# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs DEPARTMENT OF ENERGY RESOURCES

#### RENEWABLE ENERGY PORTFOLIO STANDARD

### **GUIDELINE**

# ON ELIGIBLE BIOMASS FUEL FOR RENEWABLE GENERATION UNITS November 12, 2021

Pursuant to the Renewable Energy Portfolio Standard Regulations at 225 CMR 14.00 and 225 CMR 15.00

This Guideline provides the detailed criteria by which Renewable Energy Portfolio Standard (RPS) Renewable Generation Units (RGU) using Eligible Biomass Fuel shall be evaluated as to their eligibility, including qualifying types and sources, fuel conversion efficiency, life-cycle greenhouse gas (GHG) emission reductions, sustainability in the case of forest-derived biomass and reporting requirements.

The purpose of this Guideline is to provide clear criteria by which RGU owners, operators, developers, output aggregators, and others can ascertain the likelihood of qualification of their projects that use such fuels.

This Guideline is effective immediately upon issuance. However, the Department of Energy Resources (Department) may consider variance from the Guideline in the case of systems that went into commercial operation prior to the issuance date.

# 1. Applicability

This Guideline is applicable to all facilities utilizing biomass, biogas, and biofuels that seek qualification as RPS RGU under 225 CMR 14.00 and 225 CMR 15.00.

#### 2. Eligible Feedstocks

Per 225 CMR 14.05(1)(a)7. and 225 CMR 15.05(1)(a)8. a Generation Unit may qualify as an RPS Class I Renewable Generation Unit, provided it uses an Eligible Biomass Fuel. The Eligible Biomass Fuels include:

- Manufactured Biomass Fuel
- Eligible Biogas Fuel
- by-products or waste from animals or agricultural crops
- food or vegetative material
- algae
- organic refuse derived fuel
- Eligible Liquid Biofuel
- Eligible Biomass Woody Fuel
  - o Forest Derived Residues
  - Forest Derived Thinnings
  - Forest Salvage
  - Non-forest Derived Residues
    - Forest products industry

- Land use change agricultural
- Wood waste: Post-consumer wood products from Clean Wood
- Agricultural wood waste

For the purposes of the definition of Agricultural wood waste, trees from plantations are explicitly not considered an agricultural product. Any material from a tree plantation must meet the requirements of Forest Derived Residues and Forest Derived Thinnings in order to qualify.

#### 3. Biomass Sustainability

Per 225 CMR 14.05(8)(a) and 225 CMR 15.05(5)(a), facilities using Eligible Biomass Woody Fuel or Manufactured Biomass Fuel will need to demonstrate that any Forest Derived Residues, Forest Derived Thinnings and Forest Salvage used to generate electricity is sourced from forests managed according to Sustainable Forestry Management practices. The definition of Sustainable Forestry Management, which can be found in 225 CMR 14.02 and 225 CMR 15.02, is based off the definition of Sustainable Forestry from the *Dictionary of Forestry* provided by the Society of American Foresters. Non-Forest Derived Residues (as defined in 225 CMR 14.02 and 225 CMR 15.02) are considered to meet the sustainability requirements, so for these resources, no further sustainability demonstration is required. RGU owner or operators will need to demonstrate to the Department's satisfaction the sustainable management of the forest from which woody biomass was sourced to the extent that forest derived biomass is used to manufacture the biomass fuel. RGU owner or operators will need to document the chain of custody from the forest to the retail supplier and on to the end customer.

The following options are sufficient to demonstrate Sustainable Forest Management:

#### **A)** Licensed Forester Attestation

The licensed forester attests that all the lands from where Eligible Biomass Woody Fuel was sourced were covered by a cutting plan that adhered to best management practices, and implemented the operational guidelines for biomass retention and harvesting within the publication titled Forest Biomass Retention and Harvesting Guidelines for the Northeast (Forest Stewards Guild, 2010). For forests located in the Commonwealth of Massachusetts these requirements shall be met through a Commonwealth of Massachusetts Department of Conservation and Recreation (DCR) cutting plan pursuant to 304 CMR 11.00, under the long term management option, and include a signature from a state forester attesting to compliance of the requirements. For forests located outside of the Commonwealth of Massachusetts, these requirements can be met by a cutting plan with a signature of a licensed forester attesting that the cutting plan adhered to Sustainable Forest Management (225 CMR 14.02 and 225 CMR 15.02), adhered to the best management practices (either voluntary or regulatory) of the host state, and implemented operational guidelines for biomass retention and harvesting within the publication titled Biomass Harvesting and Retention Guidelines for the Northeast (Forest Stewards Guild, 2010).

