

**Madison County Land Use Ordinance  
Biomass Facility  
DRAFT 5 9/14/23  
Land Use Ordinance Amendments**

**[Chapter 2 Definitions]**

**Biomass Facility Definition**

A facility that converts biomass sources into value-added products for public or private use. Biomass includes, but is not limited to, wood and wood processing waste, wood pellets, agricultural crops, and waste materials, biogenic materials in municipal solid waste, animal manure, and human sewage.

**[Chapter 3 Establishment of Districts]**

**Large Biomass Facility Land Use Districts: Special Use in [I] Industrial**

**Small or Temporary Biomass Facility Land Use Districts: Special Use in [AO] Agricultural-Open Space; [RA] Residential Agriculture; [C] Commercial [RB] Retail Business**

**[Chapter 8 Special Requirements]**

**8.11 Large Biomass Facility**

The development of a Large Biomass Facility shall go before the Board of Adjustment for a special use permit and shall conform to all applicable standards. Any property used for a Large Biomass Facility shall also comply with the following standards:

**8.11.1 Special Use Standards**

**8.11.1.1. Compatibility:** The proposed use must be compatible with the surrounding area and not have a negative impact on the surrounding properties or the community. It should not create excessive noise, traffic congestion, or other adverse effects that could disrupt the neighborhood.

**8.11.1.2 Public Health and Safety:** The proposed use must meet health and safety standards. This can include compliance with fire codes, building codes, and other regulations related to public health and safety.

**8.11.1.3 Environmental Impact:** The proposed use shall not have an adverse impact on the environment. This may involve considerations such as stormwater management, erosion control, slope stability, natural resource conservation, energy consumption, and emissions discharged from the proposed use.

**8.11.1.4 Traffic and Parking:** The proposed use should not significantly increase traffic congestion or parking demands beyond what the infrastructure can accommodate. Adequate parking spaces and access points should be provided to ensure safe and efficient circulation of vehicles.

**8.11.1.5 Neighborhood Impact:** The proposed use should not disrupt the rural character or quality of the surrounding neighborhood. Factors such as aesthetics, scale, design, and landscaping may be considered to ensure the proposed use blends well with the existing built environment.

**8.11.2 Purpose.** The purpose of this section is to establish a set of special regulations applicable exclusively to Large Biomass Facilities. These regulations are in addition to all other provisions of this ordinance. In adopting these standards, Madison County finds that Large Biomass Facilities have the potential to be incompatible with surrounding residential uses, thereby having the potential for a deleterious effect on adjacent residents. Special regulations for Large Biomass Facilities are necessary to ensure they will be compatible with surrounding uses and will not act to harm or alter the area they are located in.

**8.11.3 Permit** Any person, firm, or corporation wanting to construct or expand a Large Biomass Facility shall first submit an application and site plan to the Madison County Zoning Office. An application will not be complete until it contains all the required and requested information and is certified complete by the Zoning Administrator in writing to the applicant, notifying them that the application has been forwarded to the Board of Adjustment

#### **8.11.4 Submittal Requirements**

**8.11.4.1 A narrative** describing the proposed Large Biomass Facility, including an overview of the project;

**8.11.4.2 A site plan** showing the proposed location and dimensions of all existing and proposed structures, screening, fencing, property lines, access roads, turnout locations, ancillary equipment, transmission lines, and the location of any residence within 100 feet of the perimeter of the facility;

**8.11.4.3 Standard drawings** of the Large Biomass Facility system components;

**8.11.4.4 Copies of any lease agreement and easement(s)**;

**8.11.4.5 Evidence** that the electrical utility provider has been informed of the customer's intent to install an interconnected, customer-owned generator (off-grid systems shall be exempt from this requirement);

**8.11.4.6 Other relevant studies, reports, certifications, and approvals** as may be reasonably requested by Madison County to ensure compliance with this Article; such as a Traffic Impact Analysis; Stormwater Management Plan; Grading Plan; Appraisal of Impact of Proposed Use on properties within 100 yards of the proposed use; final approvals of all permits required from environmental regulators; Geotechnical analysis if the site contains slopes in excess of 18%

**8.11.4.7 Decommissioning plans** that describe the anticipated life of the facility, the estimated decommissioning costs in current dollars, and the anticipated manner in which the facility will be decommissioned and the site restored; and

**8.11.4.8 Signature of the property owner(s) and the owner/operator of the facility** (if different than the property owner).

