

**Readopt with amendments Puc 2500, effective 12-5-14 (Document #10741), to read as follows:**

## CHAPTER Puc 2500 ELECTRIC RENEWABLE PORTFOLIO STANDARD

Statutory Authority: RSA 362-F:13

## PART Puc 2501 PURPOSE AND APPLICABILITY

Puc 2501.01 Purpose. The purpose of Puc 2500, pursuant to the mandate of RSA 362-F:13, is to provide for the administration of New Hampshire's renewable portfolio standards.

Puc 2501.02 Applicability. Puc 2500 shall apply to:

- (a) Providers of electricity in New Hampshire;
- (b) Persons trading renewable energy certificates issued in compliance with RSA 362-F:6 and RSA 362-F:7;
- (c) Persons who qualify for incentive payments, rebates or grants from the renewable energy fund established by RSA 362-F:10; and
- (d) Renewable energy sources and eligible customer-sited sources.

## PART Puc 2502 DEFINITIONS

Puc 2502.01 "Alternative compliance payment" means a payment that a provider of electricity must remit to the commission for each renewable energy certificate in lieu of retiring certificates to meet the portfolio standards of Puc 2503 for a given year as required by RSA 362-F:10, II.

Puc 2502.02 "Began operation" means, except where more specifically ~~described~~defined in RSA 362-F:4, I(j) and (l)(5):

(a) For a new renewable energy source that has never previously operated as an electric generation facility, the date that it was first placed in service as a capital asset for the purpose of beginning depreciation under the regulations of the Internal Revenue Code of 1986, as amended; and

(b) For an electric generation facility that has repowered as a renewable energy source, the date that the facility or a capital addition thereto, for the purpose of repowering to renewable energy, is first placed in service as a repowered facility and as a capital asset for the purpose of beginning depreciation under the Internal Revenue Code of 1986, as amended.

Puc 2502.03 "Biomass fuels" means "biomass fuels" as defined in RSA 362-F:2, II, namely "plant-derived fuel including clean and untreated wood such as brush, stumps, lumber ends and trimmings, wood pallets, bark, wood chips or pellets, shavings, sawdust and slash, agricultural crops, biogas, or liquid biofuels, but shall exclude any materials derived in whole or in part from construction and demolition debris."

Puc 2502.04 "Biodiesel" means "biodiesel" as defined in RSA 362-A:1-a, I-b, namely "a renewable diesel fuel substitute that is composed of mono-alkyl esters of long chain fatty acids, is derived from vegetable oils or animal fats, and meets the requirements of the American Society for Testing and Materials (ASTM) specification D6751."

Puc 2502.05 “Capital investment” means investment in new plant and equipment directly related to restoring generation or increasing generating capacity including department permitting requirements for new plants.

Puc 2502.06 “Certificate” means “certificate” as defined in RSA 362-F:2, III, namely “the record that identifies and represents each megawatt-hour (MWh) generated by an eligible renewable energy generating source under RSA 362-F:6.” The term “certificate” also includes the terms “renewable energy certificate” and “REC.”

Puc 2502.07 “Class I source” means:

(a) Pursuant to RSA 362-F:4, I(a), (c), (d), (e) and (f) a generation facility that began operation after January 1, 2006, and that produces electricity from any of the following:

- (1) Wind energy;
- (2) Hydrogen derived from biomass fuel or methane gas;
- (3) Ocean thermal, wave, current, or tidal energy;
- (4) Methane gas; or
- (5) Biomass;

(b) A facility that produces useful thermal energy from geothermal energy, solar thermal energy, or thermal biomass renewable energy if the unit began operation after January 1, 2013, pursuant to RSA 362-F:4, I(b), (g) and (l);

(c) A Class II source to the extent it is not otherwise used to satisfy the minimum portfolio standards of other classes pursuant to RSA 362-F:4, I(h);

(d) The incremental new production of electricity in any year from an eligible biomass or methane source, or any hydroelectric generating facility licensed or exempted from licensure by the Federal Energy Regulatory Commission (FERC), regardless of gross nameplate capacity, over the facility’s historical generation baseline, provided:

- (1) The commission certifies demonstrable completion of capital investments attributable to the efficiency improvements, additions of capacity, or increased renewable energy output that are sufficient to, were intended to, and can be demonstrated to increase annual renewable electricity output, as described in RSA 362-F:4, I(i); and
- (2) That the incremental new production of electricity arises from the associated capital investment rather than the operational changes at such facility;

(e) The production of electricity from a Class III or Class IV source that began operation as a new facility by demonstrating that 80 percent of the resulting federal income tax basis of the source’s plant and equipment, but not its real property and intangible assets, is derived from capital investment that is directly related to restoring generation or increasing capacity, pursuant to RSA 362-F:4, I(j) and Puc 2502.05; ~~and~~

(f) The portion of production of electricity from any fossil-fueled generating facility that originally began operation prior to January 1, 2006, which is attributable to Class I eligible biomass fuels co-fired after January 1, 2012, as described in RSA 362-F:4, I(k); ~~and~~

(g) The production of biodiesel by any facility located in New Hampshire that is used by a New Hampshire end user to produce useful thermal energy and meets the requirements of RSA 362-F:4, I (m) and this part.

Puc 2502.08 “Class II source” means a generation facility that produces electricity from solar technologies and that began operation after January 1, 2006, pursuant to RSA 362-F:4, II.

Puc 2502.09 “Class III source” means a generation facility that began operation prior to January 1, 2006, and produces electricity from eligible electric biomass technologies having a gross nameplate capacity of 25 megawatts or less, or from methane gas, provided that, pursuant to RSA 362-F:4, III(b), “Effective for electricity production commencing January 1, 2017, methane gas shall not qualify for class III if the production is from a source or sources which began operation prior to January 1, 2006 and which source exceeds, or sources exceed, a total gross nameplate capacity of 10 MWs in the aggregate located at any single landfill site. All phases, stages, cells, lifts, expansions, and other landfill areas shall be combined in determining the single landfill site gross nameplate capacity. Only class III and potential class III eligible sources at any single landfill site shall be included in determining whether the 10 MW aggregate limitation has been exceeded.”~~except that, effective for electricity production commencing January 1, 2017, methane gas shall not qualify for Class III if the production is from a source or sources which began operation prior to January 1, 2006 and which source exceeds, or sources exceed, a total gross nameplate capacity of 10 MWs in the aggregate located at any single landfill site; all phases, stages, cells, lifts, expansions, and other landfill areas shall be combined in determining the single landfill site gross nameplate capacity; only Class III and potential Class III eligible sources at any single landfill site shall be included in determining whether the 10 MW aggregate limitation has been exceeded.~~

Puc 2502.10 “Class IV source” means a hydroelectric generation facility that began operation prior to January 1, 2006, that has a gross nameplate capacity of 5 megawatts or less, and that meets the requirements of RSA 362-F:4, IV.

Puc 2502.11 “Co-fired electric generating facility” means any fossil-fueled electric generation facility that originally began operation prior to January 1, 2006, if, after January 1, 2012, such facility co-fires with Class I eligible biomass fuels to displace the combustion of an amount of fossil fuels and that:

(a) Either has a quarterly average nitrogen oxide (NOx) emission rate, as measured and verified under RSA 362-F:12, of less than or equal to 0.075 pounds (lbs)/million British thermal units (MMBtu) or has a plan approved by the department for reductions in NOx emission from other emissions sources in accordance with RSA 362-F:4,I(k)(1). The quantity of reductions shall be the fraction of electrical production derived from the combustion of biomass fuels multiplied by the difference between the generation unit’s NOx emission rate and 0.075 lbs/MMBtu; and

(b) Either has a particulate emission rate, as measured and verified under RSA 362-F:12, of less than or equal to 0.02 lbs/MMBtu or has a plan approved by the department for reductions in particulate matter emissions from emission sources owned by or affiliated with the co-firing entity in accordance with RSA 362-F:4,I(k)(2). The quantity of reductions shall be the fraction of electrical production derived from the combustion of biomass fuels multiplied by the difference between the generation unit’s particulate matter emission rate and 0.02 lbs/MMBtu.

Puc 2502.12 “Commission” means the New Hampshire public utilities commission.

Puc 2502.13 “Control area” means a geographic region in which a common generation control system is used to maintain the interchange of electrical energy within and outside the region.

Puc 2502.14 “Customer-sited source” means “customer sited-source” as defined in RSA 362-F:2, V, namely “a source that is interconnected on the end-use customer’s side of the retail electricity meter in such a manner that it displaces all or part of the metered consumption of the end-use customer.”

Puc 2502.15 “Default service” means “default service” as defined in RSA 362-F:2, VI, namely “electricity supply that is available to retail customers who are otherwise without an electricity supplier as defined in RSA 374-F:2, I-a.”

Puc 2502.16 “Department” means the New Hampshire department of environmental services.

Puc 2502.17 “Distribution utility” means any electric transmission or distribution company and includes rural electric cooperatives.

Puc 2502.18 “Eligible electric biomass technologies” means electric generating technologies that use biomass fuels as their primary fuel, provided that the generation unit:

(a) Has a quarterly average nitrogen oxide (NO<sub>x</sub>) emission rate for the hours in the calendar quarter during which the device generated electricity of less than or equal to 0.075 pounds/million British thermal units (lbs/MMBtu), and either has a particulate emission rate of less than or equal to 0.02 lbs/MMBtu as measured and verified under RSA 362-F:12, or is participating in a plan approved by the department under RSA 362-F:11, IV for reductions in particulate matter emissions from other emission sources comparable to the difference between the generation unit’s particulate matter emissions rate and the 0.02 lbs/MMBtu rate; and

(b) Uses any fuel other than the primary fuel only for start-up, maintenance, or other required internal needs.

Puc 2502.19 “End-use customer” means any person or entity that purchases electricity supply at retail in New Hampshire from another person or entity but shall not include a generating facility taking station service at wholesale from the regional market administered by the independent system operator (ISO-New England) or self-supplying from its other generating stations.

Puc 2502.20 “Generation attributes” means the non-price characteristics of the electrical or thermal energy output of a unit including, but not limited to, the unit’s location, fuel type, actual emissions, vintage, and portfolio standard eligibility.

Puc 2502.21 “Generation information system (GIS)” means the system operated by the New England Power Pool (NEPOOL), which includes a generation information database and certificate system, and that accounts for certain generation attributes.

Puc 2502.22 “Historical generation baseline” means:

(a) For a hydroelectric facility, the average annual electrical production, in megawatt-hours, from the later of January 1, 1986, or the date of first commercial operation through December 31, 2005, adjusted as if any upgrade or expansion completed during the period had been in place over the entire period as described in RSA 362-F:2, X(b); or

(b) For other facilities, the average annual electrical production, in megawatt-hours, for 2004 through 2006, or for the first 36 months after the facility began operation if that date is after December 31, 2001, as described in RSA 362-F:2, X(a).

Puc 2502.23 “ISO New England” means the not-for-profit regional transmission organization authorized by FERC to operate the bulk electricity transmission system in the New England Control Area, or its successor.

Puc 2502.24 “Incremental new production” means the difference between the yearly electricity output of an eligible source and its historical generation baseline.

Puc 2502.25 “Independent monitor” means a person or entity certified by the commission to perform duties pursuant to Puc 2505.10.

Puc 2502.26 “Large biodiesel end user” means a person or entity who or which uses biodiesel to produce useful thermal energy using a thermal energy system with a total gross nameplate heating capacity of all units combined of more than 1,000,000 British thermal units (Btu) per hour of heat input.

Puc 2502.27 “Large thermal source” means a source with a total gross nameplate heating capacity of its REC eligible units, combined, of more than 1,000,000 Btu per hour of heat input.

Puc 2502.28 “Methane gas” means “methane gas” as defined in RSA 362-F:2, XI, namely “biologically derived methane gas from anaerobic digestion of organic materials from such sources as yard waste, food waste, animal waste, sewage sludge, septage, and landfill waste.”

Puc 2502.29 “New England control area” means “New England control area” as defined in RSA 362-F:2, XII, namely “the term as defined in ISO-New England’s transmission, markets and services tariff, FERC electric tariff no. 3, section II.” This includes Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, and those parts of Maine not assigned to another control area pursuant to a FERC-approved tariff.

Puc 2502.30 “Portfolio standards” means the minimum renewable energy certificate obligations pursuant to RSA 362-F:3~~7~~ and Puc 2503.01.

