**216B.2424 BIOMASS POWER MANDATE.**

Subdivision 1. **Farm-grown closed-loop biomass.** (a) For the purposes of this section, "farm-grown closed-loop biomass" means herbaceous crops, trees, agricultural waste, and aquatic plant matter that is used to generate electricity, but does not include mixed municipal solid waste, as defined in section 115A.03, and that:

(1) is intentionally cultivated, harvested, and prepared for use, in whole or in part, as a fuel for the generation of electricity;

(2) when combusted, releases an amount of carbon dioxide that is less than or approximately equal to the carbon dioxide absorbed by the biomass fuel during its growing cycle; and

(3) is fired in a new or substantially retrofitted electric generating facility that is:

(i) located within 400 miles of the site of the biomass production; and

(ii) designed to use biomass to meet at least 75 percent of its fuel requirements.

(b) The legislature finds that the negative environmental impacts within 400 miles of the facility resulting from transporting and combusting the biomass are offset in that region by the environmental benefits to air, soil, and water of the biomass production.

(c) Among the biomass fuel sources that meet the requirements of paragraph (a), clauses (1) and (2), are poplar, aspen, willow, switch grass, sorghum, alfalfa, cultivated prairie grass, and sustainably managed woody biomass.

(d) For the purpose of this section, "sustainably managed woody biomass" means:

(1) brush, trees, and other biomass harvested from within designated utility, railroad, and road rights-of-way;

(2) upland and lowland brush harvested from lands incorporated into brushland habitat management activities of the Minnesota Department of Natural Resources;

(3) upland and lowland brush harvested from lands managed in accordance with Minnesota Department of Natural Resources "Best Management Practices for Managing Brushlands";

(4) logging slash or waste wood that is created by harvest, by precommercial timber stand improvement to meet silvicultural objectives, or by fire, disease, or insect control treatments, and that is managed in compliance with the Minnesota Forest Resources Council's "Sustaining Minnesota Forest Resources: Voluntary Site-Level Forest Management Guidelines for Landowners, Loggers and Resource Managers" as modified by the requirement of this subdivision; and

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(5) trees or parts of trees that do not meet the utilization standards for pulpwood, posts, bolts, or sawtimber as described in the Minnesota Department of Natural Resources Division of Forestry Timber Sales Manual, 1998, as amended as of May 1, 2005, and the Minnesota Department of Natural Resources Timber Scaling Manual, 1981, as amended as of May 1, 2005, except as provided in paragraph (a), clause (1), and this paragraph, clauses (1) to (3).

Subd. 1a. **Municipal waste-to-energy project.** (a) This subdivision applies only to a biomass project owned or controlled, directly or indirectly, by two municipal utilities as described in subdivision 5a, paragraph (b).

(b) Woody biomass from state-owned land must be harvested in compliance with an adopted management plan and a program of ecologically based third-party certification.

(c) The project must prepare a fuel plan on an annual basis after commercial operation of the project as described in the power contract between the project and the public utility, and must also prepare annually certificates reflecting the types of fuel used in the preceding year by the project, as described in the power contract. The fuel plans and certificates shall also be filed with the Minnesota Department of Natural Resources and the Minnesota Department of Commerce within 30 days after being provided to the public utility, as provided by the power contract. Any person who believes the fuel plans, as amended, and certificates show that the project does not or will not comply with the fuel requirements of this subdivision may file a petition with the commission seeking such a determination.

(d) The wood procurement process must utilize third-party audit certification systems to verify that applicable best management practices were utilized in the procurement of the sustainably managed biomass. If there is a failure to so verify in any two consecutive years during the original contract term, the farm-grown closed-loop biomass requirements of subdivision 2 must be increased to 50 percent for the remaining contract term period; however, if in two consecutive subsequent years after the increase has been implemented, it is verified that the conditions in this subdivision have been met, then for the remaining original contract term the closed-loop biomass mandate reverts to 25 percent. If there is a subsequent failure to verify in a year after the first failure and implementation of the 50 percent requirement, then the closed-loop percentage shall remain at 50 percent for each remaining year of the contract term.

(e) In the closed-loop plantation, no transgenic plants may be used.

(f) No wood may be harvested from any lands identified by the final or preliminary Minnesota County Biological Survey as having statewide significance as native plant communities, large populations or concentrations of rare species, or critical animal habitat.

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(g) A wood procurement plan must be prepared every five years and public meetings must be held and written comments taken on the plan and documentation must be provided on why or why not the public inputs were used.

(h) Guidelines or best management practices for sustainably managed woody biomass must be adopted by:

(1) the Minnesota Department of Natural Resources for managing and maintaining brushland and open land habitat on public and private lands, including, but not limited to, provisions of sections 84.941, 84.942, and 97A.125; and

(2) the Minnesota Forest Resources Council for logging slash, using the most recent available scientific information regarding the removal of woody biomass from forest lands, to sustain the management of forest resources as defined by section 89.001, subdivisions 8 and 9, with particular attention to soil productivity, biological diversity as defined by section 89A.01, subdivision 3, and wildlife habitat.