Chain of custody is documented through bills of lading. Eligible Biomass Woody Fuel and Manufactured Biomass Fuel must be reported on a consignment basis to ensure sufficient disaggregation of sustainability data. Each consignment should constitute the same characteristics in terms of feedstock types, biomass form, and geographical origin.

#### **B) Independent Certification**

The Department recognizes independent third-party certification programs as meeting the sustainability requirements for Eligible Biomass Woody Fuel land. At time of writing, these are the Forest Stewardship Council (FSC) and Program for the Endorsement of Forest Certification (PEFC), which includes the Sustainable Forestry Initiative (SFI) and American Tree Farm System (ATFS). The Department will continue benchmarking other independent certification programs and may update this Guideline as necessary.

To demonstrate that supplied Eligible Biomass Woody Fuel qualifies for one of the approved programs, the raw material needs to be supplied with a valid claim under that approved program (i.e. it must be certified against that program). Valid claim means that the claim covers the product delivered, the expiration date has not passed and it is issued to the supplier making the claim. A supplier cannot supply raw material or fuel as certified by one of the approved programs if the material or fuel is not itself certified to that program. The raw material or fuel must be covered under the scope of the supplier's certification.

The independent certification method to verify sustainability requirements is only available to Eligible Biomass Woody Fuel that is harvested from outside of the Commonwealth of Massachusetts.

For the purpose of this program, a licensed forester is considered someone who is certified by the Society of American Foresters or has a valid forestry license issued by the Commonwealth of Massachusetts, or other comparable government entity.

#### 4. Verification

As established in 225 CMR 14.05(8)(d) and 225 CMR 15.05(5)(d), qualified RPS RGUs using Eligible Biomass Woody Fuel or Manufactured Biomass Fuels are required to document ownership of the Biomass Fuel Certificate through the Massachusetts Biomass Registry. Biomass Fuel Certificates must show that only eligible fuel was used in the RGU to generate electricity. Records used to support the data entered into the Massachusetts Biomass Registry must clearly state the following elements and can consist of invoices, delivery notes, or any other documentation provided by the fuel supplier. The records must be kept for a period of at least five (5) years.

- A) Supplier of the fuel
- B) Source of the fuel
- C) Amount of fuel delivered
- D) Date of delivery

The independent verifier for RGUs using Eligible Woody Biomass or Manufactured Biomass Fuel will perform spot checks to verify the use of eligible fuel.

#### 5. Greenhouse Gas Reduction

As established in 225 CMR 14.05(1)(a)7.d. and 225 CMR 15.05(1)(a)8.d., all qualified RGUs using Eligible Biogas Fuel, Eligible Biomass Woody Fuel, Eligible Liquid Biofuel or Manufactured Biomass Fuel shall reduce lifecycle greenhouse gas emissions by at least 50% over 20 years and if the greenhouse gas emission reductions are not achieved, the RGU will be subject to the provisions in 225 CMR 14.05(1)(a)7.d.i. or 225 CMR 15.05(1)(a)8.d.i.. The details per calculating this reduction are below.

# A) Renewable Generation Units Using Eligible Biomass Woody Fuel or Manufactured Biomass Fuel

All RGUs that use an Eligible Biomass Woody Fuel or Manufactured Biomass Fuel must verify the greenhouse gas emissions reductions by utilizing the Guideline on Overall Efficiency and Greenhouse Gas Analysis. The analysis must be submitted with the Statement of Qualification and on a quarterly basis through the Guideline on Biomass Fuel Report.

