or other biomass	0 percent
TOTAL	100 percent

II. Benchmarks and defaults for "Air Emissions" section of the label

	Benchmarks (pounds per megawatt-hour)	Defaults (pounds per megawatt-hour)
CO <sub>2</sub>	1,213	1,525
NOx	3.0	4.6
SO <sub>2</sub>	2.5	9.9

# **APPENDIX G**

(RESERVED)

# **APPENDIX H**

# Label Update and Distribution Timing Requirements

# New Product Label (Claim or Default)

Initial prospective label	Date of label update Commencement of marketing	Reporting period on label 12 month period for which power will first be provided in New	Distribution to customer Commencement of marketing and six months after power is first
			provided
		Jersey	provided
First historical label	Three months after the end of the	The same time period used on the	Three months after the end of the
	12-month period	prospective label (above)	12-month period
Future historical labels	Semiannually		

## SUBCHAPTER 4. NET METERING AND INTER-CONNECTION STANDARDS FOR CLASS I RENEWABLE ENERGY SYSTEMS

## 14:8-4.1 Scope

(a) This subchapter sets forth net metering requirements that apply to electric power suppliers, basic generation service providers and electric distribution companies, as defined at N.J.A.C. 14:4-1.2, which have residential or small commercial customers who generate electricity using class I renewable energy.

(b) This subchapter also sets forth requirements for the interconnection of customer-generator facilities, including those that generate class I renewable energy, with electric distribution systems, as those terms are defined at N.J.A.C. 14:4-1.2 and 14:8-1.2.

# 14:8-4.2 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions that apply to this subchapter can be found at N.J.A.C. 14:3-1.1 and 14:8-1.2.

"Annualized period" means a period of 12 consecutive monthly billing periods. A customer-generator's first annualized period begins on the first day of any single monthly billing period, at the customer's choice.

"Applicant" means a person who has filed an application to interconnect a customer-generator facility to an electric distribution system.

"Area network" means a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit, which is generally used in large metropolitan areas that are densely populated, in order to provide high reliability of service. This term has the same meaning as the term "secondary grid network" as defined in IEEE standard 1547 Section 4.1.4 (published July 2003), which is incorporated herein by reference as amended and supplemented. IEEE standard 1547 can be obtained through the IEEE website at <u>www.ieee.org</u>.

"Avoided cost of wholesale power" means the average locational marginal price of energy in the applicable utility's transmission zone. This cost can be obtained through the website maintained by PJM Interconnection at <u>www.pjm.</u> com.

"Customer-generator" means a residential or small commercial customer that generates electricity, on the customer's side of the meter.

"Customer-generator facility" means the equipment used by a customer-generator to generate, manage, and/or monitor electricity. A customer-generator facility typically includes an electric generator and/or an equipment package.

"Equipment package" means a group of components connecting an electric generator with an electric distribution system, and includes all interface equipment, including switchgear, inverters, or other interface devices. An equipment package may include an integrated generator or electric source.

"Fault current" means electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase. A fault current is several times larger in magnitude than the current that normally flows through a circuit.

"Good utility practice" has the same meaning as assigned to this term in the Amended and Restated Operating Agreement of PJM Interconnection (October 2003), which is incorporated herein by reference as amended and supplemented. The Operating Agreement can be obtained on the PJM Interconnection website at <u>www.pjm.com</u>. As of October 4, 2004, the Operating Agreement defines this term as "a practice, method, policy, or action engaged in and/or accepted by a significant portion of the electric industry in a region, which a reasonable utility official would expect, in light of the facts reasonably discernable at the time, to accomplish the desired result reliably, safely and expeditiously."

"IEEE standards" means the standards published by the Institute of Electrical and Electronic Engineers, available at www.ieee.org.

"Interconnection agreement" means an agreement between a customer-generator and an EDC, which governs the connection of the customer-generator facility to the electric distribution system, as well as the ongoing operation of the customergenerator facility after it is connected to the system. An interconnection agreement shall follow the standard form agreement developed by the Board and posted on the Board's website at <u>www.bpu.state.nj.us</u>.

"Point of common coupling" has the same meaning as assigned to this term in IEEE Standard 1547 Section 3.0 (published July 2003), which is incorporated herein by reference, as amended and supplemented. IEEE standard 1547 can be obtained through the IEEE website at <u>www.ieee.org</u>. As of October 4, 2004, IEEE Standard 1547 Section 3.0 defined this term as "the point in the interconnection of a customer-generator facility with an electric distribution system at which the harmonic limits are applied."

"Small commercial customer" means a non-residential electrical customer with less than 10 MW of peak demand, as determined by the most recently measured annual peak demand on the customer's demand meter, or by the peak load contribution for the customer, as submitted by the EDC to the PJM RTO for load planning purposes. "Spot network" has the same meaning as assigned to the term under IEEE Standard 1547 Section 4.1.4, (published July 2003), which is incorporated herein by reference, as amended and supplemented. IEEE standard 1547 can be obtained through the IEEE website at <u>www.ieee.org</u>. As of October 4, 2004, IEEE Standard 1547 defined "spot network" as "a type of electric distribution system that uses two or more inter-tied transformers to supply an electrical network circuit." A spot network is generally used to supply power to a single customer or a small group of customers.

Petition for Rulemaking.

See: 40 N.J.R. 5878(a).

Amended by R.2009 d.68, effective March 2, 2009.

See: 40 N.J.R. 5531(a), 41 N.J.R. 1094(a).

In definition "Annualized period", substituted "any single" for "the first full" and ", at the customer's choice" for "after which the customer-generator's facility is interconnected and is generating electricity"; and in definition "Customer-generator facility", inserted "/or".

#### 14:8-4.3 Net metering general provisions

(a) All electric distribution companies (EDCs) and supplier/providers, as defined at N.J.A.C. 14:4-1.2 and 14:8-1.2, respectively, shall offer net metering to their residential and small commercial customers, as defined at N.J.A.C. 14:8-4.2, that generate electricity, on the customer's side of the meter, using class I renewable energy sources, provided that the generating capacity of the customer-generator's facility does not exceed two megawatts, and does not exceed the amount of electricity supplied by the electric power supplier or basic generation service provider to the customer over an annualized period.

(b) The EDC shall develop a tariff providing for net metering. Each supplier/provider and EDC shall make net metering available to eligible customer-generators on a first-come, first-served basis.

(c) If, in a given monthly billing period, a customergenerator supplies more electricity to the electric distribution system than the EDC or supplier/provider delivers to the customer-generator, the EDC and supplier/provider shall credit the customer-generator for the excess. To do this, the EDC or supplier/provider shall reduce the customer-generator's bill for the next monthly billing period to compensate for the excess electricity from the customer-generator in the previous billing period.

(d) The EDC and supplier/provider shall carry over credit earned under (c) above from monthly billing period to monthly billing period, and the credit shall accumulate until the end of the annualized period, as defined at N.J.A.C. 14:8-4.2.

(e) At the end of each annualized period, the supplier/ provider shall compensate the customer-generator for any excess kilowatt hours generated, at the electric power supplier's or basic generation service provider's avoided cost of wholesale power, as defined at N.J.A.C. 14:8-4.2. (f) The EDC or supplier/provider shall offer each customer-generator one opportunity to select a monthly billing period as the start of the customer-generator's annualized period. This shall apply to all customer-generators, whether they began net metering prior to March 2, 2009, or after that date.

(g) A customer-generator may submit its annualized period selection to the EDC or supplier/provider at any time. However, an EDC or supplier/provider is not required to accept a customer-generator selection of an annualized period that begins before the first full day of the first monthly billing period after the submittal of the selection.