**8.11.5 Minimum Area** The minimum area required to establish a Large Biomass Facility shall be # acres.

**8.11.6 Maximum Area** A maximum of xxxx square feet of gross floor area shall be permitted.

**8.11.7 Hours of Operation** The hours of operation allowed shall be compatible with the land uses adjacent to the facility. In no case, however, shall such use that adjoins residentially used or zoned property conduct business between the hours of 10 pm and 7 am.

**8.11.8 Landscaping Buffers** The facility and area associated with the use shall be screened from adjoining properties by a buffer strip of a minimum of 150 feet. The planting materials shall comply with the requirements in the definition of a buffer strip.

**8.11.9 Screening** Facilities shall be enclosed by a sight-obstructing screen of at least 6 feet in height adjacent to public roads and 8 feet in height adjacent to properties of a residential, educational, or institutional nature. All such screens must be maintained in a sound and stable manner for the life of the operation. If state or federal requirements for screening are more stringent, such requirements shall be applicable.

**8.11.10 Open Space Requirements** A minimum of 15 percent of the gross site area shall be landscaped open space.

**8.11.11 Use Separation** Two hundred feet minimum from any property line; Four hundred feet minimum from any residence.

**8.11.12 Noise** All Large Biomass Facilities shall adhere to the Madison County Noise Ordinance. Additionally, Equipment-producing noise or sound up to 70 decibels shall be located no closer than 1000 feet to the nearest residence.

**8.11.13 Disturbances** The facility shall meet all requirements of the State of North Carolina regarding noise, vibration, glare, fumes, odors, or electrical interference beyond what normally occurs in the zoning district in which it is located.

**8.11.14 Structural Requirements**

**8.11.14.1 Compliance with Building Code:** The facility shall meet all requirements of the North Carolina State Building Code.

**8.11.14.2 Electric Code:** All components must comply with the current edition of the National Electric Code and be UL-listed (or equivalent).

**8.11.14.3 Underground Wiring:** Any electric wiring shall be located underground, except where wiring is brought together for interconnection to system components and/or the local utility power grid.

**8.11.15 Parking** Large Biomass Facilities shall comply with the parking requirements of the Madison County Land Use Ordinance and the maximum occupancy according to the North Carolina State Building Code. Parking surfaces are not required to be paved. The Zoning Administrator should not grant the permit unless it is determined the parking generated by the facility can be accommodated without undue disruption or interference with the normal flow of traffic or with the rights of adjacent and surrounding property owners.

**8.11.16 Access** Access to the facility shall be by way of a collector or higher classified road and shall be controlled with gates, chains, fences, ditches, and/or vegetation to prevent unregulated access.

**8.11.17 Dust** All unpaved areas shall be maintained in a manner that prevents dust from leaving the property.

**8.11.18 Signage** No signage shall be permitted on the perimeter fence, with the exception of one (1) sign not to exceed 32 square feet that displays the name, address, and emergency contact information of the facility as well as appropriate warning signs.

**8.11.19 Permit Requirements** The facility shall obtain all applicable state and federal permits. The facility must comply with all requirements as set forth by the North Carolina Division of Environmental Quality. It must be in compliance with any approved Environmental Protection Plan for the State of North Carolina and/or Madison County.

**8.11.20 Disposal of Toxic/Hazardous Matter** Disposal of toxic/hazardous matter at any Biomass Facility shall be expressly forbidden.

#### **8.11.21 Violation of Special Use Permit or Section 8.11**

In the event of a violation of a special use permit or Section 8.11 for a Biomass Energy Facility, the following actions and procedures shall be followed:

**8.11.21.1 Initial Warning:** If it is determined that the conditions and agreements specified in the special use permit have not been fulfilled or there is a violation of Section 8.11, the zoning administrator will issue a warning. The permit holder will have ten (10) days to bring their operations into compliance with all permit and ordinance requirements.

**8.11.21.2 Subsequent Violations:** In case of any subsequent violations, the County will issue a notice of violation indicating non-compliance with the permit or ordinance.

**8.11.21.3 Appeal Process:** The permit holder has the right to appeal the notice of violation to the Board of Adjustment, following the procedures outlined in this ordinance.

**8.11.21.4. Termination of Special Use Permit:** If a notice of violation leads to the termination of the special use permit, the permit may only be reinstated through the following processes:

**a. Public Hearing:** A public hearing will be held before the Board of Adjustment to reconsider the permit. During this hearing, the notice of violation will be reviewed and evaluated.

**b. Reversal or New Application:** If the notice of violation is reversed during the

public hearing, the original special use permit will be reinstated. Alternatively, if the notice is affirmed or not appealed, a new special use permit application must be submitted and approved by the Board of Adjustment.

Please note that these procedures are applicable unless specifically stated otherwise in this ordinance.

Draft [5] 9/14/23