

Appendix A: Eligibility of Resources

<u>RES Eligible Electric Generation Sources</u>	Source	Other Requirements
Biogas	Landfill Gas (Methane) Reciprocating/Internal Combustion Engine	Only the electricity generated from eligible fuel is eligible.
	Sewage Gas (Methane) Reciprocating/Internal Combustion Engine	
	Manure Digestion (Methane) Reciprocating/Internal Combustion Engine	If required to have a SPDES permit by NYSDEC regulations, a Concentrated Animal Feeding Operation (CAFO) providing the manure must have and be in compliance with its current Agricultural Waste Management Plan (AWMP) developed by a duly qualified Agricultural Environmental Management (AEM) Planner and must be operating in compliance with any applicable SPDES permit. If not required to have a SPDES permit, the CAFO must be operating in compliance with the best management practices for a facility of its size set forth in the Principles and Water Quality Protection Standards specified in the Agricultural Environmental Management (AEM) Framework & Resource Guide developed by the NYS Department of Agriculture and Markets and the NYS Soil and Water Conservation Committee.
	Anaerobic Digestion (other biogas digestion using agricultural or food processing residues and by-products)	
	Biomass* Thermochemical Gasification (syngas)	

<u>RES Eligible Electric Generation Sources</u>	Source	Other Requirements
Biogas (cont.)	Biogas (from eligible sources of biomass* feedstock) Combined Heat & Power	
	Biogas (from eligible sources of biomass* feedstock) Co-fired with existing fossil-fuel Combustion	Only the electricity generated from the eligible biomass portion of the fuel is eligible.
Biomass *	Biomass Direct Combustion	
	Biomass Combined Heat & Power	
	Biomass Co-fired with existing fossil-fuel Combustion	Only the electricity generated from the biomass portion of the fuel is eligible.
Liquid Biofuel	Biomass* Liquefaction through acid or enzymatic hydrolysis (Ethanol)	
	Biomass* Esterification (Biodiesel, Methanol)	
	Biomass* Thermochemical Pyrolysis (Bio-oil)	
	Biomass* Hydrothermal Liquefaction	
	Liquid Biofuel (from eligible sources of biomass* feedstock) Combined Heat & Power	
	Liquid Biofuel (from eligible sources of biomass* feedstock) Co-fired with existing fossil-fuel Combustion	Only the electricity generated from the biomass portion of the fuel is eligible.

RES Eligible Electric Generation Sources	Source	Other Requirements
Fuel Cells	Solid Oxide Fuel Cells (SOFC)	
	Molten Carbonate Fuel Cells (MCFC)	
	Proton Exchange Membrane Cells (PEM)	
	Phosphoric Acid Fuel Cells (PAFC)	
Hydroelectric	Hydroelectric Upgrades	No new storage impoundment, eligibility limited to the incremental production associated with the upgrade.
	Low-Impact Run-of-River Hydroelectric	No new storage impoundment.
Solar	Photovoltaics	
Tidal/Ocean	Tidal (Turbines and other rotary motion drives) electrical generators	
	Ocean Wave (Turbines and other rotary motion drives)	
	Ocean Current(Turbines and other rotary motion drives) Wave (Turbines and other rotary motion drives)	
	Ocean Thermal Pumped Storage Hydro Powered by Tidal	
Wind	Wind Turbines	

***Eligible Sources of Biomass¹**

Agricultural Residue

Woody or herbaceous matter remaining after the harvesting of crops or the thinning or pruning of orchard trees on agricultural lands. Agricultural by-products such as leather and offal and food processing residues that are converted into a biogas or liquid biofuel.

Harvested Wood

Wood harvested during commercial harvesting.

Previous Commission Orders state that biomass facility owners must have and be in compliance with an approved forest management plan (FMP) to make use of biomass that fits under the definitions of “Harvested Wood” and/or “Silvicultural Waste Wood.” The FMP should address the overall management goals and performance standards that need to be used during the procurement of the biomass resource for the facility. The FMP is required to include: standards and guidelines for sustainable forest management and requires the adherence to management practices that conserve biological diversity, productive forest capacity, and promote forest ecosystem health. The FMP must be completed by a qualified forester and approved by the Department of Public Service.

A copy of the approved FMP needs to be provided to each of the biomass suppliers for the biomass facility. Suppliers need to be in compliance with the FMP for the facility. Landowners supplying feedstocks to the suppliers are not required to have their own forest management plan. However, suppliers are required to prepare harvest plans for each parcel where harvested biomass is supplied to an RPS program eligible generator. This requirement should be clearly stated in the FMP. It should be further stated that harvest plan content and adherence to the harvest plan remains the responsibility of the participating biomass facility.

Silvicultural Waste Wood

Wood harvested during timber stand improvement and other forest management activities conducted to improve the health and productivity of the forest. The requirements for approved Forest Management Plans and Harvest Plans are the same as for “Harvested Wood” stated above.

Mill Residue Wood

Hogged bark, trim slabs, planer shavings, sawdust, sander dust and pulverized scraps from sawmills, millworks and secondary wood products industries.

¹ Details on certain requirements are more fully documented in the NYSERDA Publication: Biomass Power Guide, Revised July 22, 2014 available on the NYSERDA Website <http://www.nyserdera.ny.gov/Cleantech-and-Innovation/Biomass>.