# B) Renewable Generation Units Using Eligible Liquid Biofuel, Bio-oil, and Eligible Biogas Fuel

The analysis for the 50% reduction in lifecycle GHG emissions for RGUs using Eligible Liquid Biofuel, Bio-oil, and Eligible Biogas Fuel will be conducted on a case by case basis, in consultation with MassDEP.

#### 6. System Performance

As established in 225 CMR 14.05(1)(a)7.c. and 225 CMR 15.05(1)(a)8.c., all qualified RGUs using Eligible Biomass Woody Fuels or Manufactured Biomass Fuel must achieve an overall efficiency of at least 60% on a quarterly basis, unless over 95% of its fuel sourced from Non-Forest Derived Residues. The process to document and report the overall efficiency is described in the Department's *Guideline on Overall Efficiency and Greenhouse Gas Analysis*. The analysis must be submitted with the Statement of Qualification and on a quarterly basis through the *Guideline on Biomass Fuel Report*.

#### 7. <u>Low-Emissions</u>

As established in 225 CMR 14.05(1)(a)7.b. and 225 CMR 15.05(1)(a)8.b., all qualified RGUs using Eligible Biomass Fuel must meet low emission eligibility criteria. This section of the guideline provides low emissions specifications for RGUs that use a solid fuel, such as Eligible Biomass Woody Fuel, the procedures through which DOER, in consultation with MassDEP, will determine the low-emission criteria for projects that propose to use other fuels or power conversion technologies.

## A) RPS Emission Limits for Solid-Fueled Steam Boilers<sup>1</sup>

For the sole purpose of qualifying for the MA RPS, a RGU using a solid fueled steam boiler must not exceed monthly average emission limits for nitrogen oxides (NOx) and particulate matter (PM) that are specified in Table One for Generation Units of three nameplate capacity ranges.<sup>2</sup> It should be noted that these limits may be different, both in magnitude and in averaging period, from the limits specified in the Generation Unit's Valid Air Permit, and that they must be separately reported to DOER on a quarterly basis.<sup>3</sup>

#### **Table One**

<sup>&</sup>lt;sup>1</sup> It must be noted that biomass-fired boilers may make incidental use of fossil fuels for the purpose of plant start-up. Any non-incidental use of ineligible fuels would require a Co-Firing and Composite Fuel Waiver, as provided in the Regulations at 225 CMR 14.05(3) and 225 CMR 15.05(2).

<sup>&</sup>lt;sup>2</sup> DOER has determined in consultation with the DEP that these two pollutants are the two most critical ones for wood-fired boilers. Emissions of other criteria pollutants are adequately addressed in state air permits.

<sup>&</sup>lt;sup>3</sup> The monitoring and reporting of these emissions, as well as their relation to the RPS qualification of GIS certificates are described in the section titled "Emissions Monitoring, Reporting, and Enforcement," below.

# **RPS Monthly Average Emission Limits** for Wood-Fired and Other Solid-Fueled Steam Boilers

Nameplate Capacity	NOx	PM	Monitoring/Testing
< 1 MW	0.30 lbs /MMBtu	0.012 lbs /MMBtu	Portable monitor for NOx, O2, & CO. <sup>4</sup> Initial stack test for PM, <sup>5</sup> NOx, <sup>6</sup> & CO, <sup>7</sup> and retest every five years.
1-10 MW	0.15 lbs /MMBtu	0.012 lbs /MMBtu	Portable monitor for NOx, O2, & CO. <sup>8</sup> Initial stack test for PM, NOx, & CO, and retest every three years
> 10 MW	0.065 lbs /MMBtu	0.012 lbs /MMBtu	CEMS for NOx & CO. <sup>9</sup> Annual stack test for PM. CO CEMS as surrogate for PM monthly average.

In the case of a RGU that has multiple boilers, the size ranges and emission limits of Table One apply to a shared smokestack. For example, if a Generation Unit has two boiler/turbine sets of 8 MW each and they share one smokestack, the size range will be ">10 MW." If a Generation Unit has multiple stacks, each serving one or a discrete number of boilers, then the size range and emission limit would apply to each stack separately. It is important to note that, in the case of a Generation Unit with multiple stacks, the weighted average NOx and weighted average PM emissions from all of the stacks in the Generation Unit must be in compliance with the RPS emission limits in order for the electricity output in a given month to qualify as New Renewable Generation and earn MA RPS qualified GIS certificates. However, if a multiple stack Generation Unit has a separate generator account at the NEPOOL GIS for each stack, then the Generation Unit can be subdivided for the purposes of RPS low-emission compliance and GIS certificate qualification.