Puc 2502.31 “Primary fuel” means “primary fuel” as defined in RSA 362-F:2, XIII, namely “a fuel or fuels, either singly or in combination, that comprises at least 90 percent of the total energy input into a generating unit.”

Puc 2502.32 “Provider of electricity” means “provider of electricity” as defined in RSA 362-F:2, XIV.

Puc 2502.33 “Renewable energy fund” means the nonlapsing special fund created by RSA 362-F:10 and administered by the commission.

Puc 2502.34 “Renewable energy source” means “renewable energy source” as defined in RSA 362-F:2, XV, namely “a Class I, II, III, or IV source of electricity or a Class I source of useful thermal energy. An electrical generating facility, while selling its electrical output at long-term rates established before January 1, 2007 by orders of the commission under RSA 362-A:4, shall not be considered a renewable source.” The term “renewable energy source” includes the terms “renewable source” and “source.”

Puc 2502.35 “Retire” means to make no further use of a certificate for purposes of trading in the generation attributes associated with the certificate.

Puc 2502.36 “Revenue quality meter” means an electricity meter used by a customer-sited source that is of sufficient quality to be eligible for use by a distribution utility to measure for billing purposes the customer’s electricity consumption.

Puc 2502.37 “Small thermal source” means a source with a total gross nameplate heating capacity of its REC eligible units, combined, of 1,000,000 Btu per hour or less of heat input.

Puc 2502.38 “Thermal biomass renewable energy technologies” means facilities, comprised of one or more biomass units, that produce useful thermal energy using biomass as the fuel source, that began operation after January 1, 2013, and that:

(a) If the biomass unit is rated between 3 and 30 MMBtu/hour design gross heat input, has a particulate emission rate from the unit that is less than or equal to 0.10 lbs/MMBtu;

(b) If the biomass unit is rated equal to or greater than 30 MMBtu/hour design gross heat input, has a particulate emission rate from the unit that is less than or equal to 0.02 lbs/MMBtu as measured and verified by the department pursuant to RSA 362-F:12;

(c) If the biomass unit is rated less than 100 MMBtu/hour design gross heat input, implements best management practices as established by the department; and

(d) If the biomass unit is rated equal to or greater than 100 MMBtu/hour design gross heat input, has a quarterly average NOx emission rate that is no more than 0.075 lbs/MMBtu as measured and verified by the department pursuant to RSA 362-F:12.

Puc 2502.39 “Useful thermal energy” means “useful thermal energy” as defined in RSA 362-F:2, XV-a, namely “renewable energy delivered from Class I sources that can be metered and that is delivered in New Hampshire to an end user in the form of direct heat, steam, hot water, or other thermal form that is used for heating, cooling, humidity control, process use, or other valid thermal end use energy requirements and for which fuel or electricity would otherwise be consumed.”

Puc 2502.40 “Year” means “year” as defined in RSA 362-F:2, XVI, namely “a calendar year beginning January 1, and ending December 31.”

#### PART Puc 2503 PORTFOLIO STANDARDS

##### Puc 2503.01 Portfolio Standards.

(a) Except as provided in (j) and (oh) below, for each year specified in Table 2500.01 below each provider of electricity shall:

(1) Obtain and retire certificates sufficient in number and class type to meet or exceed the percentages of total megawatt-hours of electricity supplied by the provider to its end-use customers for each year as established by (b) through (h) below; or

(2) Make alternative compliance payments pursuant to Puc 2503.02.

(b) Except as provided in (j) and (oh) below, for years 2012 through 2025 and thereafter, the percentages shall be as specified in RSA 362-F:3, which are set forth in Table 2500.01 as follows, as such percentages have been modified through 2016 by the Commission in proceedings conducted pursuant to (d) through (ig) below ~~through 2016~~, and as such percentages may be modified thereafter pursuant to (d) through (ig) below.

Table 2500.01 Portfolio Standards

Calendar Year	Class I Non-Thermal	Class I from useful thermal energy	Total Class I	Class II	Class III	Class IV
2012	3.00%	0.00%	3.00%	0.15%	1.40%	1.00%
2013	3.80%	0.00%	3.80%	0.20%	0.50%	1.30%
2014	4.60%	0.40%	5.00%	0.30%	0.50%	1.40%
2015	5.40%	0.60%	6.00%	0.30%	0.50%	1.50%
2016	5.60%	0.60%	6.20%	0.30%	0.50%	1.50%

2017	6.80%	1.00%	7.80%	0.30%	8.00%	1.50%
2018	7.50%	1.20%	8.70%	0.50%	8.00%	1.50%
2019	8.20%	1.40%	9.60%	0.60%	8.00%	1.50%
2020	8.90%	1.60%	10.50%	0.70%	8.00%	1.50%
2021	9.60%	1.80%	11.40%	0.70%	8.00%	1.50%
2022	10.30%	2.00%	12.30%	0.70%	8.00%	1.50%
2023	11.00%	2.20%	13.20%	0.70%	8.00%	1.50%
2024	11.90%	2.20%	14.10%	0.70%	8.00%	1.50%
2025 and thereafter	12.80%	2.20%	15.00%	0.70%	8.00%	1.50%

(c) A provider of electricity may use certificates issued based on the production of biodiesel to meet up to 12.5% of the provider's non-thermal class I portfolio standard requirements in any given year.

(d) Upon a petition or on its own motion, and after notice and hearing, the commission shall for good cause accelerate or delay by up to one year any annual increase in Class I or Class II portfolio standards.

(e) For purposes of (d) above, "good cause" means that the acceleration or delay of an increase is reasonably expected to:

- (1) Increase investment in renewable energy production in New Hampshire; or
- (2) Mitigate cost increases to retail electric rates for New Hampshire customers without materially hindering the development of renewable resources.

(f) The commission shall, after notice and hearing, modify the Class III and Class IV portfolio standards if:

- (1) The modified portfolio standards would be at least 85 percent but not more than 95 percent of the reasonable expected annual output of available eligible sources; and
- (2) The modification would be consistent with the purposes of RSA 362-F.

(g) In determining whether to modify Class III and Class IV portfolio standards pursuant to (e) above, the commission shall consider evidence regarding supply and demand from similar programs in other states.

(h) Proceedings conducted under this section shall be adjudicative and shall be conducted pursuant to Part Puc 203. A notice issued pursuant to Puc 203.12 in such proceeding shall be sent to all providers of electricity.

(i) The commission shall post each order issued pursuant to this section on its web site.

(j) Increases in the annual purchase percentages applicable to class II for 2018 and thereafter shall not apply to the megawatt-hours delivered during the contract term under any electrical power supply contract entered into prior to July 11, 2017, provided that the contract term in effect before such effective date has not been extended or otherwise increased after that date, ~~and all such~~ megawatt-hours delivered under any such contract shall be subject to a class II annual purchase percentage of 0.30%.

(k) Pursuant to RSA 362-F:15, II (b), ~~C~~certificates for periods after March 31, 2017 produced by previously-certified class III sources determined to be ineligible because they have a total aggregate gross nameplate capacity in excess of 10 megawatts located at a single landfill site, including all phases, stages, cells, lifts, expansions, and other landfill areas, shall not be used for portfolio standards compliance.

~~(l)~~ (l) ~~Notwithstanding (k) above, any such Class III~~ ~~unless the~~ certificates ~~were~~ purchased pursuant to a contract entered into prior to July 11, 2017 shall be eligible for portfolio standards compliance for the term of such contract, and provided that the term of the contract has not been extended or otherwise increased after that date.

~~(m)~~ (m) Providers of electricity shall inform the commission by July 1 of each year, through July 1, 2020, of all contracts referenced in (j) and ~~(k)~~ above. ~~Such information shall,~~ including the execution date and expiration date of the contract, the basis for exemption under (j) or ~~(k)~~ above, and, in the case of contracts referenced in (j) above, the annual megawatt-hours supplied and exempted, and, in the case of contracts referenced in ~~(k)~~ above, the annual amount of exempted Class III methane gas certificates and the basis for exemption.

~~(n)~~ (n) All information filed with the commission pursuant to (l) above shall be deemed exempt from public disclosure pursuant to the provisions of RSA 91-A:5, IV and shall be marked “confidential” by the filer of such information.

~~(o)~~ (o) The annual portfolio standards set forth in Table 2500.02 shall apply to the electrical load under any electrical power supply contracts for a term of years entered into by providers of electricity on or before July 1, 2012. Upon the expiration of any such contract, the portfolio standards set forth in Table 2500.01 shall apply. For purposes of this section, “term of years” means a contract term of 12 months or more from the date of execution, without regard to any renewal or extension period.

Table 2500.02 Portfolio Standards

for Power Supply Contracts Entered into Prior to July 1, 2012

Calendar Year	Class I	Class II	Class III	Class IV
2012	3.0%	0.15%	6.5%	1.0%
2013	4.0%	0.2%	6.5%	1.0%
2014	5.0%	0.3%	6.5%	1.0%
2015	6.0%	0.3%	6.5%	1.0%
2016	7.0%	0.3%	6.5%	1.0%
2017	8.0%	0.3%	6.5%	1.0%
2018	9.0%	0.3%	6.5%	1.0%
2019	10.0%	0.3%	6.5%	1.0%
2020	11.0%	0.3%	6.5%	1.0%
2021	12.0%	0.3%	6.5%	1.0%
2022	13.0%	0.3%	6.5%	1.0%
2023	14.0%	0.3%	6.5%	1.0%
2024	15.0%	0.3%	6.5%	1.0%
2025	16.0%	0.3%	6.5%	1.0%

Puc 2503.02 Alternative Compliance Payments.

(a) In lieu of meeting the portfolio standards of RSA 362-F:3 and Puc 2503.01(a)(1) for a given year, if and to the extent sufficient certificates are not otherwise available at a price below the amounts specified in RSA 362-F:10, II and III, a provider of electricity shall make the appropriate alternative compliance payment to the commission at the rates established by RSA 362-F:10, II and III and calculated by the commission.

(b) On or before January 31 of each year, the commission shall establish that year's alternative compliance payment rate for each class as directed by RSA 362-F:10, III.

(c) The commission shall publish its schedule of alternative compliance payment rates established pursuant to this part on the commission's web site.

(d) A provider of electricity shall remit alternative compliance payments for each year by the following July 1 as specified by Puc 2503.03(b).

Puc 2503.03 Annual Compliance Report.

(a) On or before July 1 of each year, a provider of electricity shall provide the commission with the information required in (c) below, documenting the provider's compliance with this part for the preceding year.

(b) On or before July 1 of each year, the provider of electricity shall submit to the commission either a check payable to the ~~S~~state of New Hampshire in the amount of any alternative compliance payments due pursuant to Puc 2503.02 or documentation that the funds have been electronically transferred to the renewable energy fund bank account.

(c) The information referenced in (a) above shall include:

- (1) The name of the provider of electricity filing the report;
- (2) The date of the report;
- (3) The year represented by the report;
- (4) The name, title, and signature of the officer or employee who prepared the report;
- (5) The total number of kilowatt-hours of electricity sold or delivered to end use customers;
- (6) A list of electrical power supply contracts for a term of years that were executed on or before July 1, 2012, pursuant to Puc 2503.01(n), including the execution date and expiration dates of each contract, the annual amount of electricity supplied in kilowatt-hours under the contract during the preceding year, and the total amount of electricity supplied under all such contracts during the preceding year;
- (7) A list of all contracts referenced in Puc 2503.01(j), including the execution date and expiration date of the contract, the basis for exemption under Puc 2503.01(j), and the annual megawatt-hours supplied and exempted;
- (8) A list of all contracts referenced in Puc 2503.01(k), including the execution date and expiration date of the contract, the basis for exemption under Puc 2503.01(k), and the annual amount of exempted Class III methane gas certificates and the basis for exemption;
- (9) Total certificate obligations in kilowatt-hours for each class calculated using the percentages in Table 2500.01 and, as applicable, Table 2500.02;
- (10) Total GIS certificates retired for each class of sources listed in Table 2500.01 and, as applicable, Table 2500.02;
- (11) Total GIS biodiesel certificates retired to meet up to 12.5% of class I non-thermal requirement;

- (12) Total costs incurred for the purchase of certificates by class;
- (13) Total certificates from years other than the compliance year by class and by year of issuance used pursuant to RSA 362-F:7, I;
- (14) The balance of certificate obligations to be met with alternative compliance payments by class;
- (15) The total dollar amount of alternative compliance payments owed by class using the alternative compliance payments schedule determined by the commission pursuant to Puc 2503.02;
- (16) The total excess certificates by class to be banked for future compliance years; and
- (17) The total net metering certificate credits by class calculated pursuant to RSA 362-F:6, II-a and Puc 2503.04.

