

# DAR-12 / “Sustainably Harvested” Determination for Purposes of “Eligible Biomass,” Part 242

New York State Department of Environmental Conservation

## DEC Program Policy

**Issuing Authority:** David J. Shaw



**Title:** Director, Division of Air Resources

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**I. Summary:** This document establishes guidelines for determinations by the New York State Department of Environmental Conservation (Department) regarding whether particular sources of forest-based woody biomass, and unadulterated wood and wood residues, are considered to be “sustainably harvested,” for purposes of being considered “eligible biomass” under the CO<sub>2</sub> Budget Trading Program, 6 NYCRR Part 242 (“Part 242”).

**II. Policy:** For purposes of the Part 242 “eligible biomass” determination only, the Department considers a given fuel source to be “sustainably harvested” if it meets the criteria established in this guidance document. In order for the Department to determine that a given fuel source is “sustainably harvested” under Part 242, the Authorized Account Representative (AAR) of a CO<sub>2</sub> budget unit must provide sufficient documentation to the Department to allow the Department to perform an evaluation based on these criteria. The documentation should demonstrate that:

1. The biomass is obtained from land that has a plan and/or certification of a type described below (the “Certification Criterion”);  
  
and
2. Land(s) will remain in a forested state for a time period sufficient to re-sequester the carbon dioxide (CO<sub>2</sub>) released through the combustion of the biomass, as described below (the “Carbon Re-Sequestration Criterion”).

- 1) Certification Criterion: In order to demonstrate to the Department that a given fuel source satisfies the Certification Criterion, the AAR of a CO<sub>2</sub> budget unit must provide sufficient documentation to the Department. The documentation should demonstrate that the biomass is obtained from land that has:

(a) a United States Department of Agriculture (USDA) Forest Service Forest Stewardship Plan in place, and a harvest plan. The harvest plan must be approved by a forester<sup>1</sup> prior

<sup>1</sup> A forester may be defined as an individual who has graduated from a school of forestry in a curriculum of forest

to harvest, and be based upon the New York State Renewable Portfolio Standard (RPS) approved template<sup>2</sup> and recommended Best Management Practices (BMPs);<sup>3</sup> or

(b) been issued a Certificate of Approval pursuant to Section 480-A of the Real Property Tax Law (RPTL); or

(c) been certified by a Department-approved non-governmental forest certification body, such as Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI) or American Tree Farm (ATF).

2) Carbon Re-sequestration Criterion: The Carbon Re-sequestration Criterion may be demonstrated via a legally binding permanent conservation easement, or some other Department-approved land-use instrument, that documents that forest-based, woody biomass and unadulterated wood and wood residues are from forest land that will be maintained in a forested state for:

(a) A time period, as supported by a demonstration to the Department, that is sufficient to re-sequester the CO<sub>2</sub> that was released through the combustion of the biomass. For purposes of making this demonstration to the Department, the AAR may take into account forest lands that are not specifically included in the harvest of the biomass, provided such lands meet the Certification Criterion; or

(b) 100 years, with no additional demonstration to the Department.<sup>4</sup>

In determining whether a particular fuel source is “sustainably harvested,” the Department will consider all relevant scientific and technical information, including application of the Certification Criterion and the Carbon Re-sequestration Criterion. In all instances, the Department will make individual determinations regarding “sustainably harvested” on a case-by-case basis, and will consider whether there are adequate assurances of an appropriate level of carbon re-sequestration. The “sustainably harvested” determination, in accordance with this guidance, is part of the Department’s process for determining whether a particular fuel source is “eligible biomass” under Part 242.

For unadulterated wood and wood residues, the Department will apply the same criteria in order to determine whether a particular fuel source is “sustainably harvested.” That is, unadulterated mill residue wood and unadulterated construction and demolition (C&D) waste will generally be considered “sustainably harvested” if the parent timber biomass is harvested from forest lands that meet the Certification Criterion and the Carbon Re-sequestration Criterion.

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management accredited by the Society of American Foresters, or who possesses qualifications for the practice of forestry essentially equivalent to those possessed by a graduate of a school of forestry in a curriculum of forest management by the Society of American Foresters.

<sup>2</sup> New York State Renewable Portfolio Standard Biomass Guidebook, Appendix A: Harvest Plan Template, May 2006

<sup>3</sup> Harvest plans will incorporate, where appropriate, the New York State’s Forestry BMPs for Soil and Water Quality and any future biomass harvest guidelines developed for New York State.

<sup>4</sup> This one hundred year time period is based upon average estimates of carbon stocks as a function of stand age in the Northeast. [Smith, J.E., Heath, L.S., Skog, K.E., and Birdsey, R.A. 2006. *Methods for calculating forest ecosystem and harvested carbon with standard estimates for forest types of the United States*. Gen. Tech. Rep. NE-343. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station.]

**III. Purpose and Background:** Units regulated pursuant to Part 242 may deduct, as a compliance mechanism, the CO<sub>2</sub> emissions attributable to the burning of “eligible biomass” from their total CO<sub>2</sub> allowance obligation. 6 NYCRR § 242-6.5(b)(1). Provided certain conditions are met, CO<sub>2</sub> emissions from the burning of biomass may be offset through the re-sequestration of carbon through re-growth of the forest.