In the case of a RGU that uses any solid Eligible Biomass Fuel(s) in conjunction with any ineligible fuel(s), whether by co-firing such fuels or by using a composite fuel, these size ranges and emission

<sup>&</sup>lt;sup>4</sup> Concentrations of CO, O2, and NOx shall be measured daily with a portable monitor that satisfies 40 CFR 60, Appendix B PS-2. The monitor shall be calibrated before use and the sample shall be taken from a location that satisfies the requirements of 40 CFR 60 Appendix A Methods 1 and 2. At least one sample shall be taken each day the boiler operates. Operation and maintenance of the monitor shall be according to the manufacturer's recommendations. CO is a surrogate limit for complying with the PM emissions limit. If the monthly average CO concentration exceeds 200 ppm @ 3% O2, the boiler will be considered to be in non-compliance with the PM emission limit. Portable monitors will be operated and maintained according to the manufacturers recommendations.

<sup>&</sup>lt;sup>5</sup> Testing for PM shall be conducted in accordance with 40 CFR 60, Appendix A, Test Method 5.

<sup>&</sup>lt;sup>6</sup> Testing for NOx shall be conducted in accordance with 40 CFR 60, Appendix A, Test Method 7E.

<sup>&</sup>lt;sup>7</sup> Testing for CO shall be conducted in accordance with 40 CFR 60, Appendix A, Test Method 10.

<sup>&</sup>lt;sup>8</sup> The Continuous Emissions Monitoring System (CEMS) for NOx shall satisfy either 1) 40 CFR 60, Appendix B PS-2 with the QA/QC requirements of 40 CFR 60 Appendix F or 2) 40 CFR 75, except that missing data routines and bias adjustment factors do not need to be applied. The CEMS shall be operated at all times the boiler is operating except periods of CEMS calibration checks, zero span adjustment, and preventive maintenance. Not withstanding such exceptions, in all cases the CEMS must obtain valid data for a minimum of 90% of the hours per month during which the emission unit is operating.

<sup>&</sup>lt;sup>9</sup> Specifications are the same as in footnote 8.

<sup>&</sup>lt;sup>10</sup> The method for weighting will be specified in a Generation Unit's Statement of Qualification.

limits apply to the entire Generation Unit, per the provisions at 225 CMR 14.05(3)(b) or 225 CMR 15.05(2).

Over time, the emissions limits of Table One will be lowered if it is determined that more stringent limits are commercially available and economically feasible. Any changes in these limits will be announced by DOER through a revised Guideline. To accommodate the timing of the power plant development process, such changes in emissions limits will become effective twenty-four months after they are issued. The limits will apply to all units for which an administratively complete Statement of Qualification Application is received on or after that effective date and until a subsequent revision takes effect.

#### B) Review for Other Fuels and Other Types of Biomass Generation Units

In the case of any proposed biomass RGU that does *not* use a steam boiler fueled by a solid fuel, such as Eligible Biomass Woody Fuel, DOER will consult with MassDEP by means of an interagency team to determine appropriate emission limits. Examples of such Generation Units include but are not limited to the following:

- Boilers or engines fueled by biodiesel or bio-oil.
- Equipment fueled by biogas that is not the product of anaerobic digestion.
- Bioreactors.

The interagency team will meet with project developers to provide them with guidance on applicable emission limits for RPS qualification for non-solid fueled RGU or for RGU that do not use steam boilers. In the case of projects located within Massachusetts, the interagency team will also provide guidance to applicants on MassDEP air quality permitting requirements. The interagency team will provide the following types of services:

- For in-state projects, provide an expedited process for determination of Best Available Control Technology (BACT) and other aspects of MassDEP permitting;
- Review any project if additional guidance is needed regarding the application of already established RPS emission limits;
- Review all projects for whose fuel or technology type the RPS Guidelines do not yet specify emission limits and recommend to DOER limits appropriate for the project.