(d) A provider of electricity shall separately file its report titled "My Settled Certificates Disposition," issued by the GIS to the provider containing the final number of certificates settled for the prior year no later than July 31 of each year.

Puc 2503.04 Net-Metering Credit.

(a) A provider of electricity shall receive Class I and Class II certificate credits for the production of electricity at customer-sited sources that is net-metered to a distribution utility pursuant to RSA 362-A:9 and Puc 900 provided that:

- (1) The customer-sited source is eligible to produce Class I or Class II certificates;
- (2) The commission has not certified the customer-sited source for the production of Class I or Class II certificates; and
- (3) The certificates or generation attributes have not been used for compliance with any similar requirements of another non-federal jurisdiction, or otherwise sold, retired, claimed, or represented as part of any other electrical energy output, thermal energy output, portfolio, or sale.

(b) On or before February 1 of each year, distribution utilities shall submit to the commission the following:

- (1) A list of customer-sited sources eligible for Class I certification that meet the requirements of Puc 2503.04(a)(1), including the owner of the source, the location of the source, the type of renewable energy used by the source, the nameplate rated capacity or system design capacity in alternating current of the generator in kilowatts (kW), and the date the source became operational;
- (2) A list of customer-sited sources eligible for Class II certification that meet the requirements of Puc 2503.04 (a)(1), including the owner of the source, the location of the source, the nameplate rated capacity or system design capacity of the inverters in alternating current, and the date the source became operational;
- (3) Total annual electricity sales in kWh for the preceding year; and
- (4) Total default service sales in kWh or equivalent for the preceding year.

(c) The commission shall estimate the total yearly production for Class I and Class II customer-sited sources identified pursuant to paragraph (b) using a capacity factor rating of 20 percent for each installation.

(d) By February 28 of each year, the commission shall compute and make public credit percentages that are equal to the estimated production for the prior year in each class divided by the total amount of electricity supplied to end-use customers in the prior year, with the results converted to a percentage.

(e) Each provider of electricity may, at the time of filing its annual report pursuant to Puc 2503.03, claim a Class I and a Class II certificate credit equal to the credit percentage for each class multiplied by the total megawatt-hours of electricity supplied by the provider to its end-use customers in the preceding year.

#### Puc 2503.05 Certificate Banking.

(a) Except as provided in paragraphs (b) through (d) below, certificates obtained in compliance with this chapter shall be used to comply with the portfolio standards for the year in which the energy represented by the certificate was produced.

(b) A provider of electricity may bank unused certificates and thereafter use them to comply with the portfolio standards for the 2 years following the year in which the energy was produced pursuant to (c) below.

(c) An owner of certificates may bank unused certificates by filing with the commission the following:

(1) By July 1 of each year, information regarding the total amount of excess certificates by class to be banked for future compliance years; and

(2) By July 31 of each year, the report titled "My Settled Certificates Disposition," issued by GIS to the owner indicating the total number of certificates owned and settled for the prior year.

(d) No provider of electricity shall meet more than 30 percent of its portfolio standards for any individual class in any given year with certificates acquired pursuant to paragraph (b).

### PART Puc 2504 ISSUANCE AND TRANSFER OF RENEWABLE ENERGY CERTIFICATES

#### Puc 2504.01 Location of Sources Eligible to be Issued Certificates.

(a) Certificates used to comply with the portfolio standards shall, pursuant to RSA 362-F:6, IV, originate from:

(1) Sources within the New England control area; or

(2) Sources in a control area adjacent to the New England control area, provided that the energy is delivered within the New England control area and such delivery is verified by submitting to the commission:

a. Documentation of a unit-specific bilateral contract or other legally enforceable obligation that is executed between the source owner, operator, or authorized agent and an electric energy purchaser located within the New England control area for delivery of the source's electric energy to the New England control area;

b. Proof of associated transmission rights for delivery of the source's electric energy from the generation unit of the source through the adjacent control area to the New England control area;

- c. Documentation that the electrical energy delivered was settled in the ISO-New England wholesale market system;
- d. Documentation that the source produced, during each hour of the applicable month, the amount of megawatt-hours claimed, as verified by the GIS administrator; and
- e. Confirmation that the electrical energy delivered under the legal obligation received a North American Electric Reliability Corporation tag from the originating control area to the New England control area.

(b) If the originating control area employs a generation information system that is comparable to the GIS, such system may be used to support the documentation required in (a)(2)d above.

(c) Issuance, qualification, sales, exchanges, and retirement of certificates pursuant to this chapter shall be conducted through the GIS according to its operating rules.

(d) Certificates used to comply with the thermal portfolio standards shall originate from sources that delivered the useful thermal energy in New Hampshire.

(e) Certificates based on the production of biodiesel at a facility located in New Hampshire shall be issued based on delivery of the biodiesel to end users in New Hampshire to be used to produce useful thermal energy.

#### Puc 2504.02 Transferability of Certificates.

(a) A certificate may be sold or otherwise exchanged by the source to which it was initially issued or by any other person or entity that acquires the certificate.

(b) A certificate shall be used only once for compliance with the portfolio standards of this chapter.

(c) A certificate shall not be used for compliance with this chapter if it has been used for compliance with any similar requirements of another non-federal jurisdiction, or otherwise sold, retired, claimed or represented as part of any other electrical energy output, thermal energy output, portfolio, or sale.

(d) A certificate that has been used for compliance with this chapter shall not be used for compliance with any similar requirements of another non-federal jurisdiction, or otherwise sold, retired, claimed or represented as part of any other electrical energy output, thermal energy output, portfolio, or sale.

### PART Puc 2505 CERTIFICATION OF RENEWABLE ENERGY SOURCES

#### Puc 2505.01 Eligibility Determinations.

(a) The commission shall within 45 days of receiving a completed application pursuant to this part determine the eligibility of a facility to be issued new certificates.

(b) The applicant shall have the burden of demonstrating eligibility to be issued new certificates.

(c) The effective date of certification shall be the date that a completed application is submitted to the commission, except that no certification of a biodiesel production facility shall be effective prior to January 1, 2018.

(d) When issuing a certification under this rule, the commission shall provide a copy to the owner of the facility and the administrator of the GIS. To be issued new certificates, the owner shall register with the GIS and comply with its rules and procedures.

(e) No generation facility shall be eligible to be issued new certificates under this chapter while selling its electrical output at long-term rates established before January 1, 2007, by orders of the commission under RSA 362-A:4.

(f) No customer-sited source shall be certified as eligible to be issued new certificates under this part unless the source is located in New Hampshire.

(g) No thermal energy source shall be certified as eligible to be issued new certificates under this part unless the thermal energy is delivered in New Hampshire.

(h) No biodiesel production facility shall be certified as eligible to be issued new certificates under this part unless the facility is located in New Hampshire.

Puc 2505.02 Application Requirements.

(a) To qualify as a facility eligible to be issued new certificates under this chapter, a proposed source shall demonstrate its eligibility under Class I, II, III, or IV by providing the commission with the information specified in this section.

(b) For customer-sited sources with a gross nameplate capacity or system design capacity of 100 kilowatts in alternating current or less of electricity, the applicant shall provide:

- (1) The name, address, and contact information of the applicant and of the owner of the source, if different;
- (2) The name and location of the facility, the initial date of operation, and if applicable, the facility operator and contact information;
- (3) A complete list of the equipment used at the facility, including the meter and, if applicable, the inverter;
- (4) The gross nameplate capacity or system design capacity of the source;
- (5) The GIS facility code;
- (6) The name and contact information of the installer of the generation equipment, or a statement that the equipment was installed directly by the customer;
- (7) The name and contact information of the seller of the generation equipment;
- (8) The name and contact information of the independent monitor of the source;
- (9) A copy of the interconnection agreement pursuant to Puc 307.06, if applicable, between the applicant and the distribution utility;
- (10) For an installation with electric output, documentation of the applicable distribution utility's approval of the installation;
- (11) For a source using electric biomass technology or a co-fired electric generating facility, documentation from the department certifying compliance with emission requirements as described in (c)(6) below;
- (12) A statement that the project meets the metering requirements of Puc 2506;

(13) A statement that the project is installed and operating in conformance with any applicable building codes; and

(14) A statement by the owner that the information provided is accurate.

(c) For customer-sited sources with a gross nameplate capacity or system design capacity of more than 100 kilowatts in alternating current and for all other sources generating electricity, the applicant shall provide:

(1) The name and address of the applicant and of the owner of the source, if different;

(2) The name and location of the facility, and if applicable, the facility operator and contact information;

(3) The ISO-New England asset identification number, if available;

(4) The GIS facility code;

(5) A description of the facility, including fuel type, gross nameplate capacity or system design capacity, the initial commercial operation date, and the date it began operation, if different;

(6) If an eligible electric biomass technology or co-fired electric generating facility, the following documentation from the department certifying compliance with emission requirements including the following:

a. NO<sub>x</sub> emission rate in lb/MMBtu, quarterly average;

b. Particulate matter emission rate in lb/MMBtu;

c. Other source NO<sub>x</sub> emission reduction plan for a co-fired electric generating facility, as applicable;

d. Other source particulate emission reduction plan, as applicable; and

e. For co-fired electric generating facilities, the methodology to be used to calculate the electrical production derived from the combustion of biomass fuels;

(7) All other necessary regulatory approvals that are related to REC requirements, including any reviews, approvals, or permits required by the department;

(8) Proof that the applicant either has an approved interconnection study on file with the commission, is a party to a currently effective interconnection agreement, or is otherwise not required to undertake an interconnection study;

(9) A description of how the generation facility is connected to the distribution utility;

(10) A description of how the facility's output is reported to the GIS if not reported to and verified by ISO-New England;

(11) A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof;

(12) A statement as to whether the facility's output is reported to and verified by ISO-New England;

(13) A statement that the source complies with the metering requirements of Puc 2506;

- (14) A statement by the owner that the information provided is accurate;
- (15) The name and telephone number of the facility's operator, if different from the owner;
- (16) If applicable, the name and contact information of the independent monitor of the source;  
and
- (17) Such other information as the applicant wishes to provide to assist in classification of the generating facility.

(d) For sources producing useful thermal energy, the applicant shall provide:

- (1) The name, address, and contact information of the applicant and of the owner of the source, if different;
- (2) The name and location of the facility, the date of initial operation, and if applicable, the facility operator and contact information;
- (3) A description of the equipment and meters used to measure useful thermal energy including the manufacturer, model, placement of the sensors in the energy production system, temperature operating range, flow operating range, thermal energy operating range, and pressure operating range, if applicable;
- (4) A description of the manufacturer's recommended methods and frequency for meter calibration;
- (5) The rated thermal heating capacity of the facility, expressed in Btu/hour and megawatt equivalent;
- (6) The GIS facility code;
- (7) The name and contact information of the installer of thermal biomass facility, solar thermal technology, or geothermal system, or a statement that the equipment was installed directly by the owner;
- (8) The name and contact information of the seller of the thermal equipment;
- (9) The name and contact information of the independent monitor of the facility;
- (10) For large thermal sources, the manufacturer's guaranteed accuracy of the meters or sensors used to calculate thermal energy output and, for small thermal sources which shall measure useful thermal energy pursuant to Puc 2506.04(g)(2) through (g)(4);
- (11) For small thermal sources, a description of the methodology used to calculate the useful thermal energy pursuant to Puc 2506.04 including the equations and values for the variables in the equations;
- (12) For large thermal sources, a description of the methodology used to calculate the useful thermal energy pursuant to Puc 2506.04;
- (13) The discount factors for meter accuracy pursuant to Puc 2506.05(e) to be applied for REC calculations, if applicable;
- (14) The discount factor for operating energy and thermal energy losses pursuant to Puc 2506.05(f) to be applied for REC calculations, if applicable, or a detailed description of the

method for determining a discount factor for operating energy and thermal energy losses, if applicable;

(15) If a thermal biomass facility, the following documentation from the department certifying compliance with the following, as applicable:

- a. For units with a heat input capacity of 100 MMBtu/hour or greater, the NO<sub>x</sub> emission rate in lb/MMBtu, quarterly average;
- b. For units with a heat input capacity of 3 MMBtu/hour or greater, the particulate matter emission rate in lb/MMBtu;
- c. A description of pollution control equipment or proposed practices for compliance with NO<sub>x</sub> and particulate matter requirements; and
- d. For units with a heat input capacity of less than 100 MMBtu/hour, the proposed best management practices that are consistent with the recommendations in the report entitled "Emission Controls for Small Wood-Fired Boilers" prepared for the United States Forest Service, Western Forestry Leadership Coalition, by RSG, Inc., May 6, 2010, available at [http://www.biomasscenter.org/images/stories/FSE\\_PM\\_Emissions.pdf](http://www.biomasscenter.org/images/stories/FSE_PM_Emissions.pdf), as specified in Appendix B.