(h) If a customer-generator begins net metering after March 2, 2009, and does not submit an annualized period selection, the EDC or supplier/provider shall assign the customer-generator a default annualized period until such time as the customer-generator may choose to submit an annualized period selection. The default annualized period shall begin on the first full day of the first monthly billing period after the customer-generator's facility is interconnected and generating electricity.

(i) If any customer-generator has been net metering for one monthly billing period or more before it submits its annualized period selection, the following shall apply:

1. If the customer-generator has been net metering for more than 12 monthly billing periods, the time between the selection submittal and the end of the customer-generator's most recently ended annualized period shall be treated as one annualized period; and

2. If the customer-generator has been net metering for fewer than 12 monthly billing periods, the time between the selection submittal and the first day of the first full monthly billing period after the customer-generator's facility is interconnected and generating electricity shall be treated as one annualized period.

(j) A customer-generator shall retain its chosen annualized period permanently unless either of the following occurs:

1. The customer-generator switches electric suppliers. In such a case, the electric power supplier or basic generation service provider with whom service is terminating shall treat the end of the service period as if it were the end of the annualized period; or

2. The EDC or supplier/provider, at its discretion, chooses to accept a customer-generator request for a new annualized period.

(k) Each supplier/provider or EDC shall submit an annual net metering report to the Board. The report shall be submitted by June 30th of each year, and shall include the following information for the one-year period ending May 31st of that year: 1. The total number of customer-generator facilities;

2. The total estimated rated generating capacity of its net metering customer-generators;

3. The total estimated net kilowatt-hours received from customer-generators; and

4. The total estimated amount of energy produced by the customer-generators, which shall be calculated in accordance with customary industry standards.

(1) A customer-generator that is eligible for net metering owns the renewable attributes of the electricity it generates unless there is a contract with an express provision that assigns ownership of the renewable attributes.

(m) A customer-generator that owns renewable attributes may trade or sell the attributes to another person, or may apply to the Board in accordance with N.J.A.C. 14:8-2.9 for issuance of Solar Renewable Energy Certificates, or SRECs, based on solar electric generation. Once the PJM's Generation Attribute Tracking System (GATS), or another tracking system approved by the Board, is operational, the owner of renewable attributes may apply for issuance of class I renewable energy RECs. If RECs or SRECs are issued, the customer-generator or other recipient of the RECs or SRECs may trade or sell the REC or SREC, or may trade or sell the REC or SREC through an aggregator, or through a trading program authorized by the Board.

(n) A supplier/provider or EDC shall provide net metering at non-discriminatory rates that are identical, with respect to rate structure, retail rate components, and any monthly charges, to the rates that a customer-generator would be charged if not a customer-generator, except that a supplier/ provider or EDC may use a special load profile for the customer-generator, which incorporates the customer-generator's real time generation, provided the special load profile is approved by the Board.

(o) A supplier/provider or EDC shall not charge a customer-generator any fee or charge, or require additional equipment, insurance or any other requirement, unless the fee, charge, or other requirement is specifically authorized under this subchapter, or the fee would apply to other customers that are not customer-generators.

(p) Nothing in this subchapter shall abrogate any person's obligation to comply with all applicable Federal or State laws, rules or regulations.

Amended by R.2009 d.68, effective March 2, 2009.

See: 40 N.J.R. 5531(a), 41 N.J.R. 1094(a).

Added (f) through the introductory paragraph of (j); recodified former (f) as (j)1; in (j)1, substituted "The" for "If a" at the beginning, inserted ". In such a case" and substituted "; or" for a period at the end; added (j)2; and recodified former (g) through (l) as (k) through (p).

#### 14:8-4.4 Meters and metering

(a) A customer-generator facility used for net metering shall be equipped with metering equipment that can measure

the flow of electricity in both directions at the same rate. This is typically accomplished through use of a single bi-directional meter.

(b) A customer-generator may choose to use an existing electric revenue meter if the following criteria are met:

1. The meter is capable of measuring the flow of electricity both into and out of the customer-generator's facility at the same rate; and

2. The meter is accurate to within plus or minus five percent when measuring electricity flowing from the customer-generator facility to the electric distribution system.

(c) If the customer-generator's existing electric revenue meter does not meet the requirements in (b) above, the EDC shall install a new revenue meter for the customer-generator, at the company's expense. Any subsequent revenue meter change necessitated by the customer-generator, whether because of a decision to stop net metering or for any other reason, shall be paid for by the customer-generator.

(d) The electric distribution company shall not require more than one meter per customer-generator. However, an additional meter may be installed under either of the following circumstances:

1. The electric distribution company may install an additional meter at its own expense if the customer-generator consents; or

2. The customer-generator may request that the EDC install a meter, in addition to the revenue meter addressed in (c) above, at the customer-generator's expense. In such a case, the EDC shall charge the customer-generator no more than the actual cost of the meter and its installation.

#### 14:8-4.5 General interconnection provisions

(a) Each EDC shall provide the following three review procedures for applications for interconnection of customergenerator facilities:

1. Level 1: An EDC shall use this review procedure for all applications to connect inverter-based customer-generator facilities, which have a power rating of 10 kW or less, and which meet the certification requirements at N.J.A.C. 14:8-4.6. Level 1 interconnection review procedures are set forth at N.J.A.C. 14:8-4.7;

2. Level 2: An EDC shall use this review procedure for applications to connect customer-generator facilities with a power rating of two MW or less, which meet the certification requirements at N.J.A.C. 14:8-4.6. Level 2 interconnection review procedures are set forth at N.J.A.C. 14:8-4.8; and

3. Level 3: An EDC shall use this review procedure for applications to connect customer-generator facilities with a power rating of two MW or less, which do not qualify for

either the level 1 or level 2 interconnection review procedures. Level 3 interconnection review procedures are set forth at N.J.A.C. 14:8-4.9.

(b) Each EDC shall designate an employee or office from which an applicant can obtain basic application forms and information through an informal process. On request, this employee or office shall provide all relevant forms, documents, and technical requirements for submittal of a complete application for interconnection review under this section, as well as specific information necessary to contact the EDC representatives assigned to review the application.

(c) Upon request, the EDC shall meet with an applicant who qualifies for level 2 or level 3 interconnection review, to assist them in preparing the application.

(d) An application for interconnection review shall be submitted on a standard form, available from the EDC and posted on the Board's website at <u>www.bpu.state.nj.us</u>. The application form will require the following types of information:

1. Basic information regarding the applicant and the electricity supplier(s) involved;

2. Information regarding the type and specifications of the customer-generator facility;

3. Information regarding the contractor who will install the customer-generator facility;

4. Certifications and agreements regarding utility access to the customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, receipt of basic information; and

5. Other similar information as needed to determine the compliance of a particular applicant with this chapter.

(e) An EDC shall not be responsible for the cost of determining the rating of equipment owned by a customergenerator, or of equipment owned by other local customers.

(f) The provisions of this subchapter that apply to interconnection are primarily intended for customer-generator facilities that are eligible for net metering, that is, renewable generation facilities with a capacity for no greater than two megawatts, which generate electricity for retail transactions. However, these provisions may be used for review of other interconnections at the discretion of the EDC.

(g) If the interconnection of a customer-generator facility is subject to interconnection requirements of FERC or PJM, the provisions of this subchapter that apply to interconnection apply to that facility only to the extent that they do not conflict with the interconnection requirements of FERC or PJM.

(h) If an applicant for interconnection disagrees with an EDC's determination of fact or need regarding matters covered in this subchapter, or if any person has a complaint

regarding matters covered in this subchapter, the applicant or other person may file an informal complaint with the Board under N.J.A.C. 14:1-5.13, or may file a petition with the Board under N.J.A.C. 14:1-5.