As a follow-up of the third type of service, the interagency team will determine appropriate emission limits for fuels and technology types not already covered in the RPS Guidelines. MassDEP will also periodically review existing RPS emission limits and recommend to DOER reductions in these emission limits as technology improves. DOER may revise the Guideline as appropriate to incorporate such recommendations.

#### C) State Air Permitting of Biomass Generation Units

As established in 225 CMR 14.05(1)(a)7.a. and 225 CMR 15.05(1)(a)8.a., all qualified RGUs utilizing Eligible Biomass Fuel, that is required to obtain an air permit in its jurisdiction, must possess a Valid Air Permit. The RPS Regulation at 225 CMR 14.02 and 225 CMR 15.02 defines Valid Air Permit as follows:

<u>Valid Air Permit</u>. Within the United States, a current and effective authorization, license, certificate, or like approval to construct and/or operate a source of air pollution, issued or

required by the regulatory agency designated in the applicable State Implementation Plan to issue permits under the Clean Air Act, 42 U.S.C. §§ 7401, et seq., as amended. In jurisdictions outside of the United States, it shall be a document demonstrating an equivalent authorization.

The pollutants covered and the emission standards in such permits may differ from the RPS emission limits. The MA RPS low-emission criteria pertain only to the RPS qualification of the RGU and of the conditions governing the RPS qualification of its electricity output. They in no way replace the air emission obligations required by the regulatory agency that has jurisdiction where an RPS-qualified RGU is located.

For RGUs located in Massachusetts, MassDEP has established a set of emissions limits that it suggests as the starting point for BACT for solid fuel boilers within given size ranges. MassDEP will post those limits as guidance at its own website and may revise or supplement them from time to time. MassDEP will determine the effective dates of any changes that it makes in its BACT guidelines and procedures.

For RGUs *not* located in Massachusetts, applicants must provide proof of receipt of a Valid Air Permit from the applicable regulatory agency or proof that a Valid Air Permit is not required. If such Valid Air Permit has not yet been obtained by the applicant and provided to DOER by the time the Statement of Qualification Application review has been successfully completed, DOER may, in its sole discretion, issue a Statement of Qualification in which providing DOER with a copy of its Valid Air Permit is a condition of the RPS qualification.

### D) Low Emission Criteria for Generation Units That Do Not Require Valid Air Permits<sup>12</sup>

If a biomass-fueled RGU located outside Massachusetts does not require a preconstruction air permit, and if the fuel, technology type, and size of the RGU are such that the RGU would, if located in Massachusetts, require an air plan approval or some other form of Valid Air Permit, then the following criteria shall apply *solely* for MA RPS qualification:

- If the RGU uses a solid-fueled steam boiler, then the emission limits of Table One, above, will apply, along with the monitoring, reporting, and enforcement conditions described above.
- If the RGU is of a type, fuel, and size that it would, if located in Massachusetts be governed by MassDEP's Engine and Combustion Turbine Regulation at 310 CMR 7.00 et seq. and 310 CMR 70.00, then the fuel and emission limit provisions of those regulations would apply.
- All other Generation Units that are of a fuel and size that would necessitate, if located in Massachusetts, a Valid Air Permit, but that would neither use a solid-fueled steam boiler nor be governed by MassDEP's Engine and Combustion Turbine Regulation, shall be evaluated as to air emissions by the interagency team procedure described above.

If a RGU does not require an air permit because its size is *below the threshold* for regulations that would otherwise apply in either its own jurisdiction or in Massachusetts, then DOER will undertake a case-by-case review and may consult with MassDEP.

# E) Emissions Monitoring<sup>13</sup>

<sup>&</sup>lt;sup>11</sup> The DEP website is at http://www.mass.gov/dep/.

<sup>&</sup>lt;sup>12</sup> See 225 CMR 14.05(1)(a)7. and 225 CMR 15.05(1)(a)8.