(16) A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standards and proof thereof;

(17) Such other information as the applicant wishes to provide to assist in certification of the facility;

(18) A statement by the owner that the information provided is accurate and that all other necessary regulatory approvals that are related to REC eligible facilities have been received, including any reviews, approvals or permits required by the department; and

(19) A statement by a professional engineer that is licensed in New Hampshire and in good standing that the project meets the metering requirements of Puc 2506 and that the meters were installed according to manufacturer's recommendation, and that the renewable energy source meets the requirements of this part.

(e) For combined heat and power facilities, the applicant shall provide:

- (1) As to the eligibility to be issued certificates for electricity production, the information required under Puc 2505.02(b) or (c); and
- (2) As to the eligibility to be issued certificates for thermal energy output, the information required under Puc 2505.02(d).

(f) For biodiesel production facilities, the applicant shall provide:

- (1) The name, address, and contact information of the applicant and of the owner of the facility, if different;
- (2) The name and location of the facility, the date of initial operation, and, if applicable, the facility operator and contact information;
- (3) The GIS facility code;

- (4) The name and contact information of the independent monitor of the facility;
- (5) Production facility capacity and volume of annual production output;
- (6) A description of the equipment and meters used to measure biodiesel production and sales;
- (7) Copies of all applicable air emissions and water discharge permits and approvals for operation in the State of New Hampshire, or certification that the facility is not required to obtain any such permits or approvals;
- (8) Certification by the producer that the facility is in compliance with all applicable air emissions and water discharge standards; and
- (9) As required for the sale of biodiesel in New Hampshire under RSA 260:52-f, certification by the producer that the biodiesel fuel produced meets the ASTM D6751 standard specifications.

Puc 2505.03 Preliminary Designation.

(a) A developer of a proposed new or repowered source may request preliminary designation as an eligible source by submitting the information described in Puc 2505.02, provided that any tentative or estimated information, such as the initial commercial operation date, is so identified.

(b) The commission shall rule on a request for preliminary designation within 60 days of receiving all the required information. The commission shall grant the request for preliminary designation when the facts provided demonstrate that the planned facility is expected to meet the requirements of the requested class. When granting such a request, the commission shall attach such conditions to its approval as are reasonably necessary to ensure compliance with RSA 362-F and this chapter. When denying such a request, the commission shall provide a detailed explanation of the basis for its decision.

(c) Preliminary designation under this section shall not exempt a facility from the regular application requirements of this part. A facility granted preliminary designation of eligibility shall be entitled to full certification, provided that the facility as constructed or modified is consistent with the facts as stated in the request for preliminary designation and complies with any conditions added by the commission.

Puc 2505.04 Certification of Biomass Facilities Producing Electricity or Useful Thermal Energy.

(a) Eligibility determinations of facilities that use biomass fuels shall be conditional as required by RSA 362-F:11, III.

(b) Each thermal biomass renewable energy source shall file with the department a statement that the source was operated in compliance with all the eligibility criteria to produce RECs for the applicable period, including the following information for the source:

- (1) Within 45 days of the end of each calendar quarter, for a thermal biomass unit rated greater than 100 MMBtu/hr, quarterly average NOx emission rate;
- (2) Within 45 days of the end of the calendar quarter in which the testing occurred, for a thermal biomass unit rated greater than 30 MMBtu/hr, particulate matter emission rate from the most recent stack test report; and

(3) Within 45 days of the end of the calendar quarter in which the testing occurred, for a thermal biomass unit rated less than 100 MMBtu/hr, the most recent test report demonstrating compliance with best management practices.

(c) Each eligible electric biomass source shall file with the department within 45 days of the end of each calendar quarter the following:

(1) Documentation showing the source's average NOx emission rate for such quarter as required by RSA 362-F:12, III;

(2) Documentation showing the source's particulate matter emission rates for the most recent particulate matter stack test results as required by RSA 362-F:12, III;

(3) If a co-fired electric generating facility, documentation of compliance with the emission reduction plan for other NOx emission sources, as applicable; and

(4) If a co-fired electric generating facility or eligible electric biomass technology, documentation of compliance with the emission reduction plan for other PM emission sources, as applicable.

(d) Documentation for purposes of (c) above shall include copies of the applicable pages from the excess emission report from the subject quarter and the most recent particulate matter stack test report.

(e) Within 10 days of receiving notice from the department that a facility conditionally certified pursuant to paragraph (a) has met the department's emissions standards pursuant to RSA 362-F:12, III, the commission shall certify the facility as eligible to be issued certificates.

(f) An eligible electric biomass facility that otherwise meets the eligibility requirements of Class III but which, as of January 1, 2012, was not eligible due to inability to achieve the particulate matter emissions rate specified in RSA 362-F:2, VIII(a), and which obtains department approval of an alternative plan under RSA 362-F:2, VIII(a), shall inform the commission of the approved plan and the commission shall determine the eligibility of the source in accordance with the department-approved plan pursuant to RSA 362-F:11, IV.

(g) A biomass facility generating electricity shall verify compliance with the emission standard for particulate matter by conducting a stack test in accordance with Env-A 800 and as follows:

(1) For purposes of initial certification the testing shall occur prior to the first quarter for which the facility wishes to produce RECs;

(2) Except as provided for in RSA 362-F:12, II, the results of the most recent stack test shall be valid for use in verifying the particulate emission rate beginning with the calendar quarter following the stack test and for 3 subsequent calendar quarters;

(3) If a facility conducts a stack test that fails to demonstrate compliance with the particulate emission standard, the facility shall be deemed to have not met the particulate emission standard for the quarter in which the unsuccessful test was performed; and

(4) Notwithstanding (3) above, the unit may demonstrate that it meets the particular emission standard for a quarter in which it fails a test if it subsequently passes a test and the operating hours between the failed and passing tests represent less than 10 percent of the unit's total operating time for that quarter.

(h) All eligible electric biomass technologies and any thermal biomass renewable energy technology rated equal to or greater than 100 MMBtu/hour gross heat input shall verify compliance with the emission standards for NOx through continuous emission monitors in compliance with Env-A 808, including but not limited to the following:

(1) A biomass facility shall conduct a relative accuracy test audit of the continuous emission monitor to certify the accuracy of the NO<sub>x</sub> emissions data at least once every 4 calendar quarters, and prior to the quarter for which the facility first wishes to produce RECs; and

(2) The continuous emission monitor for measurement of NO<sub>x</sub> emission data shall have data availability equal to or greater than 90 percent per calendar quarter as ~~specified~~defined in Env-A 808 for the verification of NO<sub>x</sub> emissions.

(i) A thermal biomass unit rated greater than 3 MMBtu/hour and less than 30 MMBtu/hour gross heat input shall verify compliance with the emission standard for particulate matter by conducting a one-time stack test prior to the first quarter in which the unit intends to produce RECs. The stack test shall be conducted in accordance with Env-A 800.

(j) A thermal biomass unit rated equal to or greater than 30 MMBtu/hour shall verify compliance with the emission standard for particulate matter by conducting a stack test in accordance with Env-A 800 and as follows:

(1) For purposes of initial certification, the testing shall occur prior to the first quarter for which the facility wishes to generate credits;

(2) Except as provided for in RSA 362-F:12, II, the results of the most recent stack test may be used to verify the particulate emission rate for the period beginning with the calendar quarter following the stack test and for 3 subsequent calendar quarters;

(3) If a facility conducts a stack test that fails to demonstrate compliance with the particulate emission standard, the facility shall be deemed to not have met the particulate standard for the quarter in which the unsuccessful test was performed; and

(4) Notwithstanding (3) above, the unit may demonstrate that it met the particulate emission standard for a quarter in which it failed a test if it subsequently passes a test and the operating hours between the failed and passing tests represent less than 10 percent of the unit's total operating hours for that quarter.

(k) A thermal biomass unit rated less than 100 MMBtu/hour gross heat input shall verify compliance with best management practices as determined and approved by the department in accordance with the report entitled "Emission Controls for Small Wood-Fired Boilers," prepared for the United States Forest Service, Western Forestry Leadership Coalition by RSG Inc., May 6, 2010, available at [http://www.biomasscenter.org/images/stories/FSE\\_PM\\_Emissions.pdf](http://www.biomasscenter.org/images/stories/FSE_PM_Emissions.pdf), as specified in Appendix B.

(l) The provisions of Puc 2505.11 shall apply to biomass facilities.

(m) A thermal biomass boiler shall only be eligible to be issued RECs when burning eligible biomass fuels. The source shall keep records to verify the thermal output resulting from combustion of eligible biomass fuels.

#### Puc 2505.05 Certification of Incremental New Production.

(a) A generation facility that uses biomass, methane, or hydroelectric technologies to produce energy shall be eligible to participate as a Class I source upon certification by the commission under this rule.

(b) The commission shall certify a biomass, methane, or hydroelectric generation facility as an eligible Class I source under this rule when the applicant demonstrates completion of capital investments attributable

to efficiency improvements, additions of capacity, or increased renewable energy output that are sufficient, were intended, and can be demonstrated to increase annual renewable electricity output.

(c) The commission shall limit the certification of an applicant under this rule to the amount of incremental new production directly attributable to the new capital investments that formed the basis of the application.

(d) A Class III source eligible as a Class I source may notify the commission that it elects to be a Class III source instead of Class I source. Once such notice is given, the commission shall notify the GIS administrator that the production from that source shall qualify for Class III certificates beginning with the immediately following quarter, provided the source meets the other requirements of a Class III eligible biomass technology.

Puc 2505.06 Certification of Repowered Class III or IV Sources.

(a) A Class III or Class IV source shall be eligible to participate as a Class I source upon certification by the commission under this rule.

(b) The commission shall certify a Class III or Class IV source as a Class I source under this rule when the source has demonstrated that:

(1) It has made new capital investments for the purpose of restoring unusable generation capacity or adding to existing capacity, in light of the department's environmental permitting requirements or otherwise; and

(2) Eighty percent of the applicant's tax basis in the resulting plant and equipment of the eligible generation capacity, including department permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments.

(c) Except as provided in Puc 2505.06(e), an applicant certified as eligible under this rule to participate as a Class I source shall be deemed no longer certified as a Class III or Class IV source.

(d) The entire energy output of an eligible repowered Class I source shall be eligible for certificates.

(e) A Class III source eligible as a Class I source may notify the commission that it elects to be a Class III source instead of Class I source. Once such notice is given, the commission shall notify the GIS administrator that the production from that source shall qualify for Class III certificates beginning with the immediately following quarter, provided the source meets the other requirements of a Class III eligible biomass technology.

Puc 2505.07 Certification of Formerly Nonrenewable Energy Electric Generation Facilities as Repowered Class I Sources.

(a) An electric generation unit that is not qualified as a renewable energy source may become eligible to participate as a Class I source when it demonstrates that:

(1) It has made new capital investments for the purpose of repowering with eligible biomass technologies or methane gas and complies with the certification requirements of Puc 2505.04, if using biomass fuel; and

(2) Eighty percent of the applicant's tax basis in the resulting generation unit, including department permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments.

Puc 2505.08 Certification of Combined Heat and Power Facilities.

(a) A combined heat and power facility which seeks certification as a Class I or Class III source shall provide the following information in addition to the application required in Puc 2505.02 and Puc 2505.04:

- (1) Proof that the system meets the requirements of Puc 2505.02(c) if the applicant seeks to qualify the facility for its electric generation;
- (2) Proof that the system meets the requirements of Puc 2505.02(d) if the applicant seeks to qualify the facility for the useful thermal energy produced;
- (3) A description of the total system efficiency; and
- (4) Certification that the meters measuring thermal energy output comply with Puc 2506.04.

Puc 2505.09 Certification of Biodiesel Production Facilities

(a) Eligibility determinations of facilities that produce biodiesel shall be conditional as required by RSA 362-F:4, I (m).