These guidelines must be completed by July 1, 2007, and the process of developing them must incorporate public notification and comment.

(i) The University of Minnesota Initiative for Renewable Energy and the Environment is encouraged to solicit and fund high-quality research projects to develop and consolidate scientific information regarding the removal of woody biomass from forest and brush lands, with particular attention to the environmental impacts on soil productivity, biological diversity, and sequestration of carbon. The results of this research shall be made available to the public.

(j) The two utilities owning or controlling, directly or indirectly, the biomass project described in subdivision 5a, paragraph (b), shall fund or obtain funding from nonstate sources of up to $150,000 by April 1, 2006, to complete the guidelines or best management practices described in paragraph (h). The expenditures to be funded under this paragraph do not include any of the expenditures to be funded under paragraph (i).

Subd. 2. **Interim exemption.** (a) A biomass project proposing to use, as its primary fuel over the life of the project, short-rotation woody crops, may use as an interim fuel agricultural waste and other biomass which is not farm-grown closed-loop biomass for up to six years after the project's electric generating facility becomes operational; provided, the project developer demonstrates the project will use the designated short-rotation woody crops as its primary fuel after the interim period and provided the location of the interim fuel production meets the requirements of subdivision 1, paragraph (a), clause (3).

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(b) A biomass project proposing to use, as its primary fuel over the life of the project, short-rotation woody crops, may use as an interim fuel agricultural waste and other biomass which is not farm-grown closed-loop biomass for up to three years after the project's electric generating facility becomes operational; provided, the project developer demonstrates the project will use the designated short-rotation woody crops as its primary fuel after the interim period.

(c) A biomass project that uses an interim fuel under the terms of paragraph (b) may, in addition, use an interim fuel under the terms of paragraph (a) for six years less the number of years that an interim fuel was used under paragraph (b).

(d) A project developer proposing to use an exempt interim fuel under paragraphs (a) and (b) must demonstrate to the public utility that the project will have an adequate supply of short-rotation woody crops which meet the requirements of subdivision 1 to fuel the project after the interim period.

(e) If a biomass project using an interim fuel under this subdivision is or becomes owned or controlled, directly or indirectly, by two municipal utilities as described in subdivision 5a, paragraph (b), the project is deemed to comply with the requirement under this subdivision to use as its primary fuel farm-grown closed-loop biomass if farm-grown closed-loop biomass comprises no less than 25 percent of the fuel used over the life of the project. For purposes of this subdivision, "life of the project" means 20 years from the date the project becomes operational or the term of the applicable power purchase agreement between the project owner and the public utility, whichever is longer.

Subd. 3. **Fuel exemption.** Over the duration of the contract of a biomass power facility selected to satisfy the mandate in subdivision 5, fuel sources that are not biomass may be used to satisfy up to 25 percent of the fuel requirements of a biomass power facility selected to satisfy the biomass power mandate in subdivision 5, except that agricultural crop wastes, such as oat hulls, may be used to satisfy more than 25 percent of the fuel requirements of a power facility selected to satisfy the biomass power mandate in subdivision 5 if the wastes are co-fired with the fuel authorized for the facility. A biomass power facility selected to satisfy the mandate in subdivision 5 also may use fuel sources that are not biomass during any period when biomass fuel sources are not reasonably available to the facility due to any circumstances constituting an act of God. Fuel sources that are not biomass used during such a period of biomass fuel source unavailability shall not be counted toward the 25 percent exemption provided in this subdivision. For purposes of this subdivision, "act of God" means any natural disaster or other natural phenomenon of an exceptional, inevitable, or irresistible character, including, but not limited to, flood, fire, drought, earthquake, and crop failure resulting from climatic conditions, infestation, or disease.

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 4. **Financial viability.** A biomass project developer must demonstrate to the public utility evidence of sufficient financial viability necessary for the construction and operation of the biomass project.

Subd. 5. **Mandate.** (a) A public utility, as defined in section 216B.02, subdivision 4, that operates a nuclear-powered electric generating plant within this state must construct and operate, purchase, or contract to construct and operate (1) by December 31, 1998, 50 megawatts of electric energy installed capacity generated by farm-grown closed-loop biomass scheduled to be operational by December 31, 2001; and (2) by December 31, 1998, an additional 75 megawatts of installed capacity so generated scheduled to be operational by December 31, 2002.