For any solid-fueled RGU with a smokestack serving one or more steam boilers and generation equipment whose total nameplate capacities are greater than 10 MW, NOx emissions shall be monitored with a Continuous Emissions Monitoring System (CEMS) that satisfies either 40 CFR 60 Appendix B PS-2 (with the QA/QC requirements of 40 CFR 60 Appendix F) or 40 CFR 75, except that missing data routines and bias adjustment factors do not need to be applied. The NOx CEMS shall be operated at all times that the boiler is operating except during periods of CEMS calibration checks, zero span adjustment, and preventive maintenance. Notwithstanding such exceptions, in all cases the CEMS must provide valid data for a minimum of 90% of the hours per month during which the Generation Unit is operating. A CO CEMS also shall be used, and average monthly CO concentration will provide a surrogate limit for PM. If the combined monthly average CO concentration from all of the stacks in the Generation Unit exceeds 200 ppm @ 3% O2, the Generation Unit shall be considered to be in non-compliance with the PM emission limit. In addition, an annual stack test shall be required for PM.

For any solid-fueled RGU with a smokestack serving one or more steam boilers and generation equipment whose total nameplate capacities are below 10 MW, concentrations of NOx, CO, and O2 shall be measured daily with a portable monitor. The portable monitor shall satisfy 40 CFR 60, Appendix B PS-2. The monitor shall be calibrated before use, and the sample shall be taken from a location that satisfies the requirements of 40 CFR 60 Appendix A Methods 1 and 2. At least one sample shall be taken each day the boiler operates. Operation and maintenance of the monitor shall be according to the manufacturer's recommendations. The monthly average CO concentration will provide a surrogate limit for complying with the PM emissions limit. If the combined monthly average CO concentration from all of the stacks in the RGU exceeds 200 ppm @ 3% O2, the RGU shall be considered to be in non-compliance with the PM emission limit.

For a RGU below one MW nameplate capacity, an initial stack test shall be performed for PM, NOx, and CO, with a retest every five years. For a RGU with a nameplate capacity of one through 10 MW, an initial stack test shall be performed for PM, NOx, and CO, with a retest every three years.

### 8. Statement of Qualification

All RGU utilizing Eligible Biomass Woody Fuel and Manufactured Biomass Fuel must submit the following materials with Statement of Qualification Application.

- A Fuel Supply Plan that includes the source, type and quantity of fuel to be used. If the system is blending fuels, the RGU must specify each and every fuel that it intends to use, in what relative proportions either in co-firing or in a Blended Fuel, and with what individual input heat values. Such plan shall include the procedures by which the Renewable Generation Unit will document to the satisfaction of the Department its compliance with the plan.
- Analysis on overall efficiency and greenhouse gas reductions, as described in the Guideline on Overall Efficiency and Greenhouse Gas Analysis.

DOER may require additional materials be submitted.

#### 9. Reporting

A) Biomass Fuel Report

<sup>&</sup>lt;sup>13</sup> To the extent deemed necessary, additional protocols and procedures beyond those described in this section will be included in a Generation Unit's Statement of Qualification and may be incorporated in subsequent revision of this Guideline.

As established in 225 CMR 14.05(8)(c) and 225 CMR 15.05(5)(c), all qualified RGUs utilizing Eligible Biomass Woody Fuel or Manufactured Biomass Fuel are required to provide on a quarterly basis the *Guideline on Biomass Fuel Report*. The *Guideline on Biomass Fuel Report* must be completed, signed, and submitted to the Department of Energy Resources no later than thirty (30) days after the end of each Quarter. Each Report specifies the fuel supply for the normal operation of the Generation Unit during a calendar quarter, greenhouse gas emission reductions and overall efficiency. For this purpose and to be consistent with the Biomass Registry, the Report is to be based on fuel delivered to the Generation Unit during the calendar quarter.

Generation Unit reporting to the NEPOOL Generation Information System (NEPOOL GIS) shall continue unchanged. Upon receipt and review of the *Guideline on Biomass Fuel Report*, the Department will report to the NEPOOL GIS the percentage of the wood-fueled electrical energy output of the RGU that is qualified as Massachusetts RPS Class I Renewable Generation during the quarter. The NEPOOL GIS will multiply the MWh of metered/reported generation attributable to wood (and, if applicable, in excess of the Generation Unit's Historic Generation Rate) by this percentage to mint the appropriate quantity of Massachusetts Class I Renewable Energy Certificates (RECs) for the quarter.