(b) In order to maintain eligibility established through approval of the application required under Puc 2505.02(f), a biodiesel producer shall submit an annual report each year, including the following:

- (1) Evidence of certification of licenses for each commercial meter at the biodiesel production facility from the department of agriculture, markets, and food, division of weights and measures;
- (2) Verification of testing and certification of each such commercial meter by a licensed service technician;
- (3) Certification of compliance with all applicable federal, state, and local air emissions and water discharge standards, or a detailed description of all violations of or non-compliance with such standards;
- (4) A ~~H~~list of all customers to whom or to which the producer has made direct sales of biodiesel during the year; and
- (5) Certification by the producer that none of its direct-sale customers for which the producer is claiming certificates for biodiesel production is also claiming certificates for the customer's biodiesel use through the thermal REC program.

(c) The producer shall file the annual report required under (b) above on or before January 31 of each year following the year covered by the report.

(d) A biodiesel producer shall notify the commission of any violation of or non-compliance with any applicable federal, state, or local emissions or water discharge standards within 30 days of notification of such violation or non-compliance from the regulating agency or authority.

(e) A biodiesel producer shall notify the commission of any material change in facts represented in its application or in any annual report or prior notification submitted to the commission within 30 days following the occurrence of such change.

Puc 2505.10 Independent Monitors.

(a) An independent monitor shall verify the electricity production of a customer-sited source, the production of useful thermal energy from an eligible source, or the production of biodiesel from a certified facility, and report such production and REC calculation to the GIS. A source producing useful thermal energy or a source producing biodiesel shall retain the services of an independent monitor directly.

(b) A distribution utility shall be eligible to serve as an independent monitor for customer-sited sources and sources producing useful thermal energy within its service territory, without submitting an application for qualification pursuant to (f) below, provided that the distribution utility employs one or more persons to perform monitoring tasks who meet the qualifications specified in paragraph (c) or (d) or are approved meter readers.

(c) Except as provided in (b) above, an independent monitor who verifies electrical production shall be one of the following:

- (1) An electrician licensed by the state of New Hampshire and in good standing;
- (2) A professional engineer licensed by the state of New Hampshire and in good standing;
- (3) A certified building analyst professional as certified by the Building Performance Institute, Inc. of Malta, New York;
- (4) A certified energy manager as certified by the Association of Energy Engineers;
- (5) A home energy rater as certified by Residential Energy Services Network (RESNET); or
- (6) An independent monitor certified under a renewable portfolio standard program in another state.

(d) Except as provided in (b) above, an independent monitor who verifies useful thermal energy production shall be one of the following:

- (1) A professional engineer licensed by the ~~S~~state of New Hampshire and in good standing;
- (2) A certified building analyst professional as certified by the Building Performance Institute, Inc. of Malta, New York;
- (3) A certified energy manager as certified by the Association of Energy Engineers;
- (4) A home energy rater as certified by Residential Energy Services Network (RESNET);
- (5) An independent monitor certified under a renewable portfolio standard program in another state for monitoring useful thermal energy;
- (6) For verifying useful thermal energy from solar thermal sources, a North American Board of Certified Energy Practitioners (NABCEP) Certified Solar Heating Installer; or
- (7) For verifying useful thermal energy from geothermal sources, an International Ground Source Heat Pump Association (IGSHPA) Accredited Geothermal Installer.

(e) An independent monitor who verifies biodiesel production shall be one of the following:

- (1) A certified public accountant licensed by the state of New Hampshire and in good standing;
- (2) A professional engineer licensed by the State of New Hampshire and in good standing;
- (3) A certified energy manager as certified by the Association of Energy Engineers; or
- (4) An independent monitor certified under the federal Renewable Fuel Standard (RFS) Quality Assurance Program (QAP) for monitoring biodiesel production.

(f) To qualify as an independent monitor, an applicant shall provide the commission with the following information:

- (1) The name of the applicant;
- (2) The business address of the applicant;
- (3) A copy of the license issued by the state of New Hampshire or such other qualifying certification as may be applicable; and
- (4) A description of how the applicant will be compensated for its services.

(g) The commission shall certify as an independent monitor an applicant meeting the requirements of paragraph (c), (d), or (e) above, and shall maintain a list of certified independent monitors on its web site.

(h) No source or facility shall use an independent monitor who is a member of the immediate family of the owner of the source or facility, holds a direct or indirect ownership interest in the source or facility, is an employee of the source or facility, or is an aggregator of certificates.

(i) The duties of an independent monitor certifying electric or useful thermal energy production shall be:

- (1) Except as provided in (j) below, to perform an initial inspection of the source's meters for accuracy and capability to measure the electricity or useful thermal energy produced, unless the meter is owned by a distribution utility that has already inspected it pursuant to Puc 305;
- (2) To measure and verify quarterly the source's electricity or useful thermal energy production used to qualify for certificates pursuant to the GIS operating rules; and
- (3) To report the production of electricity or useful thermal energy from the source and the REC calculation to the customer and to the GIS quarterly in accordance with the GIS operating rules.

(j) The independent monitor shall not be required to perform an initial inspection of the meters installed at a customer-sited source if such meters are installed in conjunction with the electric system in such a manner as to provide verifiable, location-specific electricity production data to the independent monitor through electronic transmission or interface.

(k) The duties of an independent monitor for certifying the production of biodiesel shall be:

- (1) To verify the biodiesel production, sales, and certification information submitted to the independent monitor under Puc 2506.08;
- (2) To calculate REC production using the methodology described in Puc 2506.09 and report the biodiesel producer's production of RECs to GIS on a quarterly basis; and

(3) To audit the biodiesel producer's or biodiesel distributor's records when directed by the commission to verify submitted biodiesel production or sales information.

(l) An independent monitor shall not receive compensation for monitoring services that is a function of the number of certificates issued to any source or facility using the independent monitor.

(m) An independent monitor shall provide the commission with notice prior to discontinuing services as an independent monitor.

Puc 2505.11 Suspension of Eligibility to Produce Certificates for Biomass Facilities.

(a) The commission shall suspend the certification of a facility that uses biomass fuels for one or more calendar quarters when the department informs the commission that one of the following events has occurred:

(1) The facility has failed to verify that it complies with the requirements of RSA 362-F:4, I(f), (k) and (l) relative to NOx emissions or an alternative plan to reduce NOx emissions, and RSA 362-F:12, I relative to NOx emissions monitoring;

(2) The facility has failed to comply with the requirements of RSA 362-F:4, I(f), (k), and (l) relative to particulate emissions or an alternative plan to reduce particulate emissions and RSA 362-F:12, II relative to stack testing;

(3) The facility has failed to comply with the requirements of RSA 362-F:4, I(1) relative to best management practices;

(4) The facility has failed to comply with the requirement in RSA 362-F:12, III to provide a quarterly or annual filing to the commission and department relative to emissions monitoring and stack testing and an alternative emissions reduction plan, if applicable; or

(5) The facility fails to meet any of the applicable requirements in Puc 2505.04.

(b) The suspension of certification pursuant to (a) above shall be for so long as the facility has not verified that it complies with the emission requirements, including best management practices.

(c) A facility suspended pursuant to (a) above shall have its suspension lifted upon demonstration to the commission of certification by the department that it meets the emission requirements and is operating in accordance with best management practices.

(d) Upon demonstration pursuant to (c) above, the facility shall be certified to be issued certificates as of the next calendar quarter.

(e) Prior to any suspension under this section, the facility shall have an opportunity for hearing as described in Puc 2505.15.

Puc 2505.12 Suspension of Eligibility to Produce Certificates for Biodiesel Production Facilities.

(a) The commission shall suspend the eligibility of a biodiesel production facility for one or more calendar quarters if any of the following has occurred:

(1) Failure of the producer to notify the commission of any applicable federal, state, or local air emissions or water discharge standards violations or non-compliance within 30 days as required under Puc 2505.09(d);

- (2) Misrepresentation of biodiesel production or sales information in reports submitted by the biodiesel producer;
- (3) Misrepresentation of biodiesel sales to New Hampshire end users in summary distributor reports submitted to the independent monitor;
- (4) Failure to submit an annual report or notification of material change to the commission when required;
- (5) Failure of the biodiesel producer to comply with any applicable federal, state, or local air emissions or water discharge standards; or
- (6) Other misrepresentation by the biodiesel producer in any application or report submitted to the commission.

(b) The commission shall suspend the eligibility of a biodiesel producer pursuant to (a) above through the following process:

- (1) Commission staff shall review the failure or misrepresentation and propose suspension terms and conditions to the biodiesel producer;
- (2) If the biodiesel producer agrees with the proposed suspension terms and conditions, then a stipulation of suspension shall be prepared and filed with the commission, and the suspension shall be effective as of and for the number of calendar quarters specified in the stipulation; and
- (3) If the biodiesel producer does not agree with the proposed suspension terms and conditions, then the producer shall have the opportunity for an adjudicative proceeding with a hearing before the commission, pursuant to Puc 2505.15.

(c) All REC eligibility suspensions under this section shall be prospective only and, once created, no certificate shall be disqualified or removed from the GIS system.

Puc 2505.13 ~~Revocation or~~ Suspension of Eligibility to Produce Certificates.

(a) The commission shall ~~revoke or~~ suspend the eligibility of a renewable energy source for one or more calendar quarters if any of the following has occurred:

- (1) Misrepresentation of information or a false statement in any application or report submitted by the source to the commission;
- (2) Misrepresentation of information or false statement in any report or submission to the independent monitor for a customer-sited source; or
- (3) Failure to submit a notification of material change to the commission when required.

(b) The commission shall ~~revoke or~~ suspend the eligibility of a renewable energy source pursuant to (a) above through the following process:

- (1) Commission staff shall review the misrepresentation, false statement, or failure and propose ~~revocation or~~ suspension terms and conditions to the source;

(2) If the source agrees with the proposed ~~revocation or~~ suspension terms and conditions, then a stipulation of ~~revocation or~~ suspension shall be prepared and filed with the commission, and the ~~revocation or~~ suspension shall be effective as of and for the number of calendar quarters specified in the stipulation; and

(3) If the source does not agree with the proposed ~~revocation or~~ suspension terms and conditions, then the source shall have the opportunity for an adjudicative proceeding with a hearing before the commission, pursuant to Puc 2505.15.

(c) All REC eligibility revocations or suspensions under this section shall be prospective only and, once created, no certificate shall be disqualified or removed from the GIS system.

Puc 2505.14 Notification of Change.

(a) A renewable energy source certified under this part shall notify the commission in writing and within 10 days whenever there is a change in ownership, primary fuel, or any other information contained in its application for certification.

(b) The commission shall revoke or modify the certification of a renewable energy source when it determines upon investigation that any changed circumstances require such revocation or modification pursuant to this part.

Puc 2505.15 Adjudicative Proceedings; Rehearing Requests.

(a) ~~Prior to suspending or revoking a certification issued~~ For sources or facilities that have been certified under this part, the commission shall provide the certificate holder with notice and an opportunity for an adjudicative proceeding pursuant to RSA 541-A:30 and Puc 2030 ~~prior to suspension or revocation of its certification~~. The ~~certificate holder~~ source shall request a hearing within 30 days of receiving such notice, or its right to a hearing shall be waived.

(b) For all others aggrieved by a decision under this part, including, but not limited to, an applicant whose eligibility certification is denied, a motion for rehearing pursuant to RSA 541:3 a petition under this paragraph shall be filed within 30 days of the decision with which the party is aggrieved, in conformance with the provisions of Puc 203.02, Puc 203.04, and Puc 203.07 ~~or the right to a hearing shall be waived~~.

PART Puc 2506 METERING, VERIFICATION, AND REPORTING

Puc 2506.01 Metering of All Renewable Energy Sources.

(a) Electricity generation in megawatt-hours, useful thermal energy expressed in megawatt-hours, and biodiesel production expressed in megawatt-hours, shall be measured and verified in accordance with ISO-NE and GIS operating rules and this part.

(b) For each submission to GIS, the owner of a renewable energy source, the independent monitor, or the designated representative shall state in writing that the data is accurate.

(c) Each renewable energy source shall maintain all metering equipment in accordance with the manufacturer's specifications and recommendations.

Puc 2506.02 Metering of Customer-Sited Sources.

(a) A customer-sited source shall use a revenue quality meter or other meter tested and certified by the manufacturer to meet ANSI C-12 standards to measure the electricity generated.

(b) A customer-sited source shall certify to the independent monitor that the meter operates to the manufacturer's standards.

(c) A customer-sited source shall maintain the meter according to the manufacturer's recommendations.

Puc 2506.03 Metering of Co-Fired Electric Generating Sources.