#### 14:8-4.6 Certification of customer-generator facilities

(a) In order to qualify for the level 1 and the level 2 interconnection review procedures described at N.J.A.C. 14:8-4.7 and 4.8, a customer-generator facility must be certified as complying with the following standards, as applicable:

1. IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems (published July 2003), which is incorporated herein by reference, as amended or supplemented. IEEE Standard 1547 can be obtained through the IEEE website at <u>www.ieee.org</u>; and

2. UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems (January 2001), which is incorporated herein by reference, as amended or supplemented. UL 1741 can be obtained through the Underwriters Laboratories website at <u>www.ul.com</u>.

(b) An equipment package shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing and certification laboratory, and has been tested and listed by the laboratory for continuous interactive operation with an electric distribution system in compliance with the applicable codes and standards listed in (a) above.

(c) If the equipment package has been tested and listed in accordance with this section as an integrated package, which includes a generator or other electric source, the equipment package shall be deemed certified, and the EDC shall not require further design review, testing or additional equipment.

(d) If the equipment package includes only the interface components (switchgear, inverters, or other interface devices), an interconnection applicant shall show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and consistent with the testing and listing specified for the package. If the generator or electric source being utilized with the equipment package is consistent with the testing and listing performed by the nationally recognized testing and certification laboratory, the equipment package shall be deemed certified, and the EDC shall not require further design review, testing or additional equipment.

(e) A certified equipment package does not include equipment provided by the EDC.

#### 14:8-4.7 Level 1 interconnection review

(a) Each EDC shall adopt a level 1 interconnection review procedure. The EDC shall use the level 1 review procedure only for an application to interconnect a customer-generator facility that meets all of the following criteria: 1. The facility is inverter-based;

2. The facility has a capacity of 10 kW or less; and

3. The facility has been certified in accordance with N.J.A.C. 14:8-4.6.

(b) For a customer-generator facility described at (a) above, the EDC shall approve interconnection under the level 1 interconnection review procedure if all of the applicable requirements at (c) through (g) below are met. An EDC shall not impose additional requirements not specifically authorized under this section.

(c) The aggregate generation capacity on the distribution circuit to which the customer-generator facility will interconnect, including the capacity of the customer-generator facility, shall not contribute more than 10 percent to the distribution circuit's maximum fault current at the point on the high voltage (primary) level that is nearest the proposed point of common coupling.

(d) A customer-generator facility's point of common coupling shall not be on a transmission line, a spot network, or an area network.

(e) If a customer-generator facility is to be connected to a radial distribution circuit, the aggregate generation capacity connected to the circuit, including that of the customer-generator facility, shall not exceed 10 percent (15 percent for solar electric generation) of the circuit's total annual peak load, as most recently measured at the substation.

(f) If a customer-generator facility is to be connected to a single-phase shared secondary, the aggregate generation capacity connected to the shared secondary, including the customer-generator facility, shall not exceed 20 kilovolt-amps (kVA).

(g) If a single-phase customer-generator facility is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the customer-generator facility shall not create an imbalance between the two sides of the 240 volt service of more than 20 percent of nameplate rating of the service transformer.

(h) An applicant shall submit an application for level 1 interconnection review on a standard form, available from the EDC and posted on the Board's website at <u>www.bpu.state.</u> <u>nj.us</u>. See N.J.A.C. 14:8-4.5(d). An applicant may choose to simultaneously submit an EDC's standard form interconnection agreement executed by the applicant.

(i) Within three business days after receiving an application for level 1 interconnection review, the EDC shall provide written or e-mail notice to the applicant that it received the application and whether the application is complete. If the application is incomplete, the written notice shall include a list of all of the information needed to complete the application. (j) Within 10 business days after the EDC notifies the applicant that the application is complete under (i) above, the EDC shall notify the applicant that:

1. The customer-generator facility meets all of the criteria at (c) through (g) above that apply to the facility, and the interconnection will be finally approved upon completion of the process set forth at (k) through (o) below; or

2. The customer-generator facility has failed to meet one or more of the applicable criteria at (c) through (g) above, and the interconnection application is denied.

(k) If a customer-generator facility meets all of the applicable criteria at (c) through (g) above, the EDC shall, within three business days after sending the notice of approval under (j)1 above, do the following:

1. Notify the applicant if an EDC inspection of the customer-generator facility for compliance with this subchapter is required prior to starting operation of the facility; and

2. Execute and send to the applicant a level 1 interconnection agreement, unless:

i. The EDC does not require an interconnection agreement for customer-generator facilities that qualify for level 1 interconnection review; or

ii. The applicant has already submitted such an agreement with its application for interconnection, in accordance with (h) above.

(1) An applicant that receives an interconnection agreement under (k) above shall execute the agreement and return it to the EDC at least five business days prior to starting operation of the customer-generator facility (unless the EDC does not so require). The applicant shall indicate the anticipated start date for operation of the customer-generator facility. If the EDC requires an inspection of the customergenerator facility, the applicant shall not begin operating the facility until completion of the inspection.

(m) Upon receipt of the executed interconnection agreement from the customer-generator, and satisfactory completion of an inspection if required, the EDC shall approve the interconnection, conditioned on approval by the electrical code officials with jurisdiction over the interconnection.

(n) If an EDC does not notify a level 1 applicant in writing or by e-mail whether the interconnection is approved or denied within 20 business days after the receipt of an application, the interconnection shall be deemed approved. The 20 days shall begin on the date that the EDC sends the written or e-mail notice or application receipt required under (i) above.

(*o*) A customer-generator shall notify the EDC of the anticipated start date for operation of the customer-generator facility at least five days prior to starting operation, either through the submittal of the interconnection agreement or in a separate notice. (p) If an application for level 1 interconnection review is denied because it does not meet one or more of the applicable requirements in this section, an applicant may resubmit the application under the level 2 or level 3 interconnection review procedure, as appropriate.

# 14:8-4.8 Level 2 interconnection review

(a) Each EDC shall adopt a level 2 interconnection review procedure. The EDC shall use the level 2 interconnection review procedure for an application to interconnect a customergenerator facility that meets both of the following criteria:

1. The facility has a capacity of two megawatts or less; and

2. The facility has been certified in accordance with N.J.A.C. 14:8-4.6.

(b) For a customer-generator facility described at (a) above, the EDC shall approve interconnection under the level 2 interconnection review procedure if all of the applicable requirements at (c) through (l) below are met. An EDC shall not impose additional requirements not specifically authorized under this section.

(c) The aggregate generation capacity on the distribution circuit to which the customer-generator facility will interconnect, including the capacity of the customer-generator facility, shall not cause any distribution protective equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or customer equipment on the electric distribution system, to exceed 90 percent of the short circuit interrupting capability of the equipment. In addition, a customer-generator facility shall not be connected to a circuit that already exceeds 90 percent of the short circuit interrupting capability, prior to interconnection of the facility.

(d) If there are posted transient stability limits to generating units located in the general electrical vicinity of the proposed point of common coupling (for example, within three or four transmission voltage level busses), the aggregate generation capacity (including the customer-generator facility) connected to the distribution low voltage side of the substation transformer feeding the distribution circuit containing the point of common coupling shall not exceed 10 MW.

(e) The aggregate generation capacity connected to the distribution circuit, including the customer-generator facility, shall not contribute more than 10 percent to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

(f) If a customer-generator facility is to be connected to a radial distribution circuit, the aggregate generation capacity connected to the electric distribution system by non-EDC sources, including the customer-generator facility, shall not exceed 10 percent (or 15 percent for solar electric generation) of the total circuit annual peak load. For the purposes of this

subsection, annual peak load shall be based on measurements taken over the 12 months prior to the submittal of the application, measured at the substation nearest to the customergenerator facility.

(g) If a customer-generator facility is to be connected to three-phase, three wire primary EDC distribution lines, a three-phase or single-phase generator shall be connected phase-to-phase.