Sustainable harvesting, as outlined in the Certification Criterion sub-section of this policy, promotes sound forest management, but does not guarantee that the harvested land will remain in a forested condition. Thus, the Carbon Re-sequestration Criterion is a necessary requirement to avoid forest land conversion and to ensure that the forest land will remain in a forested state for a time period sufficient to restore the carbon lost through combustion.

The “eligible biomass” definition in 6 NYCRR § 242-1.2(b)(43) (below) requires that biomass be sustainably harvested and available on a renewable or recurring basis. This definition also states that the term “sustainably harvested” will be determined by the Department.

“Eligible biomass includes sustainably harvested woody and herbaceous fuel sources that are available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, unadulterated wood and wood residues, animal wastes, other clean organic wastes not mixed with other solid wastes, and biogas, derived from such fuel sources. Liquid biofuels do not qualify as eligible biomass. Sustainably harvested will be determined by the department.”

This document establishes the criteria by which the forest-based, woody biomass and unadulterated wood and wood residues components of this “eligible biomass” definition in Part 242 will be evaluated, in order to determine whether they are “sustainably harvested.” Guidance regarding the Department’s determination of “sustainably harvested” for the other fuel sources (dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, animal wastes, other clean organic wastes not mixed with other solid wastes, and biogas, derived from such fuel sources) is still under development. Additional guidance regarding the Department’s determination of “sustainably harvested” for the other components of the Part 242 “eligible biomass” definition may be included in future revisions to this document. The Department intends to continually monitor the science regarding the burning of biomass and carbon re-sequestration, and review this policy as appropriate, in order to make any necessary revisions in the future.

Pursuant to Section 242-8.7, the AAR of CO<sub>2</sub> budget units that co-fire eligible biomass must submit quarterly reports to the appropriate Regional Air Pollution Control Engineer and the Bureau of Quality Assurance within the Department’s Division of Air Resources documenting biomass usage. Use of this document for review of these submissions by the Department will help to ensure consistent determinations regarding whether particular forest-based, woody biomass and unadulterated wood and wood residues are considered to be “eligible biomass” pursuant to Part 242.

The Department’s determination regarding “sustainably harvested,” as contemplated in this guidance document, is limited in application to “eligible biomass” determinations under Part 242. The purpose of Part 242 is to reduce CO<sub>2</sub> emissions from power plants; it is not to favor the use of any particular fuel or source type. Thus, fuels that are considered to be “eligible biomass” for other State purposes, such as under the RPS program, may or may not be “eligible biomass” for purposes of Part 242.

**IV. Responsibility:** The Division of Air Resources, in consultation with the Office of Climate Change and the Division of Lands and Forests, shall have primary responsibility for ensuring that this policy remains up-to-date and for providing any additional interpretation that may be needed. The Regional Air Pollution Control Engineers/Regional Offices, in consultation with the Bureau of Stationary Sources, the Office of Climate Change, and the Division of Lands and Forests, will be responsible for implementing this policy through “sustainably harvested” determinations in particular instances. The Division of Air Resources, in consultation with the Office of Climate Change and the Division of Lands and Forests, is responsible for the procedures described in this guidance document.

**V. Procedure:** In June 2009, the Department sent a notification letter to Part 242 CO<sub>2</sub> AARs outlining the process whereby the AAR shall report its burning of biomass to the Department, and the requisite Departmental determination regarding whether such biomass constitutes “eligible biomass” under Part 242 (see attached). The AAR of a CO<sub>2</sub> budget unit that co-fires biomass as a compliance mechanism must submit a detailed quarterly report to the Department in accordance with 6 NYCRR 242-8.7. The Department will review the quarterly report(s), along with any other documentation that the AAR submits, in accordance with Part 242 and this guidance document. Based on this review, the Department will determine, in accordance with this guidance document, whether the fuel combusted in the budget unit and reported to the Department is considered to be “sustainably harvested.” The Department must determine that such fuel is in fact “eligible biomass” under Part 242 before it will deduct the CO<sub>2</sub> emissions attributable to the burning of that fuel.

As outlined above, the Department will generally apply the Certification Criterion and the Carbon Re-sequestration Criterion in order to determine whether a particular fuel source is “sustainably harvested” and, in turn, “eligible biomass” pursuant to Part 242. The AAR of a CO<sub>2</sub> budget unit must submit sufficient documentation to the Department to allow for an evaluation based on these criteria. Any documentation regarding “eligible biomass,” including any harvest plans, must be retained and made available at the facility for at least five years, for periodic inspections and auditing of harvesting operations by state authorities or their agents.

The Department may subsequently determine, pursuant to an audit or otherwise, that biomass previously classified as “eligible biomass” has not been “sustainably harvested” from forest lands in accordance with this guidance document. In that situation, the Department may revoke a prior determination that the biomass is “eligible biomass” under Part 242, thereby negating any deduction of CO<sub>2</sub> emissions attributable to the burning of that biomass from the amount of CO<sub>2</sub> allowances needed for compliance with Part 242.

**VI. Related References:** Title 6 NYCRR Part 242, CO<sub>2</sub> Budget Trading Program

New York State Renewable Portfolio Standard Biomass Guidebook

Schlamadinger B. and Marland G. 1999. Net effect of forest harvest on CO<sub>2</sub> emissions to the atmosphere: a sensitivity analysis on the influence of time. *Tellus* 51B, 314-325.