(b) Of the 125 megawatts of biomass electricity installed capacity required under this subdivision, no more than 55 megawatts of this capacity may be provided by a facility that uses poultry litter as its primary fuel source and any such facility:

(1) need not use biomass that complies with the definition in subdivision 1;

(2) must enter into a contract with the public utility for such capacity, that has an average purchase price per megawatt hour over the life of the contract that is equal to or less than the average purchase price per megawatt hour over the life of the contract in contracts approved by the Public Utilities Commission before April 1, 2000, to satisfy the mandate of this section, and file that contract with the Public Utilities Commission prior to September 1, 2000; and

(3) must schedule such capacity to be operational by December 31, 2002.

(c) Of the total 125 megawatts of biomass electric energy installed capacity required under this section, no more than 75 megawatts may be provided by a single project.

(d) Of the 75 megawatts of biomass electric energy installed capacity required under paragraph (a), clause (2), no more than 33 megawatts of this capacity may be provided by a St. Paul district heating and cooling system cogeneration facility utilizing waste wood as a primary fuel source. The St. Paul district heating and cooling system cogeneration facility need not use biomass that complies with the definition in subdivision 1.

(e) The public utility must accept and consider on an equal basis with other biomass proposals:

(1) a proposal to satisfy the requirements of this section that includes a project that exceeds the megawatt capacity requirements of either paragraph (a), clause (1) or (2), and that proposes to sell the excess capacity to the public utility or to other purchasers; and

(2) a proposal for a new facility to satisfy more than ten but not more than 20 megawatts of the electrical generation requirements by a small business-sponsored independent power

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

producer facility to be located within the northern quarter of the state, which means the area located north of Constitutional Route No. 8 as described in section 161.114, subdivision 2, and that utilizes biomass residue wood, sawdust, bark, chipped wood, or brush to generate electricity. A facility described in this clause is not required to utilize biomass complying with the definition in subdivision 1, but must be under construction by December 31, 2005.

(f) If a public utility files a contract with the commission for electric energy installed capacity that uses poultry litter as its primary fuel source, the commission must do a preliminary review of the contract to determine if it meets the purchase price criteria provided in paragraph (b), clause (2). The commission shall perform its review and advise the parties of its determination within 30 days of filing of such a contract by a public utility. A public utility may submit by September 1, 2000, a revised contract to address the commission's preliminary determination.

(g) The commission shall finally approve, modify, or disapprove no later than July 1, 2001, all contracts submitted by a public utility as of September 1, 2000, to meet the mandate set forth in this subdivision.

(h) If a public utility subject to this section exercises an option to increase the generating capacity of a project in a contract approved by the commission prior to April 25, 2000, to satisfy the mandate in this subdivision, the public utility must notify the commission by September 1, 2000, that it has exercised the option and include in the notice the amount of additional megawatts to be generated under the option exercised. Any review by the commission of the project after exercise of such an option shall be based on the same criteria used to review the existing contract.

(i) A facility specified in this subdivision qualifies for exemption from property taxation under section 272.02, subdivision 45.

Subd. 5a. **Reduction of biomass mandate.** (a) Notwithstanding subdivision 5, the biomass electric energy mandate must be reduced from 125 megawatts to 110 megawatts.

(b) The Public Utilities Commission shall approve a request pending before the commission as of May 15, 2003, for amendments to and assignment of a power purchase agreement with the owner of a facility that uses short-rotation, woody crops as its primary fuel previously approved to satisfy a portion of the biomass mandate if the owner of the project agrees to reduce the size of its project from 50 megawatts to 35 megawatts, while maintaining an average price for energy in nominal dollars measured over the term of the power purchase agreement at or below $104 per megawatt-hour, exclusive of any price adjustments that may take effect subsequent to commission approval of the power purchase agreement, as amended. The commission shall also approve, as necessary, any subsequent assignment or sale of the power purchase agreement or ownership of the project to an entity owned or controlled, directly or indirectly, by two municipal utilities

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

located north of Constitutional Route No. 8, as described in section 161.114, which currently own electric and steam generation facilities using coal as a fuel and which propose to retrofit their existing municipal electrical generating facilities to utilize biomass fuels in order to perform the power purchase agreement.

(c) If the power purchase agreement described in paragraph (b) is assigned to an entity that is, or becomes, owned or controlled, directly or indirectly, by two municipal entities as described in paragraph (b), and the power purchase agreement meets the price requirements of paragraph (b), the commission shall approve any amendments to the power purchase agreement necessary to reflect the changes in project location and ownership and any other amendments made necessary by those changes. The commission shall also specifically find that:

(1) the power purchase agreement complies with and fully satisfies the provisions of this section to the full extent of its 35-megawatt capacity;

(2) all costs incurred by the public utility and all amounts to be paid by the public utility to the project owner under the terms of the power purchase agreement are fully recoverable pursuant to section 216B.1645;

(3) subject to prudency review by the commission, the public utility may recover from its Minnesota retail customers the Minnesota jurisdictional portion of the amounts that may be incurred and paid by the public utility during the full term of the power purchase agreement; and

(4) if the purchase power agreement meets the requirements of this subdivision, it is reasonable and in the public interest.