As a result of this procedure, the MWh of Class I RECs each quarter would be calculated thus:

MWh of reported biomass/wood-attributed generation \* [A + B] / C, where

A = Total tons of biomass delivered to the Generation Unit that were Certified Residues

B = Total tons of biomass delivered to the Generation Unit that were Certified Thinnings

C = Total tons of biomass delivered to the Generation Unit

The *Guideline on Biomass Fuel Report* must be signed by either (a) the Authorized Representative of the Owner or Operator of the Generation Unit (the person who signed the original Statement of Qualification Application or his/her successor in office) or (b) a person to whom responsibility for fuel reporting has been delegated by the Authorized Representative. If delegated, then the Report must be accompanied by a statement of delegation signed by the Authorized Representative.

The completed, signed Report must be sent electronically to <u>DOER.RPS@mass.gov</u>. Include in the Subject line: RPS Quarterly Biomass Fuel Report - [*Generation Unit Name*].

#### **Low Emissions Report**

The Owner, Operator or Authorized Agent of a RGU utilizing solid Eligible Biomass Fuel, such as Eligible Biomass Woody Fuel, shall submit to DOER, with a copy to MassDEP (*and* to its own regulatory agency, if not located in Massachusetts), the following reports and other documentation per the timetable noted or immediately upon their availability:

MA RPS Quarterly Low-Emission Report scheduled as specified in Table Two.
 Each such report shall include a cover letter that states what is attached, summarizes the emission and compliance information derived from the Generation Unit's CEMS and/or portable monitors (including the monthly average for each stack and the average for all stacks), and the certification required in the RPS Regulation at 225 CMR 14.10(1) or 225 CMR 15.10(1). The certification shall be stated to cover both the information in the cover

- letter and in the electronic documentation. The date and summary result of the most recent, RPS-required stack test shall be included with each quarterly report. The cover letter shall be sent to DOER and MassDEP, and documentation for the information summarized in the cover letter shall be provided only on a compact disk sent to DOER and MassDEP, except for stack test data, which shall be provided as described below.
- Whenever a new, RPS-required stack test occurs and is reported to the Generation Unit's own regulatory agency, a copy to DOER and MassDEP of a summary of the results. In the case of a stack test conducted to satisfy only the requirements of MA RPS and not those of the Generation Unit's own regulatory agency, the entire report specified in the Generation Unit's Statement of Qualification must be sent to DOER and MassDEP on a compact disk along with a summary. A summary of that report shall be sent as hard copy to both DOER and MassDEP and must include the certification required in the RPS Regulation at 225 CMR 14.10(1) or 225 CMR 15.10(1). The certification shall be stated to cover both the information in the cover letter and in the electronic documentation. The date and results of each such stack test (but not documentation previously submitted) also shall be included in each MA RPS Quarterly Low-Emission Report until superseded by the results of a later stack test.
- Notification to DOER of any enforcement action by the applicable environmental agency, as required in the RPS Regulation at 225 CMR 14.06(5) or 225 CMR 15.06(5), since such action may affect the RPS qualification of the Generation Unit.

Table Two
Schedule for MA RPS Quarterly Low-Emission Reports

Quarter	Months Reported	Report Due to DOER
1	Jan, Feb, Mar	April 30
2	Apr, May, Jun	July 30
3	Jul, Aug, Sep	October 31
4	Oct, Nov, Dec	January 31

For any calendar month during which the reported monthly average emissions level for NOx or PM exceeds its RPS emissions limit<sup>14</sup> or is found to be in non-compliance with any provisions of its Statement of Qualification, the Generation Unit's Owner, Operator, or authorized agent will be in non-compliance with the requirements of 225 CMR 14.00, or 225 CMR 15.00, and shall be subject to the provisions of 225 CMR 14.12 or 225 CMR 15.12. In addition, DOER will take appropriate

<sup>&</sup>lt;sup>14</sup> In the case of PM, this would apply in the case of an exceedance of the surrogate CO limit.

action through the NEPOOL GIS to assure that the electricity output of the Generation Unit will not have MA RPS New Renewable Generation Attributes and, thereby, will not receive MA RPS-qualified GIS Certificates.