(a) A co-fired source shall measure and verify electricity generation in accordance with the GIS operating rules effective October 1, June 13, 2017 and available at <http://www.nepoolgis.com/wp-content/uploads/sites/3/2017/09/GIS-Operating-Rules-Effective-10-1-17.pdf?x41232>~~<http://www.nepoolgis.com/wp-content/uploads/sites/3/2017/06/GIS-Operating-Rules-Effective-6-12-17.doc?x41232>~~, as specified in Appendix B, and shall use electric meters that satisfy the requirements of Puc 900.

(b) For co-fired sources, the source shall calculate the portion of electricity generated from the combustion of Class I biomass fuels quarterly based on the heat input of the facility by measuring the energy content of each combusted fuel using the low heat value as combusted, the mass or volumetric input flow of each of the fuels combusted, and the total electricity produced.

(c) For any Class I biomass fuel, the initial energy content shall be based on the average of a minimum of 5 samples of that fuel taken over the course of the initial quarter, or on the fuel supply contract for that fuel delivered in the initial quarter.

(d) If all the values for the energy content from the samples are within 5 percent of the average value of the samples, on a dry basis, then beginning with the subsequent quarter, the co-fired source may use a value for energy content from annual sampling of the Class I biomass fuel.

Puc 2506.04 Metering of Sources that Produce Useful Thermal Energy.

(a) Sources producing useful thermal energy shall comply with this part in metering production of useful thermal energy.

(b) Sources shall retain an independent monitor to verify the useful thermal energy produced.

(c) Sources shall take data readings for the measurement of useful thermal energy at least every hour. The useful thermal energy produced shall be totaled for each 24 hour period, each monthly period, and each quarter.

(d) Sources shall install heat meters to measure thermal energy output in accordance with the manufacturer's specifications and as noted in this part. The heat meters shall operate within the conditions for which the meter accuracies are guaranteed.

(e) Large thermal sources using a liquid or air based system shall measure the useful thermal energy produced using one of the following methods:

- (1) Installation and use of heat meters with an accuracy that complies with European Standard BS EN 1434-1 (~~2015~~~~2007~~ edition) published by CEN, the European Committee for Standardization, available ~~at~~ ~~at~~

[https://standards.cen.eu/dyn/www/f?p=204:7:0:::FSP\\_ORG\\_ID:6157&cs=1282C0738DF7742CDF646EABAA4D33336](https://standards.cen.eu/dyn/www/f?p=204:7:0:::FSP_ORG_ID:6157&cs=1282C0738DF7742CDF646EABAA4D33336), as specified in Appendix B, and that complies with paragraph (k), (l) or (m). The heat meter shall have the highest class flow meter that will cover the design flow range at the point of measurement and a temperature sensor pair of Class 5K or lower. Compliance shall be confirmed by a professional engineer licensed by the state of New Hampshire and in good standing;

(2) Installation and use of meters that do not comply with subparagraph (e)(1), provided that the manufacturers' guaranteed accuracy of the meters is  $\pm 5.0\%$  or better, and provided that a professional engineer licensed by the state of New Hampshire and in good standing confirms that the meters were installed and operate according to the manufacturers' specifications and in accordance with paragraph (k), (l) or (m); or

(3) Use of an alternative metering method approved pursuant to Puc 2506.06, provided that the accuracy of any such method is  $\pm 5.0\%$  or better, and provided that a professional engineer licensed by the state of New Hampshire and in good standing confirms that the source implemented the alternative method as approved by the commission and certifies that the alternative method achieves the stated accuracy of  $\pm 5.0\%$  or better.

(f) Large thermal sources using a steam-based system shall measure the useful thermal energy produced using one of the following methods:

(1) Installation and use of meters with accuracy of  $\pm 3.0\%$  or better, which compliance shall be confirmed by a professional engineer licensed by the state of New Hampshire and in good standing and in accordance with (m) below;

(2) Installation and use of meters that do not comply with the accuracy of subparagraph (f)(1), provided that the manufacturer's guaranteed accuracy of the meters is  $\pm 5.0\%$  or better, and provided that a professional engineer licensed by the state of New Hampshire and in good standing confirms that the meters were installed and operate according to the manufacturer's specifications and in accordance with (m) below; or

(3) Use of an alternative metering method approved pursuant to this section, provided that the accuracy of any such method is  $\pm 5.0\%$  or better, and provided that a professional engineer licensed by the state of New Hampshire and in good standing confirms that the source implemented the alternative method and confirms that the alternative method achieves the stated accuracy of  $\pm 5.0\%$  or better.

(g) Small thermal sources shall measure useful thermal energy produced using one of the following methods:

(1) For any small thermal sources, the methods described in (e) or (f) above;

(2) For small thermal sources using solar thermal technologies, the method described in (h) below;

(3) For small thermal sources using geothermal technologies, the method described in (i) below; or

(4) For small thermal sources using thermal biomass technologies, the method described in (j) below.

(h) Small thermal sources that elect pursuant to (g)(2) above to measure useful thermal energy pursuant to this paragraph shall calculate useful thermal energy produced by small thermal sources using solar technologies as follows:

- (1) “Q” means thermal energy generated, stated in Btus;
- (2) “R” means the Solar Rating and Certification Corporation (SRCC) OG100 rating on Medium Radiation (1500 Btu/ft<sup>2</sup>.day) C (36° F) Conditions, stated in thousands of Btus per day;
- (3) “L” means the orientation and shading losses calculated based on solar models such as Solar Pathfinder, T-sol, Solmetric, or another model approved by the Commission, converted from a percentage to the equivalent number less than one;
- (4) “t” means the total operating run time of the circulating pump as metered, stated in hours;
- (5) “h” means 11 hours per day to convert the SRCC OG100 rating to an hourly basis, the conversion factor; and
- (6) To calculate Q, the useful thermal energy produced by small thermal sources using solar technologies, the source shall compute the product of R, t, 1,000 and the result of 1 minus L, and divide the result by h, as in the formula below:

$$Q = [R * t * 1,000 * (1 - L)] / h$$

(i) Small thermal sources that elect pursuant to (g)(3) above to measure useful thermal energy pursuant to this paragraph shall calculate useful thermal energy produced by small thermal sources using geothermal technologies as follows:

- (1) “Q” means thermal energy generated, stated in Btus;
- (2) “HC” means the Air Conditioning, Heating and Refrigeration Institute (AHRI) certified heating capacity at part load, stated in Btus per hour;
- (3) “COP” means the AHRI Certified Coefficient of Performance;
- (4) “t” means total operating run time of the heat pump when operating in heating mode, stated in hours; and
- (5) Small thermal sources using geothermal technologies shall calculate Q, the useful thermal energy produced for each heat pump, by multiplying heat pump HC by the difference between heat pump COP and 1, multiplying the result by t, and dividing the result by COP, as in the formula below:

$$Q = [HC * (COP - 1) * t] / COP$$

(j) Small thermal sources that elect pursuant to (g)(4) above to measure useful thermal energy pursuant to this paragraph shall calculate useful thermal energy produced by small thermal sources using thermal biomass renewable energy technologies as follows:

- (1) “Q” means the thermal energy generated, stated in Btus;
- (2) “D” means the default pellet density, which shall be 0.0231 pounds per cubic inch;
- (3) “R” means the auger revolutions per hour;
- (4) “V” means auger feed volume, stated in cubic inches per auger revolution;
- (5) Small thermal sources shall assume that V equals one of the following:

- a. 5 cubic inches per revolution for augers with a 2-inch<sup>2</sup> inside diameter;
- b. 20 cubic inches per revolution for augers with a 3-inch<sup>2</sup> inside diameter;
- c. 50 cubic inches per revolution for augers with a 4-inch<sup>2</sup> inside diameter;
- d. 95 cubic inches per revolution for augers with a 5-inch<sup>2</sup> inside diameter; or
- e. 150 cubic inches per revolution for augers with a 6-inch<sup>2</sup> inside diameter;

(6) “EC” means the default energy content of pellet fuel, which shall be 7870 Btu per pound;

(7) “ASE” means the default thermal efficiency expressed as a percentage based on the manufacturer’s warranty of average seasonal thermal efficiency, or based on a default thermal efficiency of 65%;

(8) “t” means the total auger run time in hours as metered;

(9) The estimated amount of fuel burned, (that is, the product of D, R, V and t,) shall be verified by the fuel purchase records and fuel inventory; and

(10) Small thermal sources using thermal biomass renewable energy technologies with wood pellets as the fuel source may calculate Q, the useful thermal energy produced, by computing the product of D, R, V, EC, ASE and t, as in the formula below:

$$Q = (D * R * V * EC * ASE * t)$$

(k) Large thermal sources, and small thermal sources that elect pursuant to (g)(1) above, using solar thermal technologies shall calculate useful thermal energy as follows:

(1) “Q<sub>g</sub>” means the heat generated in the collector loop, stated in Btus;

(2) “dm/dt” means the mass flow of the collector working fluid measured near the inlet to the solar storage tank, stated in pounds per hour;

(3) “c<sub>p</sub>” means the specific heat of the collector fluid, stated in Btus per pound (of mass), degrees Fahrenheit (Btu/lbm-°F);

(4) “Ti” means the collector loop inlet temperature measured near the outlet of the solar storage tank, stated in degrees Fahrenheit;

(5) “To” means the collector loop outlet temperature measured near the inlet to the solar storage tank, stated in degrees Fahrenheit;

(6) “t” means the frequency at which data readings are recorded, stated in hours;

(7) Meter sensors shall be installed on the collector loop as close to the water storage tank as practical and in accordance with the meter manufacturer’s guidance; and

(8) Thermal sources using solar thermal technologies shall calculate Q, the useful thermal energy produced, by calculating the product of dm/dt, c<sub>p</sub>, the difference between To and Ti, and t, as stated in the formula below:

$$Q_g = (dm/dt) * c_p * (T_o - T_i) * t$$

(l) Large thermal sources, and small thermal sources that elect pursuant to (g)(1) above, using geothermal technologies shall calculate useful thermal energy as follows:

- (1) “ $Q_g$ ” means heat generated in the ground loop, stated in Btus;
- (2) “ $dm/dt$ ” means mass flow measured near the outlet of the ground loop, stated in pounds per hour;
- (3) “ $c_p$ ” means specific heat of the working fluid, stated in Btu/lbm-°F;
- (4) “ $t$ ” means the frequency at which data readings are recorded, stated in hours;
- (5) “ $T_i$ ” means ground loop inlet temperature measured at the inlet to the ground loop, stated in degrees Fahrenheit;
- (6) “ $T_o$ ” means ground loop outlet temperature measured at the outlet from the ground loop, stated in degrees Fahrenheit;
- (7) Bleed points, supplemental boilers, and cooling towers shall be excluded from the calculation;
- (8) Meter sensors shall be installed on the ground loop as close to the ground loop inlet and outlet as practical and in accordance with the manufacturer’s recommendation; and
- (9) Thermal sources using geothermal technologies shall calculate  $Q$ , the useful thermal energy produced, by calculating the product of  $dm/dt$ ,  $c_p$ , the difference between  $T_o$  and  $T_i$ , and  $t$ , as stated in the formula below:

$$Q_g = (dm/dt) * c_p * (T_o - T_i) * t$$

(m) Large thermal sources, and small thermal sources that elect pursuant to (g)(1) above, using thermal biomass renewable energy technologies shall calculate useful thermal energy as follows:

- (1) “ $Q_g$ ” means the thermal energy generated from biomass, stated in Btu;
- (2) “ $dm_{out}/dt$ ” means mass flow metered upstream of distribution and downstream of parasitic loads, stated in pounds per hour;
- (3) “ $h_{out}$ ” means the specific enthalpy at the metering point determined by temperature data and, for superheated steam, by pressure data, stated in Btus per pound;
- (4) “ $dm_{in}/dt$ ” means mass flow of water into the feedwater or condensate pumps, stated in pounds per hour;
- (5) “ $h_{in}$ ” means the specific enthalpy at the metering point which will be a function of the enthalpy of incoming condensate and make-up water prior to the first condensate or feedwater pumps, stated in Btus per pound;
- (6) “ $t$ ” means the intervals at which readings are recorded, stated in hours;
- (7) All metering systems shall measure boiler feedwater flow, pressure, and temperature as close to the first feedwater pump inlet as possible, thereby excluding the deaerator;
- (8) Metering for systems that produce hot water shall include sensors for temperature and hot water mass flow placed as close as possible to the boiler hot water distribution header inlet;

(9) Metering for systems that produce steam shall include sensors for temperature, pressure, and steam flow placed as close as possible to the steam distribution header inlet and thereby prior to distribution to process loads;

(10) For saturated steam systems, pressure and temperature shall be measured to verify the absence of superheat at the measurement point;

(11) For superheated systems, both pressure and temperature measurements shall be required;

(12) Regardless of phase, the enthalpy under the measured conditions shall either be calculated using the formulas in The International Association for the Properties of Water and Steam (IAPWS) Revised Release on the IAPWS Industrial Formulation 1997 for the Thermodynamic Properties of Water and Steam~~Industrial Formulation 1997 (IF97) formulas~~, August 2007 revision, <http://www.iapws.org/relguide/IF97-Rev.pdf>, as specified in Appendix B, or taken from IAPWS or derivative steam tables; and

(13) Thermal sources using thermal biomass renewable energy technologies shall calculate  $Q_g$ , the useful thermal energy produced, by calculating the product of  $dm_{out}/dt$ ,  $(h_{out})$ , and  $t$ , and subtract from that number the product of  $dm_{in}/dt$ ,  $h_{in}$  and  $t$ , as stated in the formula below:

$$Q_g = [dm_{out}/dt * (h_{out}) * t] - [dm_{in}/dt * (h_{in}) * t]$$

#### Puc 2506.05 Calculation of Certificates for Production of Useful Thermal Energy.

(a) Sources producing useful thermal energy, the independent monitor, or the designated representative shall report to GIS the useful thermal energy produced and the amount of RECs calculated pursuant to this part, as verified by the source's independent monitor.