(h) If a customer-generator facility is to be connected to three-phase, four wire primary EDC distribution lines, a three-phase or single phase generator shall be connected lineto-neutral and shall be effectively grounded.

(i) If a customer-generator facility is to be connected to a single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the customer-generator facility, shall not exceed 20 kilovolt-amps (kVA).

(j) If a customer-generator facility is single-phase and is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the customer-generator facility shall not create an imbalance between the two sides of the 240 volt service, which is greater than 20 percent of the nameplate rating of the service transformer.

(k) A customer-generator facility's point of common coupling shall not be on a transmission line.

(1) If a customer-generator facility's proposed point of common coupling is on a spot or area network, the interconnection shall meet all of the following requirements that apply, in addition to the requirements in (c) through (k) above:

1. For a customer-generator facility that will be connected to a spot network circuit, the aggregate generation capacity connected to that spot network from customergenerator facilities, including the customer-generator facility, shall not exceed five percent of the spot network's maximum load;

2. For a customer-generator facility that utilizes inverter based protective functions, which will be connected to an area network, the customer-generator facility, combined with other exporting customer-generator facilities on the load side of network protective devices, shall not exceed 10 percent of the minimum annual load on the network, or 500 kW, whichever is less. For the purposes of this paragraph, the percent of minimum load for solar electric generation customer-generator facility shall be calculated based on the minimum load occurring during an off-peak daylight period; and/or

3. For a customer-generator facility that will be connected to a spot or an area network that does not utilize inverter based protective functions, or for an inverter based customer-generator facility that does not meet the requirements of (l)1 or 2 above, the customer-generator facility

shall utilize reverse power relays or other protection devices that ensure no export of power from the customergenerator facility, including inadvertent export (under fault conditions) that could adversely affect protective devices on the network.

(m) An applicant shall submit an application for level 2 interconnection review on a standard form, available from the EDC and posted on the Board's website at <u>www.bpu.state.</u> <u>nj.us</u>. See N.J.A.C. 14:4-9.5(d). An applicant may choose to simultaneously submit an EDC's standard form interconnection agreement executed by the applicant.

(n) Within three business days after receiving an application for level 2 interconnection review, the EDC shall provide written or e-mail notice to the applicant that it received the application and whether the application is complete. If the application is incomplete, the written notice shall include a list of all of the information needed to complete the application.

(o) Within 15 business days after the EDC notifies the applicant that the application is complete under (n) above, the EDC shall perform an initial review of the proposed interconnection to determine whether the interconnection meets the applicable requirements at (c) through (l) above. During this initial review, the EDC may, at its own expense, conduct any studies or tests it deems necessary to evaluate the proposed interconnection. The initial review shall result in one of the following determinations:

1. The customer-generator facility meets the applicable requirements in (c) through (l) above. In this case, the EDC shall notify the applicant that the interconnection will be finally approved upon completion of the process set forth at (p) through (r) below. Within three business days after this notice, the EDC shall provide the applicant with an executable interconnection agreement;

2. The customer-generator facility has failed to meet one or more of the applicable requirements at (c) through (*l*) above, but the EDC has nevertheless determined that the customer-generator facility can be interconnected consistent with safety, reliability, and power quality. In this case, the EDC shall notify the applicant that the interconnection will be finally approved upon completion of the process set forth at (p) through (r) below. Within five business days after this notice, the EDC shall provide the applicant with an executable interconnection agreement;

3. The customer-generator facility has failed to meet one or more of the applicable requirements at (c) through (l) above, but the initial review indicates that additional review may enable the EDC to determine that the customergenerator facility can be interconnected consistent with safety, reliability, and power quality. In such a case, the EDC shall offer to perform additional review to determine whether minor modifications to the electric distribution system (for example, changing meters, fuses, or relay settings) would enable the interconnection to be made consistent with safety, reliability and power quality. The EDC shall provide to the applicant a nonbinding, good faith estimate of the costs of such additional review, and/or such minor modifications. The EDC shall undertake the additional review or modifications only after the applicant consents to pay for the review and/or modifications; or

4. The customer-generator facility has failed to meet one or more of the applicable requirements at (c) through (l) above, and the initial review indicates that additional review would not enable the EDC to determine that the customer-generator facility could be interconnected consistent with safety, reliability, and power quality. In such a case, the EDC shall notify the applicant that the interconnection application has been denied, and shall provide an explanation of the reason(s) for the denial, including a list of additional information and/or modifications to the customer-generator's facility, which would be required in order to obtain an approval under level 2 interconnection procedures.

(p) An applicant that receives an interconnection agreement under (o)1 or 2 above shall:

1. Execute the agreement and return it to the EDC at least 10 business days prior to starting operation of the customer-generator facility (unless the EDC does not so require); and

2. Indicate to the EDC the anticipated start date for operation of the customer-generator facility.

(q) The EDC may require an EDC inspection of a customer-generator facility for compliance with this subchapter prior to operation, and may require and arrange for witness of commissioning tests as set forth in IEEE standard 1547 (published July 2003). The EDC shall schedule any inspections or tests under this section promptly and within a reasonable time after submittal of the application. The applicant shall not begin operating the customer-generator facility until after the inspection and testing is completed.

(r) For an applicant that receives an interconnection agreement under (p)1 or 2 above, approval of interconnected operation of the customer-generator facility shall be conditioned on all of the following occurring:

1. The interconnection has been approved by the electrical code official with jurisdiction over the interconnection;

2. Any EDC inspection and/or witnessing of commissioning tests arranged under (q) above are successfully completed; and

3. The planned start date provided by the applicant under (q) above has passed.

(s) If an application for level 2 interconnection review fails to meet the requirements as described at (o)3 or 4 above, or is denied because it does not meet one or more of the requirements in this section, the applicant may resubmit the

application under the level 3 interconnection review procedure.

## 14:8-4.9 Level 3 interconnection review

(a) Each EDC shall adopt a level 3 interconnection review procedure. The EDC shall use the level 3 review procedure for an application to interconnect a customer-generator facility that has a capacity less than two megawatts and does not qualify for the level 1 or level 2 interconnection review procedures set forth at N.J.A.C. 14:8-4.7 and 4.8.

(b) The EDC shall conduct an initial review of the application and shall offer the applicant an opportunity to meet with EDC staff to discuss the application. At the meeting, the EDC shall provide pertinent information to the applicant, such as the available fault current at the proposed interconnection location, the existing peak loading on the lines in the general vicinity of the customer-generator facility, and the configuration of the distribution lines at the proposed point of common coupling.

(c) The EDC shall provide an impact study agreement to the applicant, which shall include a good faith cost estimate for an impact study to be performed by the EDC. An impact study is an engineering analysis of the probable impact of a customer-generator facility on the safety and reliability of the EDC's electric distribution system. An impact study shall be conducted in accordance with good utility practice, as defined at N.J.A.C. 14:8-4.2, and shall:

1. Detail the impacts to the electric distribution system that would result if the customer-generator facility were interconnected without modifications to either the customer-generator facility or to the electric distribution system;

2. Identify any modifications to the EDC's electric distribution system that would be necessary to accommodate the proposed interconnection; and

3. Focus on power flows and utility protective devices, including control requirements.

(d) If the proposed interconnection may affect electric transmission or delivery systems, other than that controlled by the EDC, operators of these other systems may require additional studies to determine the potential impact of the interconnection on these systems. If such additional studies are required, the EDC shall coordinate the studies, but shall not be responsible for their timing. The applicant shall be responsible for the costs of any such additional studies required by another affected system. Such studies shall be conducted only after the applicant has provided written authorization.