(d) The commission shall specifically approve recovery by the public utility of any and all Minnesota jurisdictional costs incurred by the public utility to improve, construct, install, or upgrade transmission, distribution, or other electrical facilities owned by the public utility or other persons in order to permit interconnection of the retrofitted biomass-fueled generating facilities or to obtain transmission service for the energy provided by the facilities to the public utility pursuant to section 216B.1645, and shall disapprove any provision in the power purchase agreement that requires the developer or owner of the project to pay the jurisdictional costs or that permit the public utility to terminate the power purchase agreement as a result of the existence of those costs or the public utility's obligation to pay any or all of those costs.

Subd. 6. **Remaining megawatt compliance process.** (a) If there remain megawatts of biomass power generating capacity to fulfill the mandate in subdivision 5 after the commission has taken final action on all contracts filed by September 1, 2000, by a public utility, as amended and assigned, this subdivision governs final compliance with the biomass energy mandate in subdivision 5 subject to the requirements of subdivisions 7 and 8.

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(b) To the extent not inconsistent with this subdivision, the provisions of subdivisions 2, 3, 4, and 5 apply to proposals subject to this subdivision.

(c) A public utility must submit proposals to the commission to complete the biomass mandate. The commission shall require a public utility subject to this section to issue a request for competitive proposals for projects for electric generation utilizing biomass as defined in paragraph (f) of this subdivision to provide the remaining megawatts of the mandate. The commission shall set an expedited schedule for submission of proposals to the utility, selection by the utility of proposals or projects, negotiation of contracts, and review by the commission of the contracts or projects submitted by the utility to the commission.

(d) Notwithstanding the provisions of subdivisions 1 to 5 but subject to the provisions of subdivisions 7 and 8, a new or existing facility proposed under this subdivision that is fueled either by biomass or by co-firing biomass with nonbiomass may satisfy the mandate in this section. Such a facility need not use biomass that complies with the definition in subdivision 1 if it uses biomass as defined in paragraph (f) of this subdivision. Generating capacity produced by co-firing of biomass that is operational as of April 25, 2000, does not meet the requirements of the mandate, except that additional co-firing capacity added at an existing facility after April 25, 2000, may be used to satisfy this mandate. Only the number of megawatts of capacity at a facility which co-fires biomass that are directly attributable to the biomass and that become operational after April 25, 2000, count toward meeting the biomass mandate in this section.

(e) Nothing in this subdivision precludes a facility proposed and approved under this subdivision from using fuel sources that are not biomass in compliance with subdivision 3.

(f) Notwithstanding the provisions of subdivision 1, for proposals subject to this subdivision, "biomass" includes farm-grown closed-loop biomass; agricultural wastes, including animal, poultry, and plant wastes; and waste wood, including chipped wood, bark, brush, residue wood, and sawdust.

(g) Nothing in this subdivision affects in any way contracts entered into as of April 25, 2000, to satisfy the mandate in subdivision 5.

(h) Nothing in this subdivision requires a public utility to retrofit its own power plants for the purpose of co-firing biomass fuel, nor is a utility prohibited from retrofitting its own power plants for the purpose of co-firing biomass fuel to meet the requirements of this subdivision.

Subd. 7. **Effect on existing projects.** The commission may not approve a project proposed after April 25, 2000, which would have an adverse impact on the ability of a project approved before April 25, 2000, to obtain an adequate supply of the fuel source designated for the project.

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 8. **Agricultural biomass requirement.** Of the 125 megawatts mandated in subdivision 5, or 110 megawatts mandated in subdivision 5a, at least 75 megawatts of the generating capacity must be generated by facilities that use agricultural biomass as the principal fuel source. For purposes of this subdivision, agricultural biomass includes only farm-grown closed-loop biomass and agricultural waste, including animal, poultry, and plant wastes. For purposes of this subdivision, "principal fuel source" means a fuel source that satisfies at least 75 percent of the fuel requirements of an electric power generating facility. Nothing in this subdivision is intended to expand the fuel source requirements of subdivision 5.

**History:** *1994 c 641 art 3 s 3; 1995 c 224 s 76; 1996 c 450 s 1; 1998 c 345 s 2; 2000 c 443 s 1-5; 2001 c 7 s 46; 1Sp2001 c 5 art 3 s 13; 2002 c 379 art 1 s 55; 2003 c 127 art 2 s 3; 1Sp2003 c 11 art 2 s 7,16; 2005 c 97 art 5 s 1-6; 1Sp2005 c 1 art 2 s 140; 2006 c 259 art 4 s 4; 2008 c 296 art 1 s 12*

Copyright © 2008 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.