(b) Useful thermal energy shall be expressed and reported in megawatt-hours where each 3,412,000 Btus of useful thermal energy is equivalent to one megawatt-hour.

(c) Small thermal sources shall receive certificates based on the useful thermal energy produced as metered pursuant to Puc 2506.04(e) or (f) and discounted, as applicable, by the discount for meter accuracy pursuant to (e) below or as calculated pursuant to Puc 2506.04(h), (i), or (j).

(d) Large thermal sources shall receive certificates based on the useful thermal energy calculated pursuant to Puc 2506.04(e) or (f), discounted by the sum of the percentage discount for meter accuracy pursuant to (e) below and the percentage discount for operating energy or parasitic load and thermal storage losses pursuant to (f) below.

(e) The discount factor for meter accuracy referenced in (c) and (d) above shall be one of the following:

(1) If the meters used to measure useful thermal energy output comply with the accuracy of the European Standard EN 1434 as provided in Puc 2506.04(e)(1) or the accuracy pursuant to Puc 2506.04(f)(1), there shall be no meter accuracy discount; or

(2) If the meters used to measure useful thermal energy output do not comply with the accuracy of the European Standard EN 1434 as provided in Puc 2506.04(e)(1) or the accuracy pursuant to Puc 2506.04(f)(1), the applicable meter discount shall be the manufacturer's guaranteed accuracy of the meters used or the accuracy of the alternative method approved pursuant to Puc 2506.06.

(f) The discount factor for large thermal sources for operating energy or parasitic load and thermal energy losses referenced in paragraph (d) shall be one of the following:

- (1) For sources using solar thermal technology, the discount factor shall be 3.0% of the useful thermal energy produced as measured pursuant to Puc 2506.04;
- (2) For sources using geothermal technology, the discount factor shall be 3.6% of the useful thermal energy produced as measured pursuant to Puc 2506.04; or
- (3) For sources using thermal biomass renewable energy technology, the discount factor shall be 2.0% of the useful thermal energy produced as measured pursuant to Puc 2506.04.

Puc 2506.06 Request for Alternative Method for Measuring Thermal Energy.

(a) A source shall not use an alternative metering method until that alternative method is approved by the commission.

(b) A source seeking approval of an alternative method shall provide the commission the following information:

- (1) The name, mailing address, daytime telephone number, and e-mail address of the person requesting approval for the alternative method;
- (2) The name and location of the source at which the alternative method will be implemented;
- (3) A description of the metering method otherwise required by these rules and the reasons it cannot be used with the applicant's facility;
- (4) A description of the proposed alternative method;
- (5) Technical data and information demonstrating that the accuracy of the proposed alternative method will be functionally equivalent to that achieved by the method otherwise required by these rules ~~will be substantially achieved by the proposed alternative method~~, such data and information may include third party data such as product test results from independent test laboratories, performance data based on nationally recognized product test/certification programs, published resource data for use in calculations, and examples of the use of the method by other organizations for similar purposes; and
- (6) A statement from a professional engineer licensed by the state of New Hampshire and in good standing of the meter accuracy rate that will be achieved by the alternative metering method and that the proposed alternative method is technologically sound.

(c) The commission shall approve an alternative metering method that satisfies the requirements of (b) above.

Puc 2506.07 Metering of Biodiesel Production.

(a) A biodiesel producer shall install commercial meters to measure the production and sales volumes of biodiesel produced at its facility.

(b) The biodiesel producer shall maintain the commercial volume meters with current licenses and certifications from the department of agriculture, markets, and food, division of weights and measures and shall:

- (1) Pursuant to Puc 2505.09(b), certify that the installed commercial volume meters have been licensed and are subject to current certifications from technicians licensed by the department of agriculture, markets, and food; and
- (2) Renew annually the licenses for the commercial volume meters through the department of agriculture division of weights and measures.

Puc 2506.08 Verification and Reporting for Biodiesel Production.

(a) In order to obtain certificates, a biodiesel producer shall submit to its independent monitor on a quarterly basis a producer report, including the following documents and information:

(1) The Mmonthly biodiesel facility production and sales volumes with detailed supporting documentation asin the form specified below:

a. A completed department of safety, road toll bureau, Form MFD 1-S/AF, “Motor Fuel & Aviation Fuel Distributor Reports,” or a Form BDF 1, “Biodiesel Fuel Distributor Report,” in either case as is required under RSA 260:38 to be filed with the department of safety for each monthly reporting period, including schedules and inventory report attachments that provide a record of facility production and sales by customer and fuel type; or

b. Documentation providing a record for each quarterly period of the following information:

i. Monthly production and inventory records documenting the volumes of biodiesel that were produced and sold at the facility; and

ii. Monthly sales records documenting when sales of biodiesel from the production facility occurred, the customers purchasing such biodiesel, and the volumes of biodiesel sold to such customers;

(2) A Ssummary of the producer’s direct sales by month, including identification of direct-sale customers, volumes sold to such direct-sale customers, the date of such sales, and, for any large biodiesel end users, the efficiency ratings of the end users’ thermal energy systems; and

(3) Identification of any large biodiesel end users purchasing biodiesel directly from the producer who or which are participating in the thermal REC program through combustion of the producer’s biodiesel to produce useful thermal energy, and the volumes of biodiesel sold to such end users, or certification that no such direct-sale large biodiesel end users are so participating in the thermal REC program.

(b) In order to obtain certificates, a biodiesel producer also shall arrange for its distributors to submit directly to the independent monitor on a quarterly basis a distributor sales summary report, including the following documentation and information:

(1) A Ssummary of the distributor’s sales volume by month of biodiesel produced by the producer and sold by the distributor to New Hampshire thermal end users, including volume calculations taking into account product blend levels; and

(2) An Agreement of distributor that its retail sales summary reports may be audited by the independent monitor as directed by the commission.

Puc 2506.09 Calculation of Certificates for Production of Biodiesel.

(a) When calculating the certificates to be issued to a biodiesel producer, the independent monitor shall use the following assumptions and calculations to determine an end-user efficiency rating (ER) assumptions and calculations:

(1) An ~~ER end-user efficiency rating~~ of 81% shall be used to calculate energy production from all biodiesel sales volumes, with the exception of direct sales by the producer to large biodiesel end users; and

(2) The actual thermal efficiency rating ( $E_T$ ) of the end user's system shall be used for all volumes of biodiesel sold by the producer directly to any large biodiesel end user, as provided by the producer to the independent monitor.

(b) The independent monitor shall use the following method to calculate the quantity of certificates for which a biodiesel producer is eligible:

(1) ~~End-user efficiency rating (ER)~~ is as ~~specified~~defined in (a) above;

(2) Total Verified Sales (TVS) ~~means~~is the total volume in gallons of sales to New Hampshire thermal end users that is verified through supporting records and documentation submitted to the independent monitor, excluding volumes sold directly to any large biodiesel end user participating in the thermal REC program;

(3) Thermal energy production (TEP) shall be calculated as:

$$\text{TEP} = \text{Btu/gallon} \times \text{TVS} \times \text{ER},$$

where one gallon of biodiesel contains 127,000 Btus, per the U.S. Department of Energy Biodiesel Handling and Use Guide, Fifth Edition, November 2016, available at <http://biodiesel.org/docs/using-hotline/nrel-handling-and-use.pdf?sfvrsn=4>, as specified in Appendix B; and

(4) RECs shall be calculated pursuant to the following formula:  $\text{TEP} \times \text{MWh/Btu} = \text{Total MWh of electricity equivalent}$ , where 3,412,000 Btus is equivalent to one MWh.

PART Puc 2507 AGGREGATION OF CERTIFICATES

Puc 2507.01 Registration.

(a) A person not otherwise qualified to obtain certificates may purchase, combine, and re-sell certificates if such person registers as an aggregator pursuant to this section.

(b) To register as an aggregator, an applicant shall provide the following information:

(1) The name of the aggregator;

(2) The address and telephone number of the aggregator;

(3) Identification of the independent monitor or monitors responsible for verifying the production of energy from the applicable sources or facilities; and

- (4) Certification that there exists no prohibited relationship, as defined in Puc 2507.02(b), between the aggregator and any such independent monitor or monitors.
- (c) An aggregator may aggregate certificates only if:
- (1) The associated energy produced uses the same energy resource and technology, as described in Puc 2502.07, Puc 2502.08, Puc 2502.09 and Puc 2502.10;
  - (2) The energy associated with the certificates was produced in the same year; and
  - (3) Each source to be aggregated has a unique GIS number.
- (d) An aggregator shall provide the commission with at least 30 days' notice before discontinuing the provision of aggregation services.

Puc 2507.02 Prohibited Relationships.

- (a) An aggregator shall not aggregate certificates from a customer-sited source, a source producing useful thermal energy, or a facility producing biodiesel, if the aggregator has a prohibited relationship to an independent monitor for such source or facility.
- (b) For purposes of this part, "prohibited relationship" means:
- (1) A direct or indirect ownership interest comprising at least ten percent of the stock or other equity of an entity;
  - (2) Common direct or indirect ownership of at least ten percent;
  - (3) Membership in the same household or immediate family; or
  - (4) Service as an officer, director, partner, employee, agent, or fiduciary.
- (c) If a prohibited relationship pursuant to (b) exists between an independent monitor and any member of an aggregator's household or immediate family, then the aggregator shall also be deemed to have such a prohibited relationship pursuant to this section.

PART Puc 2508 RENEWABLE ENERGY FUND

Puc 2508.01 Source of Fund. All alternative compliance payments deposited pursuant to Puc 2503.02 with the state treasurer shall be held in a nonlapsing account to be known as the renewable energy fund. The commission shall account separately for alternative compliance payments received in connection with Class II portfolio standards.

Puc 2508.02 Renewable Energy Initiatives.

- (a) The commission shall periodically issue a request for proposals for initiatives to be supported by the renewable energy fund. All such initiatives shall be located in New Hampshire.
- (b) In determining whether and to what extent it will dedicate money from the renewable energy fund to proposals submitted pursuant to (a) above, the commission shall consider the extent to which:
- (1) The initiative expands the supply of renewable energy certificates for use to comply with the portfolio;

- (2) The initiative is likely to be cost-effective;
  - (3) The initiative promotes market transformation, innovation, and energy cost savings;
  - (4) The initiative will reduce New Hampshire's electrical peak load, or fossil fuel consumption as well as defer or eliminate local utility distribution plant expenditures;
  - (5) The initiative is likely to result in economic development and environmental benefits for New Hampshire;
  - (6) The initiative increases fuel diversity in the production of electricity or useful thermal energy for consumption in New Hampshire; and
  - (7) The applicant has the capacity to successfully complete the initiative.
- (c) The commission on its own motion shall dedicate funds for those initiatives that it finds are:
- (1) Substantially consistent with the factors set forth in (b) above;
  - (2) Realistically proposed and achievable by the applicant; and
  - (3) Most likely, on balance, to advance the purposes of RSA 362-F, within the constraint of available funds.
- (d) The commission shall allocate Class II alternative compliance payments into the renewable energy fund, on an annual basis, primarily to projects and initiatives that support eligible solar technologies.
- (e) The commission shall allocate not less than 20 percent of Class I, II, III and IV alternative compliance payments received on an annual basis to customer-sited renewable energy projects or sources producing thermal energy of up to and including one megawatt in gross nameplate capacity, system design capacity, or the equivalent thermal output provided that such projects meet the requirements of Puc 2508.03.
- (f) The commission on its own motion and after notice and hearing shall establish rebate programs for renewable energy projects of up to and including one megawatt in gross nameplate capacity, system design capacity, or equivalent thermal output, to be supported by the fund allocated pursuant to (e) above.