(e) After the applicant has executed the impact study agreement and has paid the EDC the amount of the good faith estimate required under (c) above, the EDC shall conduct the impact study and shall notify the applicant of the results as follows:

1. If the impact study indicates that only insubstantial modifications to the EDC's electric distribution system are necessary to accommodate the proposed interconnection, the EDC shall send the applicant an interconnection agreement that details the scope of the necessary modifications and an estimate of their cost; or

2. If the impact study indicates that substantial modifications to the EDC's electric distribution system are necessary to accommodate the proposed interconnection, the EDC shall provide an estimate of the cost of the modifications, which shall be accurate to within plus or minus 25 percent. In addition, the EDC shall offer to conduct a facilities study at the applicant's expense, which will identify the types and cost of equipment needed to safely interconnect the applicant's customer-generator facility.

(f) If an applicant requests a facilities study under (e)2 above, the EDC shall provide a facilities study agreement. The facilities study agreement shall describe the work to be undertaken in the facilities study and shall include a good faith estimate of the cost to the applicant for completion of the study. Upon the execution by the applicant of the facilities study agreement, the EDC shall conduct a facilities study, which shall identify the facilities necessary to safely interconnect the customer-generator facility with the EDC's electric distribution system, the cost of those facilities, and the time required to build and install those facilities.

(g) Upon completion of a facilities study, the EDC shall provide the applicant with the results of the study and an executable interconnection agreement. The agreement shall list the conditions and facilities necessary for the customergenerator facility to safely interconnect with the EDC's electric distribution system, the cost of those facilities, and the estimated time required to build and install those facilities.

(h) If the applicant wishes to interconnect, it shall execute the interconnection agreement, provide a deposit of not more than 50 percent of the cost of the facilities identified in the facilities study, complete installation of the customer-generator facility, and agree to pay the EDC the amount required for the facilities needed to interconnect as identified in the facilities study.

(i) Within 15 business days after notice from the applicant that the customer-generator facility has been installed, the EDC shall inspect the customer-generator facility and shall arrange to witness any commissioning tests required under IEEE Standard 1547. The EDC and the applicant shall select a date by mutual agreement for the EDC to witness commissioning tests.

(j) Provided that the customer-generator facility passes any required commissioning tests satisfactorily, the EDC shall notify the applicant in writing, within three business days after the tests, of one of the following:

1. The interconnection is approved and the customergenerator facility may begin operation; or 2. The facilities study identified necessary construction that has not been completed, the date upon which the construction will be completed and the date when the customer-generator facility may begin operation.

(k) If the commissioning tests are not satisfactory, the customer-generator shall repair or replace the unsatisfactory equipment and reschedule a commissioning test pursuant to (i) above.

(*l*) Each EDC shall include in any tariff or published procedures for level 3 interconnection review each element of an impact study, including a description of the review the EDC will undertake for each element. An impact study shall include the following elements, as applicable:

1. A load flow study;

2. A short-circuit study;

3. A circuit protection and coordination study;

4. The impact on the operation of the electric distribution system;

5. A stability study (and the conditions that would justify including this element in the impact study);

6. A voltage collapse study (and the conditions that would justify including this element in the impact study); and

7. Additional elements, if approved in writing by Board staff prior to the impact study.

#### 14:8-4.10 Interconnection fees

(a) An EDC or supplier/provider shall not charge an application or other fee to an applicant that requests level 1 interconnection review. However, if an application for level 1 interconnection review is denied because it does not meet the requirements for level 1 interconnection review, and the applicant resubmits the application under another review procedure in accordance with N.J.A.C. 14:8-4.7(p), the EDC may impose a fee for the resubmitted application, consistent with this section.

(b) For a level 2 interconnection review, the EDC may charge fees of up to \$50.00 plus \$1.00 per kilowatt of the customer-generator facility's capacity, plus the cost of any minor modifications to the electric distribution system or additional review, if required under N.J.A.C. 14:8-4.8(o)3 or 4. Costs for such minor modifications or additional review shall be based on EDC estimates and shall be subject to case-by-case review by the Board or its designee. Costs for engineering work done as part of any additional review shall not exceed \$100.00 per hour.

(c) For a level 3 interconnection review, the EDC may charge fees of up to \$100.00 plus \$2.00 per kilowatt of the customer-generator facility's capacity, as well as charges for actual time spent on any impact and/or facilities studies

required under N.J.A.C. 14:8-4.9. Costs for engineering work done as part of an impact study or facilities study shall not exceed \$100.00 per hour. If the EDC must install facilities in order to accommodate the interconnection of the customergenerator facility, the cost of such facilities shall be the responsibility of the applicant.

# 14:8-4.11 Requirements after approval of an interconnection

(a) An EDC shall not require an applicant whose facility meets the criteria for interconnection approval under the level 1 or level 2 interconnection review procedure required pursuant to N.J.A.C. 14:8-4.7 and 4.8 to install additional controls or external disconnect switches not included in the equipment package, to perform or pay for additional tests, or to purchase additional liability insurance, except if agreed to by the applicant.

(b) An EDC shall not charge any fee or other charge for connecting to the EDC's equipment or for operation of a customer-generator facility for the purposes of net metering, except for the fees provided for under this subchapter.

(c) Once a net metering interconnection has been approved under this subchapter, the EDC shall not require a customergenerator to test or perform maintenance on its facility except for the following:

1. An annual test in which the customer-generator's facility is disconnected from the electric distribution company's equipment to ensure that the inverter stops delivering power to the grid;

2. Any manufacturer-recommended testing or maintenance; and

3. Any post-installation testing necessary to ensure compliance with IEEE 1547 or to ensure safety.

(d) When a customer-generator facility approved through a level 2 or level 3 review undergoes maintenance or testing in accordance with the requirements of this subchapter, the customer-generator shall retain written records documenting the maintenance and the results of testing. No recordkeeping is required for maintenance or testing performed on a customer-generator facility approved through a level 1 review.

(e) An EDC shall have the right to inspect a customergenerator's facility after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the customer-generator. If the EDC discovers that the customergenerator's facility is not in compliance with the requirements of this subchapter, and the noncompliance adversely affects the safety or reliability of the electric distribution system, the EDC may require the customer-generator to disconnect the customer-generator facility until compliance is achieved.

# SUBCHAPTER 5. APPLIANCE EFFICIENCY, CERTIFICATION, AND TESTING STANDARDS

# 14:8-5.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise. In addition, definitions that apply to this subchapter can be found at N.J.A.C. 14:4-1.2, and at N.J.A.C. 14:3-1.1.

"Air-cooled air conditioner" means an air conditioner for commercial application that is rated at or above 240,000 Btu per hour and below 760,000 Btu per hour in cooling capacity that uses an air-cooled condenser.

"Air-cooled central air conditioning heat pump" means a type of "air-cooled very large commercial package air conditioning and heating equipment," as that term is defined at N.J.S.A. 48:3-99.

"Btu" means British thermal unit, a standard unit of energy. One Btu is equal to the amount of heat required to raise the temperature of one pound of liquid water by one degree Fahrenheit at its maximum density, which occurs at a temperature of 39.1 degrees Fahrenheit.

"Clothes washer" means an appliance designed to clean clothing, utilizing a water solution of soap or detergent, and mechanical agitation or other movement.

"Coefficient of performance" means, in relation to an aircooled central air conditioning heat pump operating in the heating mode, the ratio of heating capacity in watts to the power input in watts, measured at standard rating conditions.

"Commercial clothes washer" means a soft mount frontloading or soft mount top-loading clothes washer that meets all of the following criteria:

1. The washer is designed for use by the occupants of more than one household, including:

i. Common areas in multi-family housing;

ii. Coin laundries; or

iii. Other commercial applications;

2. The washer does not require mechanical fastening to a floor for proper operating performance under typical commercial clothes washer conditions of use; and

3. The clothes container compartment is no greater than:

i. 3.5 cubic feet for a horizontal-axis clothes washer; and

ii. 4.0 cubic feet for a vertical-axis clothes washer.