For any calendar month during which a required, periodic PM stack test of the Generation Unit reveals exceedance of the RPS PM emission limit, the Generation Unit's Owner, Operator, or authorized agent will be in non-compliance with the requirements of 225 CMR 14.00, and 225 CMR 15.00, and shall be subject to the provisions of 225 CMR 14.12 and 225 CMR 15.12. In addition, DOER will take appropriate action through the NEPOOL GIS to assure that the electricity output of the Generation Unit will not have MA RPS New Renewable Generation Attributes and, thereby, will not receive MA RPS-qualified GIS Certificates. RPS qualification of the output from the Generation Unit will resume as of the first complete month after a subsequent stack test demonstrates RPS compliance. <sup>15</sup>

In order to return to RPS compliance, the Generation Unit's Owner, Operator or authorized agent must demonstrate to the satisfaction of DOER that the emission limits are again being met. In the case of a Generation Unit that has been in non-compliance for a period of three months, such demonstration must include a report in which an Authorized Representative of the Owner, Operator or authorized agent describes and certifies the reasons for the exceedance and of actions taken to restore the Generation Unit's operation to compliance with the low-emission conditions of its Statement of Qualification, including or followed by documentation satisfactory to DOER of such restored compliance. Documentation must include a quarterly MA RPS Low-Emission Report and/or PM stack test results.

It is important to note that, if a Generation Unit has more than one smokestack, and the emissions from each are controlled, monitored and reported separately, but the Generation Unit has a single generator account with the NEPOOL GIS, the weighted average NOx and the weighted average PM emissions <sup>16</sup> from all of the stacks in the Generation Unit combined must be in compliance with the RPS emission limits in order for the electricity output in a given month to qualify as New Renewable Generation and earn MA RPS qualified GIS certificates. <sup>17</sup>

Possession of a Valid Air Permit is a threshold eligibility criterion for RPS qualification (except when such permit is not required by the applicable agency). DOER recognizes that minor or short term violations of applicable permit conditions and environmental regulations may occur from time to time, and such violations will not necessarily affect continued qualification of a Generation Unit as an RPS Qualified Generation Unit. However, DOER, in consultation with MassDEP, may review reports of enforcement actions by applicable environmental agencies, and DOER may find a Generation Unit's Owner, Operator or authorized agent in non-compliance with the requirements of 225 CMR 14.00 or 225 CMR 15.00. In case of such a finding, they shall be subject to the provisions

<sup>&</sup>lt;sup>15</sup> DOER understands that, in limited circumstances, the GIS Administrator could encode GIS certificates as RPS-qualified as of the day following a successful PM stack test, as requested by DOER. However, such immediate qualification is subject to the ability of the GIS and of the GIS Administrator. Otherwise, RPS qualification would resume as of the month following the successful stack test. The above notwithstanding, in the case of an unsuccessful stack test and a subsequent successful stack test both in the same month, RPS qualification will resume as of the following month unless the Owner, Operator or authorized agent or Operator of the Generation Unit can demonstrate to the satisfaction of DOER that the first test was an anomaly.

<sup>&</sup>lt;sup>16</sup> The method for weighting will be specified in a Generation Unit's Statement of Qualification..

<sup>&</sup>lt;sup>17</sup> As noted earlier, if a multiple stack Generation Unit has a separate generator account at the NEPOOL GIS for each stack, then the Generation Unit can be subdivided for the purposes of RPS low-emission compliance and GIS certificate qualification.

of 225 CMR 14.12 or 225 CMR 15.12. Suspension or revocation of a Generation Unit's Valid Air Permit will result in DOER's suspension of the Generation Unit's qualification or other action that DOER deems appropriate under the provisions of 225 CMR 14.12 or 225 CMR 15.12.

#### 10. Miscellaneous

The Department may permit an exception from any provision of this Guideline for good cause, so long as the exception is consistent with the requirements set out in G.L. c. 25A, § 11F and regulations promulgated thereunder.