Puc 2508.03 Customer-Sited or Thermal Energy Projects.

- (a) The provisions of this part shall apply to customer-sited sources or thermal energy sources producing up to and including one megawatt in gross nameplate capacity, system design capacity, or equivalent thermal output.
- (b) Persons seeking rebate or incentive funds for customer-sited projects or thermal energy projects from the renewable energy fund shall apply according to this section.
- (c) For residential applicants, the project shall be located in New Hampshire and the rebate or incentive payment shall be made as directed by RSA 362-F:10, V.
- (d) For all other applicants, the project shall be located in New Hampshire, the end use customer or owner of the project shall be interconnected to a provider of electricity, and the rebate or incentive payment shall be made to the owner of the project.
- (e) Applicants shall provide the following information:
- (1) The name, address and telephone number of the applicant;

- (2) The location of the proposed project;
- (3) The owner of the project;
- (4) The type of technology used in the proposed project; and
- (5) The gross nameplate capacity or system design capacity of the proposed project.

(f) Applicants shall include a signed contract with a primary installer or vendor that provides customers with a turnkey service.

(g) The commission shall notify an applicant by letter if the application is accepted for funding from the renewable energy fund, including the amount, in dollars, that may be provided through the renewable energy fund.

(h) Prior to receiving any monies from the renewable energy fund, the applicant shall demonstrate that the project is installed and operating by providing the following:

(1) For projects generating useful thermal energy, a written statement from an appropriate local official that the project is installed and operating in conformance with applicable codes, including applicable safety, zoning and building codes, and has received any required inspections; or

(2) For projects generating electricity, a written statement from the distribution utility that the interconnection between the project and the distribution utility complies with the applicable interconnection, testing, and operational requirements, though not necessarily the net metering requirements, of Puc 900, "Net Metering for Customer-Owned Renewable Energy Generation Resources of 1,000 Kilowatts or Less," or in the alternative, Puc 307.06.

(i) Upon demonstration that the project is installed and operating, the commission shall issue the rebate based on the approved application.

Puc 2508.04 Audit. A recipient of any monies disbursed from the renewable energy fund shall make its books, records, and facilities available to the commission for the purpose of allowing the commission to discharge its audit responsibilities pursuant to RSA 362-F:10, I.

## APPENDIX A

Rule	Statute
Puc 2501.01	RSA 362-F:13
Puc 2501.02	RSA 362-F
Puc 2501.02(a)	RSA 362-F:13; RSA 362-F:3
Puc 2501.02(b)	RSA 362-F:13; RSA 362-F:6
Puc 2501.02(c)	RSA 362-F:13; RSA 362-F:10
Puc 2501.02(d)	RSA 362-F:13; RSA 362-F:6 and 7
Puc 2502.01	RSA 362-F:13; RSA 362-F:10
Puc 2502.02(a)	RSA 362-F:13; RSA 362-F:2, I; RSA 362-F:4, I(j)
Puc 2502.02(b)	RSA 362-F:13; RSA 362-F:2, I; RSA 362-F:4, I(j)
Puc 2502.03	RSA 362-F:13; RSA 362-F:2, II
Puc 2502.04	RSA 362-F:13; RSA 362-F:4, I(m); RSA 362-A:1-a, I-b
Puc 2502.05	RSA 362-F:13; RSA 362-F:4, I(i)
Puc 2502.06	RSA 362-F:13; RSA 362-F:2, III
Puc 2502.07(a)	RSA 362-F:13; RSA 362-F:4, I(a), (c), (d), (e), and (f)
Puc 2502.07(b)	RSA 362-F:13; RSA 362-F:4, I(b), (g), and (l)
Puc 2502.07(c)	RSA 362-F:13; RSA 362-F:4, I(h)
Puc 2502.07(d)	RSA 362-F:13; RSA 362-F:4, I(i)
Puc 2502.07(e)	RSA 362-F:13; RSA 362-F:4, I(j)
Puc 2502.07(f)	RSA 362-F:13; RSA 362-F:4, I(k)
Puc 2502.07(g)	RSA 362-F:13; RSA 362-F:4, I(m)
Puc 2502.08	RSA 362-F:13; RSA 362-F:4, II
Puc 2502.09	RSA 362-F:13; RSA 362-F:4, III
Puc 2502.10	RSA 362-F:13; RSA 362-F:4, IV
Puc 2502.11	RSA 362-F:13; RSA 362-F:4, I(k)
Puc 2502.12	RSA 362-F:13; RSA 362-F:2, IV
Puc 2502.13	RSA 362-F:13; RSA 362-F:2, XII
Puc 2502.14	RSA 362-F:13; RSA 362-F:2, V
Puc 2502.15	RSA 362-F:13; RSA 362-F:2, VI
Puc 2502.16	RSA 362-F:13; RSA 362-F:2, VII
Puc 2502.17	RSA 362-F:13
Puc 2502.18	RSA 362-F:13; RSA 362-F:2, VIII
Puc 2502.19	RSA 362-F:13; RSA 362-F:2, IX
Puc 2502.20	RSA 362-F:13
Puc 2502.21	RSA 362-F:13; RSA 362-F:6, I
Puc 2502.22	RSA 362-F:13; RSA 362-F:2, X
Puc 2502.23	RSA 362-F:13; RSA 362-F:6, I
Puc 2502.24	RSA 362-F:13; RSA 362-F:4, I(i)
Puc 2502.25	RSA 362-F:13; RSA 362-F:6, II
Puc 2502.26	RSA 362-F:13; RSA 362-F:4, I(m)
Puc 2502.27	RSA 362-F:13; RSA 362-F:2, XV-a
Puc 2502.28	RSA 362-F:13; RSA 362-F:2, XI
Puc 2502.29	RSA 362-F:13; RSA 362-F:6, II
Puc 2502.30	RSA 362-F:13; RSA 362-F:3
Puc 2502.31	RSA 362-F:13; RSA 362-F:2, XIII
Puc 2502.32	RSA 362-F:13; RSA 362-F:2, XIV

Puc 2502.33	RSA 362-F:13; RSA 362-F:10
Puc 2502.34	RSA 362-F:13; RSA 362-F:2, XV
Puc 2502.35	RSA 362-F:13; RSA 362-F:3
Puc 2502.36	RSA 362-F:13
Puc 2502.37	RSA 362-F:13; RSA 362-F:2, XV-a
Puc 2502.38	RSA 362-F:13; RSA 362-F:12
Puc 2502.39	RSA 362-F:13; RSA 362-F:2, XV-a
Puc 2502.40	RSA 362-F:13; RSA 362-F:2, XV-a
Puc 2503.01	RSA 362-F:13; RSA 362-F:3; RSA 362-F:14; RSA 362-F:15
Puc 2503.02	RSA 362-F:13; RSA 362-F:10
Puc 2503.03	RSA 362-F:13; RSA 362-F:8
Puc 2503.04	RSA 362-F:13; RSA 362-F:6, II-a
Puc 2503.05	RSA 362-F:13; RSA 362-F:7
Puc 2504.01	RSA 362-F:13; RSA 362-F:6, IV; RSA 362-F:4, I(m)
Puc 2504.02	RSA 362-F:13; RSA 362-F:7
Puc 2505.01	RSA 362-F:13; RSA 362-F:11
Puc 2505.02	RSA 362-F:13; RSA 362-F:11, I
Puc 2505.03	RSA 362-F:13; RSA 362-F:13, V
Puc 2505.04	RSA 362-F:13; RSA 362-F:4, I(l); RSA 362-F:11, III; RSA 362-F:12
Puc 2505.05	RSA 362-F:13; RSA 362-F:4, I(i)
Puc 2505.06	RSA 362-F:13; RSA 362-F:4, I(j)
Puc 2505.07	RSA 362-F:13; RSA 362-F:4, I(l)
Puc 2505.08	RSA 362-F:13; RSA 362-F:4, I(l)
Puc 2505.09	RSA 362-F:13; RSA 362-F:4, I(m)
Puc 2505.10	RSA 362-F:13; RSA 362-F:6, II
Puc 2505.11	RSA 362-F:13; RSA 362-F:12
Puc 2505.12	RSA 362-F:13; RSA 362-F:4, I(m); RSA 362-F:11
Puc 2505.13	RSA 362-F:13; RSA 362-F:11
Puc 2505.14	RSA 362-F:13; RSA 362-F:11, II
Puc 2505.15	RSA 362-F:13; RSA 362-F:11; RSA 362-F:12
Puc 2506.01	RSA 362-F:13; RSA 362-F:6
Puc 2506.02	RSA 362-F:13; RSA 362-F:6, II; RSA 362-F:7, II
Puc 2506.03	RSA 362-F:13; RSA 362-F:4, I(k)
Puc 2506.04	RSA 362-F:13, VI-a
Puc 2506.05	RSA 362-F:13, VI-a
Puc 2506.06	RSA 362-F:13, VI-a
Puc 2506.07	RSA 362-F:13, VI-b
Puc 2506.08	RSA 362-F:13, VI-b
Puc 2506.09	RSA 362-F:13, VI-b
Puc 2507.01	RSA 362-F:13; RSA 362-F:6, II
Puc 2507.02	RSA 362-F:13; RSA 362-F:6, II
Puc 2508.01	RSA 362-F:13; RSA 362-F:10
Puc 2508.02	RSA 362-F:13; RSA 362-F:10, I
Puc 2508.03	RSA 362-F:13; RSA 362-F:10, I
Puc 2508.04	RSA 362-F:13; RSA 362-F:10, I

**APPENDIX B: INCORPORATION BY REFERENCE INFORMATION**

<b>Rule</b>	<b>Title (date)</b>	<b>Source</b>
Puc 2505.02(d)(15)d  Puc 2505.04(k)	“Emission Controls for Small Wood-Fired Boilers,” May 6, 2010, prepared for the United States Forest Service, Western Forestry Leadership Coalition, by Resource Systems Group, Inc.	Western Forestry Leadership Coalition 2850 Youngfield Street Lakewood, CO 80215  Available at: <a href="http://www.biomasscenter.org/images/stories/emissions_rpt.pdf">http://www.biomasscenter.org/images/stories/emissions_rpt.pdf</a>
Puc 2506.03(a)	GIS Operating Rules, effective October 1, 2017	New England Power Pool Generation Information System 224 Airport Parkway, Suite 500 San Jose, CA 95110  Available at: <a href="http://www.nepoolgis.com/wp-content/uploads/sites/3/2017/09/GIS-Operating-Rules-Effective-10-1-17.pdf?x41232">http://www.nepoolgis.com/wp-content/uploads/sites/3/2017/09/GIS-Operating-Rules-Effective-10-1-17.pdf?x41232</a>
Puc 2506.04(e)(1)	European Standard BS EN 1434-1, 2015 edition	CEN, the European Committee for Standardization, Rue de la Science 23 B - 1040, Brussels, Belgium  Available for \$128.00 at: <a href="http://www.offerstandards.com/bs-en-1434-12015">http://www.offerstandards.com/bs-en-1434-12015</a>
Puc 2506.04(m)(12)	The International Association for the Properties of Water and Steam Revised Release on the IAPWS Industrial Formulation 1997 for the Thermodynamic Properties of Water and Steam, August 2007 revision	The International Association for the Properties of Water and Steam Available at: <a href="http://www.iapws.org/relguide/IF97-Rev.pdf">http://www.iapws.org/relguide/IF97-Rev.pdf</a>

Puc 2506.09(b)(3)	U.S. Department of Energy Biodiesel Handling and Use Guide, Fifth Edition, November 2016	U.S. Department of Energy 1000 Independence Ave. SW Washington DC 20585 Also available at:  <a href="http://biodiesel.org/docs/using-hotline/nrel-handling-and-use.pdf?sfvrsn=4">http://biodiesel.org/docs/using-hotline/nrel-handling-and-use.pdf?sfvrsn=4</a>
----------------------	---	--