"Commercial refrigerator, freezer, and refrigerator-freezer equipment" means refrigeration equipment that:

1. Is not a consumer product;

2. Operates at a chilled, frozen, combination chilled/ frozen, or variable temperature;

3. Displays or stores merchandise either horizontally, semi-vertically, or vertically;

4. May have transparent or solid hinged doors or both, sliding doors, a combination of hinged and sliding doors or no doors;

5. Is designed either for pull-down temperature applications or holding temperature applications;

6. Is connected to a self-contained condensing unit; and

7. Is not a refrigerator, freezer, or refrigerator-freezer designed and marketed exclusively for medical, scientific, or research purposes.

"Consumer product" means any article of a type which, to any significant extent, is distributed in commerce for personal use or consumption by individuals.

"Distributor" means a person who sells, offers for sale or installs an appliance.

"Energy efficiency ratio" means, in relation to an aircooled central air conditioner or an air-cooled central air conditioning heat pump, the ratio of the cooling capacity in Btu per hour to the power input values in watts obtained at standard rating conditions expressed in Btu per watt-hours.

"Front-loading clothes washer" means a clothes washer with the door for access to the clothes container compartment located on the front of the machine.

"Holding temperature application" means all uses of commercial refrigerator, freezer, and refrigerator-freezer equipment other than "pull-down temperature applications," as defined in this section.

"Illuminated exit sign" means a sign that is designed to be permanently fixed in place and used to identify an exit, in which a light source illuminates the sign or letters from within, and the background of the sign is not transparent.

"kVa" means kilovolt amperes, which is a unit of measurement for electric power.

"Low-voltage dry-type distribution transformer" means a transformer with an input voltage of 600 volts or less, which is between 14 kVa and 2,501 kVa in size, is air-cooled, and does not use oil as a coolant. This term does not include the following:

- 1. Auto-transformers;
- 2. Drive transformers;

- 3. Grounding transformers;
- 4. Harmonic transformers;
- 5. Impedance transformers;
- 6. Machine tool transformers;
- 7. Rectifier transformers;
- 8. Regulating transformers;
- 9. Sealed and non-ventilating transformers;

10. Testing transformers;

11. Transformers with multiple voltage taps with the highest voltage tap more than 20 percent greater than the lowest voltage tap;

12. Uninterruptible power system (UPS) transformers; and

13. Welding transformers.

"Manufacturer" means any person engaged in the original production or assembly of an appliance.

"NJDEP" means the New Jersey Department of Environmental Protection.

"Packaged air-conditioning equipment" means air-conditioning equipment that is designed and manufactured so as to work without additional equipment, and is shipped as a whole to the site at which it will be used.

"Pull-down temperature applications" means the use of commercial refrigerator, freezer, and/or refrigerator-freezer equipment to rapidly reduce the temperature of the products it contains within the following parameters:

1. A minimum reduction rate of 4.3 degrees Fahrenheit per hour over a 12-hour period; and

2. An overall integrated product temperature of 38 degrees Fahrenheit when fully loaded with beverage containers.

"Self-contained condensing unit" means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is an integral part of the refrigerated equipment. A self-contained condensing unit consists of one or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories.

"Torchiere lighting fixture" means a portable, plug-in electric lighting fixture with a reflector bowl directing light upward to provide indirect illumination.

"Traffic signal module" means a standard eight-inch (200 mm) or 12-inch (300 mm) round traffic signal indicator, consisting of a light source, lens and all parts necessary for operation, which communicates movement messages to drivers through red, amber and green colors, and may include

arrow modules in the same colors to indicate turning movements.

"Transformer" means a device consisting of two or more coils of insulated wire, which transfers alternating current by electromagnetic induction from one coil to another in order to change the original voltage or current value.

"Unit heater" means a self-contained fan-type heater that uses natural gas, propane, or fuel oil and is designed to be installed in a heated space. A unit heater contains an apparatus or appliance to supply heat, and a fan for circulating air over a heat exchange surface, all enclosed in a common casing. Unit heaters do not include "warm air furnaces" as defined under the Federal Energy Policy Act of 1992, Pub. L. 102-486.

# 14:8-5.2 Purpose and scope

(a) This subchapter performs the following functions:

1. Establishes minimum energy and water efficiency standards for appliances described in this section;

2. Establishes testing requirements and procedures for appliances described in this section;

3. Requires manufacturer certification to the Board that appliances described in this section meet the efficiency standards established in this subchapter;

4. Prohibits the sale, offer for sale, and installation of appliances described in this section that do not meet the efficiency standards established in this subchapter;

5. Provides for Board staff to inspect distributors and retailers of appliances described in this section, to monitor compliance with this subchapter;

6. Provides for Board staff to investigate complaints and report violations to the Attorney General for enforcement;

7. Sets forth penalties for violations of this subchapter; and

8. Provides for the Board to coordinate with NJDEP and the New Jersey Department of Community Affairs to implement this subchapter.

(b) This subchapter governs the following persons:

1. A person or distributor that sells or offers for sale an appliance governed by this subchapter;

2. A manufacturer that produces an appliance governed by this subchapter; and

3. A person that installs an appliance governed by this subchapter.

(c) This subchapter governs the following appliances, as defined at N.J.A.C. 14:8-5.1:

- 1. Commercial clothes washers;
- 2. Commercial refrigerators and freezers;
- 3. Illuminated exit signs;
- 4. Air-cooled central air conditioners;
- 5. Air-cooled central air conditioning heat pumps;
- 6. Low-voltage dry-type distribution transformers;
- 7. Torchiere lighting fixtures;
- 8. Traffic signal modules; and
- 9. Unit heaters.

(d) Notwithstanding (c) above, this subchapter does not apply to the following:

1. New appliances manufactured in New Jersey and sold outside New Jersey;

2. New appliances manufactured outside New Jersey and sold at wholesale inside New Jersey for final retail sale and installation outside New Jersey;

3. Appliances installed in mobile manufactured homes at the time of construction of the manufactured home; and

4. Appliances designed expressly for installation and use in recreational vehicles.

(e) The Board may arrange for testing, using an accredited testing facility, to evaluate whether an appliance complies with this subchapter.

(f) If any Federal rule is in effect that governs the same subject matter, the Board shall not enforce this subchapter.

# 14:8-5.3 Standards and testing for commercial clothes washers

(a) No person shall sell, offer to sell, or install a commercial clothes washer in New Jersey after January 7, 2008, unless the clothes washer has been certified in accordance with N.J.A.C. 14:8-5.8 to meet the energy efficiency standards in Table A below.

(b) Beginning on January 1, 2010, no person shall sell, offer to sell, or install a commercial clothes washer in New Jersey, unless the clothes washer has been certified in accordance with N.J.A.C. 14:8-5.8 to meet both the energy efficiency standards, and the water efficiency standards in Table A below.

(c) The energy efficiency of a commercial clothes washer shall be determined by calculating the washer's energy factor. The energy factor of a clothes washer is the amount of energy the washer uses to wash one cubic foot of clothing for one cycle. The energy factor of a clothes washer is determined by:

1. Summing the energy (in kwh) used to run the washer, heat the water, and remove excess moisture after the cycle; and

2. Dividing the capacity of the clothes container (in cubic feet) by the total energy use derived under (c)l above.

#### Table A

Energy and Water Efficiency Standards for Commercial Clothes Washers

<u>Appliance</u> Front-loading clothes washer	Clothes Container Compartment Capacity (in cubic feet - ft <sup>3</sup> ) < 3.5	Energy Factor (in kwhs per cubic foot per cycle) 1.26 or higher	Maximum Water (in gallons <u>per cycle)</u> 9.5 or lower
Top-loading	<1.6	0.65 or higher	9.5 or lower
clothes washer	$\geq 1.6$ and < 4.0	1.26 or higher	9.5 or lower

(d) By April 6, 2008, each manufacturer of commercial clothes washers shall ensure that a sample of each type of clothes washer manufactured, which is subject to this subchapter, is tested using the procedures specified in 10 CFR §430.23(j) (Appendix J1 to Subpart B of Part 430) incorporated herein by reference.