Pallet Waste

Unadulterated wood collected from portable platforms used for storing or moving cargo or freight.

Site Conversion Waste Wood

Wood harvested when forestland is cleared for the development of buildings, roads or other improvements.

Sustainable Yield Wood (woody or herbaceous)

Woody or herbaceous crops grown specifically for the purpose of being consumed as an energy feedstock (energy crops).

Urban Wood Waste and Refuse Derived Fuel

Two types of refuse derived fuels qualify as eligible fuels:

1. The source-separated, combustible, untreated and unadulterated wood portion of municipal solid waste or construction and demolition debris, including biomass prepared by a densification process resulting in a uniformly sized, easy to handle fuel pellet or briquette.
2. Clean wood recovered from a Construction and Demolition (C&D) debris at a permitted Material Reclamation Facility (MRF) or C&D processing facility. This type of eligible fuel is subject to additional quality control safeguards and testing:
 - Solid waste management facility authorization from NYSDEC for the construction and operation of the MRF or C&D processing facility
 - Beneficial Use Determination (BUD) for the wood fuel product
 - QA/QC procedures for procuring, inspecting, sampling and testing Clean MRF Fuel as noted in the Biomass Power Guide

Adulterated Biomass

Adulterated biomass includes:

- all types of biomass that do not fall within the categories of eligible unadulterated biomass, such as paper, paperboard boxes, textiles, yard waste and leaves, non-recyclable wood (e.g. plywood and particle board);
- agricultural by-products such as leather and offal and food processing residues;
- other adulterated wood wastes and mixed adulterated and clean wood wastes

For biomass recovered from municipal mixed-waste streams or other adulterated biomass a primary conversion step to liquid or gaseous fuels is required. Power generation facilities that choose to use these types of biomass must demonstrate that emissions from electric energy production from the use of the adulterated feedstocks is equal to or less than the emissions for the process using unadulterated biomass feedstocks. This is only possible if the primary conversion step produces a clean gaseous or liquid fuel for the power conversion system as described in the Biomass Power Guide.²

Co-firing eligible and ineligible resources

Projects that plan to co-fire unadulterated biomass with fossil fuels or other ineligible fuels have additional measurement and reporting requirements to ensure that only the electricity generated from eligible biomass is counted in the CES program. This requires separate feed and measurement systems for each fuel stream plus regular sampling and analysis of fuels to ensure that the reported eligible generation is based on an accurate measurement of heat input for each fuel stream to the boiler or other conversion system.

² <http://www.nyserda.ny.gov/-/media/Files/EDPPP/Energy-and-Environmental-Markets/RPS/RPS-Documents/NYS-RPS-biomass-guidebook.pdf>

ADDITIONAL ELIGIBILITY REQUIREMENTS

1. Retail Sale Requirement

For electricity to be eligible for Tier 1 RECs, it must be demonstrated to the satisfaction of the Commission or its designee that the electrical output of the eligible generation facility commencing operation after January 1, 2015, either originated in New York State or was contractually delivered into New York State, and was sold to consumers in New York State in a retail sale.

2. Locational/Delivery Requirement

For electricity to be eligible, it must be demonstrated to the satisfaction of the Commission or its designee that the electrical output of the generation facility was 1) scheduled into a market administered by the New York Independent System Operator, Inc. (NYISO) for end-use in New York State; or 2) delivered through a wholesale meter under the control of a utility, public authority or municipal electric company such that it can be measured, and such that consumption within New York State can be tracked and verified by such entity or by the NYISO; or 3) delivered through a facility dedicated generation meter, which shall be approved by and subject to independent verification by the DPS or its designee, to a customer in New York State whose electricity was obtained through the NYISO/utility system. For any facility seeking to satisfy the electricity delivery requirement through options 2 or 3 above, all costs associated with measurement, tracking, and verification, to the satisfaction of DPS Staff or its designee, and for participation in NYGATS must and will be borne by the facility owner/developer.

Out-of-state intermittent renewable generators that participate in Tier 1 solicitations may sell and transmit energy as it is generated into the spot market of the control area of its location without simultaneous transmission into the New York Control Area, so long as an equal quantity of energy is transmitted out of the affected spot market into the New York Control Area for end-use during the same hour as the renewable generation is produced (hourly matching). Contractual deliveries associated with the out-of-state resource shall be recognized in each hour as the lesser of actual hourly metered energy production by the renewable generator or actual hourly energy delivered to the electric energy purchaser in the New York Control Area for end-use. In addition, if the control area of origin has an attributes accounting and tracking system or an environmental disclosure program, it is required that such system and/or program recognize hourly matched transactions without double counting the attributes in any jurisdiction.

3. Bilateral Sales

Bilateral sales for electricity associated with the electricity produced by an eligible facility are permissible provided that the seller of electricity from an eligible facility can demonstrate that the purchaser of the electricity is a NYS Load Serving Entity (LSE), or one or more NYS end-users.

4. Net Metering

Eligible generation resources at sites within new York State commencing operation after January 1, 2015 that are "behind-the-meter" generation resources qualify for Tier 1 procurements and the electricity they produce may be consumed by customers behind-the-meter, subject to the measurement, verification and tracking provisions set forth in section 2 numeral 3) noted above. Projects that use a net-metering regime are eligible for both Tier 1 and net metering opportunities until such time that the Commission may change that dual eligibility requirement in a subsequent order.