#### 14:8-5.4 Standards and testing for commercial refrigerator, freezer and refrigerator-freezer equipment

(a) No person shall sell, offer to sell, or install commercial refrigerator, freezer, or refrigerator-freezer equipment in New Jersey on or after January 1, 2010, unless the equipment has been certified in accordance with N.J.A.C. 14:8-5.8 to meet the applicable energy efficiency standards in Table B or C below.

(b) If commercial refrigerator, freezer, or refrigeratorfreezer equipment is designed for holding temperature applications, as defined at N.J.A.C. 14:8-5.1, the equipment shall use no more energy than the applicable maximum set forth in Table B below.

(c) For the purposes of Tables B and C below:

1. "V" means the chilled or frozen compartment volume, or the sum of both, in cubic feet:

2. "AV" means adjusted volume, which is equal to 1.63 x frozen temperature compartment volume + chilled temperature compartment volume, expressed in cubic feet; and

3. All compartment volumes shall be measured in accordance with the Association of Home Appliance Manufacturers Standard HRF-1-1979, which is incorporated by reference herein, as amended and supplemented, and can be obtained from the Association of Home Appliance Manufacturers, 1111 19th St. NW, Suite 402, Washington D.C., 20036; 202-872-5955.

#### Table B

Maximum Energy Consumption Commercial Refrigerator, Freezer, or Refrigerator-Freezer Equipment - Holding Temperature Applications

# App

<u>Appliance</u>	(kilowatt hours per o
Refrigerator with solid doors	(0.10  x V) + 2.04
Refrigerator with transparent	(0.12  x V) + 3.34
doors	
Freezer with solid doors	(0.40 x V) + 1.38
Freezer with transparent doors	(0.75 x V) + 4.10
Refrigerator-freezer with solid	The greater of:
doors	• (0.27 x AV) -
	• 0.70
Refrigerator-freezer with a sepa-	Applicable refrigera
rate refrigeration system	above + applicable f

day) 0.71; or ator standard above + applicable freezer standard above

**Maximum Energy** 

Consumption

(d) If commercial refrigerator, freezer, and refrigeratorfreezer equipment is designed for pull-down temperature applications, as defined at N.J.A.C. 14:8-5.1, the equipment shall use no more energy than the maximum set forth in Table C below:

Table C

Maximum Energy Consumption Commercial Refrigerator, Freezer, or Refrigerator-Freezer Equipment - Pull-Down Temperature Applications

	Maximum Energy
	Consumption
<u>Appliance</u>	(kilowatt hours per day)
Refrigerator with transparent doors	(0.126 x V) + 3.51
Freezer with transparent doors	(0.788  x V) + 4.3  kilowatt hours per day

(e) The manufacturer of commercial refrigerator, freezer, and/or refrigerator-freezer equipment shall test the equipment in accordance with American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Standard 117-2002 — "Method of Testing Closed Refrigerators" (ANSI Approved), which is incorporated by reference herein. as amended and supplemented, and is available at http:// www.ashrae.org.

(f) For a refrigerator, freezer, or refrigerator-freezer with doors, the rating temperatures shall be the integrated average temperature of 38 degrees Fahrenheit (plus or minus two degrees Fahrenheit) for refrigerator compartments, and zero degrees Fahrenheit (plus or minus two degrees Fahrenheit for freezer compartments).

(g) For the purpose of this section, "integrated average temperature" means the average temperature of all of the test packages for which temperatures were taken during the test.

#### Standards and testing for air-cooled central air 14:8-5.5 conditioners and air-cooled central air conditioning heat pumps

(a) No person shall sell, offer to sell, or install air-cooled central air conditioners or air-cooled central air conditioning heat pumps, as these terms are defined at N.J.A.C. 14:8-5.1, on or after January 1, 2010, unless the air conditioner or heat pump has been certified in accordance with N.J.A.C. 14:8-5.8.

(b) For an air-cooled central air conditioner, the energy efficiency ratio, as defined at N.J.A.C. 14:8-5.1, shall be as follows:

1. For an air conditioner with no heating equipment that is integrated into the air conditioner, the ratio shall be a minimum of 10.0 Btus per watt hour;

2. For an air conditioner with only electric resistance heating equipment integrated into the air conditioner, the ratio shall be a minimum of 10.0 Btus per watt hour; and

3. For an air conditioner with heating equipment, other than electric resistance heating, that is integrated into the air conditioner, the ratio shall be a minimum of 9.8 Btus per watt hour.

(c) For an air-cooled central air conditioning heat pump, the coefficient of performance, as defined at N.J.A.C. 14:8-5.1, shall be as follows:

1. For an air conditioning heat pump with no heating equipment that is integrated into the heat pump, the co-efficient shall be a minimum of 9.5;

2. For an air conditioning heat pump with only electric resistance heating equipment integrated into the air conditioner, the coefficient shall be a minimum of 9.5; and

3. For an air conditioning heat pump with integrated heating equipment other than electric resistance heating, the coefficient shall be a minimum of 9.3.

(d) For an air-cooled central air conditioning heat pump operating in the heating mode, the coefficient of performance shall be no greater than 3.2, when tested at a high temperature of 47 degrees Fahrenheit dry bulb. (e) By April 6, 2008, each manufacturer of air-cooled very large commercial packaged air conditioning and heating equipment shall ensure that a sample of each type of equipment manufactured is tested in accordance with Air-Conditioning and Refrigeration Institute Standard 340/360-2000 - "Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment" (ANSI Approved), incorporated by reference herein as amended and supplemented. This Standard is available at http://www.ashrae.org.

# 14:8-5.6 Standards and testing for low-voltage dry type distribution transformers

(a) No person shall sell, distribute, or install a low-voltage dry type distribution transformer, as defined at N.J.A.C. 14:8-5.1, after January 7, 2008, unless the transformer has been certified in accordance with N.J.A.C. 14:8-5.8 to meet or exceed the energy efficiency values shown in Table D below:

#### Table D

Energy Efficiency Standards for Low-Voltage Dry Type Distribution Transformers

Single	Single Phase Three Phase		Phase
Rated Power Output (in kVa)	Minimum Efficiency Percent	Rated Power Output (in kVa)	Minimum Efficiency Percent
$\geq 15$ and $< 25$	97.7	$\geq 15$ and $< 30$	97.0
$\geq$ 25 and < 37.5	98.0	$\geq$ 30 and < 45	97.5
$\geq$ 37.5 and < 50	98.2	$\geq$ 45 and < 75	97.7
$\geq$ 50 and < 75	98.3	$\geq$ 75 and < 112.5	98.0
$\geq$ 75 and < 100	98.5	$\geq$ 112.5 and < 150	98.2
$\geq$ 100 and < 167	98.6	$\geq$ 150 and $<$ 225	98.3
$\geq$ 167 and $\leq$ 250	98.7	$\geq$ 225 and $<$ 300	98.5
$\geq$ 250 and $<$ 333	98.8	$\geq$ 300 and $<$ 500	98.6
333	98.9	$\geq$ 500 and < 750	98.7
		$\geq$ 750 and < 1,000	98.8
		1,000	98.9

(b) Beginning April 6, 2008, each manufacturer of lowvoltage dry-type distribution transformers shall ensure that a sample of each type of transformer that they manufacture is tested using the Standard Test Method for Measuring the Energy Consumption of Distribution Transformers (NEMA TP-2-2005), published by the National Electrical Manufacturers Association, incorporated by reference herein as amended and supplemented. This Standard is available at www.nema.org.

# 14:8-5.7 Standards and testing for exit signs, torchieres, traffic signals, and unit heaters

(a) No person shall sell, offer to sell, or install an illuminated exit sign, as defined at N.J.A.C. 14:8-5.1, after January 7, 2008, unless the sign has been certified in accordance with N.J.A.C. 14:8-5.8 to meet the requirements of the United States Environmental Protection Agency's (USEPA) "Energy Star Program Requirements for Exit Signs," incorporated by reference herein as amended and supplemented, which are available at http://www.energystar.gov. (b) Beginning April 6, 2008, each manufacturer of illuminated exit signs shall ensure that a sample of each type of sign manufactured is tested, using the applicable testing procedures of the USEPA's Energy Star Specifications, Version 1.1, which are incorporated herein by reference, as amended and supplemented, and are available at <u>http://www.energystar.</u> <u>gov.</u>

(c) No person shall sell, offer to sell, or install a traffic signal module, as defined at N.J.A.C. 14:8-5.1, after January 7, 2008, unless the module has been certified in accordance with N.J.A.C. 14:8-5.8, to meet the USEPA's "Energy Star Program Requirements for Traffic Signals," which are incorporated by reference herein as amended and supplemented, available at <u>http://www.energystar.gov</u>.

(d) Each manufacturer of traffic signal modules shall ensure that a sample of each module manufactured is tested, using the applicable testing procedures of the USEPA's Energy Star Specifications, Version 1.1, which are incorporated herein by reference as amended and supplemented, available at <u>http://www.energystar.gov</u>. (e) No person shall sell, offer to sell, or install a torchiere lighting fixture, as defined at N.J.A.C. 14:8-5.1, after January 7, 2008, unless the fixture has been certified in accordance with N.J.A.C. 14:8-5.8 to consume 190 watts or less, and is not capable of operating using a bulb(s) that draws more than 190 watts.

(f) Beginning April 6, 2008, each manufacturer of torchiere lighting fixtures shall ensure that a sample of each module manufactured is tested using the IES LM-45 standard for bulb wattage, published by the Illuminating Engineering Society. This Standard is incorporated by reference herein, as amended and supplemented, and is available from the Illuminating Engineering Society, 120 Wall Street, Floor 17, New York, New York 10005-4001, 212-248-5000.

(g) No person shall sell, offer to sell, or install a unit heater, as defined at N.J.A.C. 14:8-5.1, after January 7, 2008, unless the heater has been certified in accordance with N.J.A.C. 14:8-5.8 to be equipped with an intermittent ignition device and has either power venting or an automatic flue damper.

## 14:8-5.8 Certification

(a) No person shall sell, offer for sale, or install an appliance governed by this subchapter in New Jersey, unless the appliance is certified in accordance with this section.

(b) Each manufacturer of an appliance covered by this subchapter shall submit a certification to the Board. The certification shall contain the following information:

1. The name of the manufacturer and complete contact information;

2. A list of all appliances covered by this subchapter that the manufacturer produces, including different models if multiple models are manufactured;

3. The brand name of each appliance manufactured;

4. The model number, as it appears on the appliance name plate; and

5. The name and address of the laboratory where a sample of the model was tested.

(c) Each certification shall be dated and signed by the manufacturer or its authorized representative, and shall attest to the truth and accuracy of the information in the certification. Each certification shall contain a statement that the model(s) manufactured complies with this subchapter.

(d) The manufacturer shall retain the results of all tests performed for certification of an appliance model, for two years following the submittal of the certification for that model. This requirement applies to test results for all appliance models, including test results for models no longer manufactured. (e) The manufacturer shall provide Board staff, upon request, with a copy of the test results for any appliance model for which a certification has been submitted, including documentation of the date, location, and laboratory used for the testing.

(f) If a manufacturer fails to provide the information required under (e) above for any appliance model within 45 days after a request from Board staff, the Board shall suspend the model's certification, and any person who sells, offers to sell, or installs the model shall be subject to Board enforcement action and penalties.

# 14:8-5.9 Enforcement

(a) The Board, in consultation with the Commissioner of the NJDEP, may cause periodic inspections to be made of distributors or retailers of appliances subject to this subchapter, or of any person that sells, offers for sale, or installs appliances subject to this subchapter.

(b) If the Board's testing of appliances under N.J.A.C. 14:8-5.2(e) indicates that an appliance is not in compliance with this subchapter, the Board shall report the test results to the Commissioner of NJDEP, who shall, in accordance with N.J.S.A. 48:3-103c:

1. Charge the manufacturer of the appliance for the cost of purchase and testing of the appliance; and

2. Provide information to the public on appliances found not to be in compliance with this subchapter.

(c) The Board shall issue a warning to a manufacturer, retailer or distributor for the first violation of this subchapter. The Board shall offer the manufacturer, retailer or distributor an opportunity to demonstrate that the appliance complies with this subchapter. All subsequent violations shall, after written notice to the violator, be subject to a civil penalty of \$250.00. The written notice shall provide the opportunity for a hearing if a hearing request is submitted within 30 days of the notice.

(d) Each violation of a requirement of this subchapter shall constitute a separate offense. Each day that a violation continues shall constitute a separate offense.

(e) Penalties assessed under this section shall be in addition to any costs assessed by the Commissioner of NJDEP pursuant to (b) above.

(f) The penalties provided for in this subchapter may be enforced, if necessary, by summary proceedings instituted by the Board in the name of the State in accordance with the Penalty Enforcement Law, (N.J.S.A. 2A:58-1 et seq.).

(g) The Board shall also work with the Commissioner of Community Affairs to coordinate the inspections for new products that are also covered by the standard building code of New Jersey.

### SUBCHAPTERS 6 THROUGH 7. (RESERVED)

#### SUBCHAPTER 8. STANDARD OFFER CONTRACTS

#### 14:8-8.1 Applicability

(a) This subchapter applies to a Standard Offer contract that meets all of the following criteria and in addition the criteria at (b) below:

1. The contract was executed in accordance with the Board's Demand Side Management (DSM) rules, formerly found at N.J.A.C. 14:12;

2. The contract was executed prior to July 16, 2007; and

3. The contract was in effect as of July 16, 2007.

(b) This subchapter applies to a Standard Offer contract between an energy public utility and any of the following:

1. A customer;

2. An energy service company or ESCO, as defined at N.J.A.C. 14:8-8.2; or

3. A third-party contractor working with a customer.

(c) This subchapter shall not affect the validity or conditions of contracts in any way not specifically set forth at N.J.A.C. 14:8-8.3.

#### 14:8-8.2 Definitions

The following words and terms, as used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions that apply to this subchapter can be found at N.J.A.C. 14:3-1.1 and 14:4-1.2.

"Energy public utility" means a public utility, as defined at N.J.A.C. 14:3-1.1, that provides electricity or natural gas. This term does not include a subsidiary or affiliate of a public utility, nor does it include a municipal public utility.

"Energy service company" or "ESCO" means a company that provides energy efficiency and load management equipment and/or services to energy customers.

#### 14:8-8.3 Term of existing Standard Offer contracts

(a) Standard Offer programs conducted pursuant to the Board's Demand Side Management (DSM) rules, formerly found at N.J.A.C. 14:12, have been and are suspended. Standard Offer contracts outstanding as of July 16, 2007 shall remain in effect in accordance with their terms and conditions.

(b) Notwithstanding anything in (a) above, in the event that the primary term of a contract described at N.J.A.C. 14:8-8.1(a) and (b) is less than the maximum term specified in the Standard Offer, after July 16, 2007, the primary term shall not be extended up to the maximum term, regardless of any contract provision to the contrary. This restriction shall not affect any contract whose primary term has, prior to July 16, 2007, already been extended beyond July 16, 2007.

14:8-8.3