

**SENATE  
STATE OF MINNESOTA  
NINETY-THIRD SESSION**

**S.F. No. 3728**

(SENATE AUTHORS: MCEWEN and Frentz)

DATE  
02/15/2024

D-PG  
11605

Introduction and first reading  
Referred to Environment, Climate, and Legacy

OFFICIAL STATUS

1.1 A bill for an act  
1.2 relating to environment; providing for recovering waste heat from wastewater;  
1.3 amending Minnesota Statutes 2022, sections 116D.02, subdivision 2; 216B.2427,  
1.4 subdivision 1; Minnesota Statutes 2023 Supplement, section 115.03, subdivision  
1.5 1.

1.6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.7 Section 1. Minnesota Statutes 2023 Supplement, section 115.03, subdivision 1, is amended  
1.8 to read:

1.9 Subdivision 1. **Generally.** (a) The commissioner is given and charged with the following  
1.10 powers and duties:

1.11 (1) to administer and enforce all laws relating to the pollution of any of the waters of  
1.12 the state;

1.13 (2) to investigate the extent, character, and effect of the pollution of the waters of this  
1.14 state and to gather data and information necessary or desirable in the administration or  
1.15 enforcement of pollution laws, and to make such classification of the waters of the state as  
1.16 it may deem advisable;

1.17 (3) to establish and alter such reasonable pollution standards for any waters of the state  
1.18 in relation to the public use to which they are or may be put as it shall deem necessary for  
1.19 the purposes of this chapter and, with respect to the pollution of waters of the state, chapter  
1.20 116;

1.21 (4) to encourage waste treatment, including advanced waste treatment, instead of stream  
1.22 low-flow augmentation for dilution purposes to control and prevent pollution;

2.1 (5) to adopt, issue, reissue, modify, deny, or revoke, enter into or enforce reasonable  
2.2 orders, permits, variances, standards, rules, schedules of compliance, and stipulation  
2.3 agreements, under such conditions as it may prescribe, in order to prevent, control or abate  
2.4 water pollution, or for the installation or operation of disposal systems or parts thereof, or  
2.5 for other equipment and facilities:

2.6 (i) requiring the discontinuance of the discharge of sewage, industrial waste or other  
2.7 wastes into any waters of the state resulting in pollution in excess of the applicable pollution  
2.8 standard established under this chapter;

2.9 (ii) prohibiting or directing the abatement of any discharge of sewage, industrial waste,  
2.10 or other wastes, into any waters of the state or the deposit thereof or the discharge into any  
2.11 municipal disposal system where the same is likely to get into any waters of the state in  
2.12 violation of this chapter and, with respect to the pollution of waters of the state, chapter  
2.13 116, or standards or rules promulgated or permits issued pursuant thereto, and specifying  
2.14 the schedule of compliance within which such prohibition or abatement must be  
2.15 accomplished;

2.16 (iii) prohibiting the storage of any liquid or solid substance or other pollutant in a manner  
2.17 which does not reasonably assure proper retention against entry into any waters of the state  
2.18 that would be likely to pollute any waters of the state;

2.19 (iv) requiring the construction, installation, maintenance, and operation by any person  
2.20 of any disposal system or any part thereof, or other equipment and facilities, or the  
2.21 reconstruction, alteration, or enlargement of its existing disposal system or any part thereof,  
2.22 or the adoption of other remedial measures to prevent, control or abate any discharge or  
2.23 deposit of sewage, industrial waste or other wastes by any person;

2.24 (v) establishing, and from time to time revising, standards of performance for new sources  
2.25 taking into consideration, among other things, classes, types, sizes, and categories of sources,  
2.26 processes, pollution control technology, cost of achieving such effluent reduction, and any  
2.27 nonwater quality environmental impact and energy requirements. Said standards of  
2.28 performance for new sources shall encompass those standards for the control of the discharge  
2.29 of pollutants which reflect the greatest degree of effluent reduction which the agency  
2.30 determines to be achievable through application of the best available demonstrated control  
2.31 technology, processes, operating methods, or other alternatives, including, where practicable,  
2.32 a standard permitting no discharge of pollutants. New sources shall encompass buildings,  
2.33 structures, facilities, or installations from which there is or may be the discharge of pollutants,  
2.34 the construction of which is commenced after the publication by the agency of proposed

3.1 rules prescribing a standard of performance which will be applicable to such source.

3.2 Notwithstanding any other provision of the law of this state, any point source the construction  
3.3 of which is commenced after May 20, 1973, and which is so constructed as to meet all  
3.4 applicable standards of performance for new sources shall, consistent with and subject to  
3.5 the provisions of section 306(d) of the Amendments of 1972 to the Federal Water Pollution  
3.6 Control Act, not be subject to any more stringent standard of performance for new sources  
3.7 during a ten-year period beginning on the date of completion of such construction or during  
3.8 the period of depreciation or amortization of such facility for the purposes of section 167  
3.9 or 169, or both, of the Federal Internal Revenue Code of 1954, whichever period ends first.  
3.10 Construction shall encompass any placement, assembly, or installation of facilities or  
3.11 equipment, including contractual obligations to purchase such facilities or equipment, at  
3.12 the premises where such equipment will be used, including preparation work at such  
3.13 premises;

3.14 (vi) establishing and revising pretreatment standards to prevent or abate the discharge  
3.15 of any pollutant into any publicly owned disposal system, which pollutant interferes with,  
3.16 passes through, or otherwise is incompatible with such disposal system;

3.17 (vii) requiring the owner or operator of any disposal system or any point source to  
3.18 establish and maintain such records, make such reports, install, use, and maintain such  
3.19 monitoring equipment or methods, including where appropriate biological monitoring  
3.20 methods, sample such effluents in accordance with such methods, at such locations, at such  
3.21 intervals, and in such a manner as the agency shall prescribe, and providing such other  
3.22 information as the agency may reasonably require;

3.23 (viii) notwithstanding any other provision of this chapter, and with respect to the pollution  
3.24 of waters of the state, chapter 116, requiring the achievement of more stringent limitations  
3.25 than otherwise imposed by effluent limitations in order to meet any applicable water quality  
3.26 standard by establishing new effluent limitations, based upon section 115.01, subdivision  
3.27 13, clause (b), including alternative effluent control strategies for any point source or group  
3.28 of point sources to insure the integrity of water quality classifications, whenever the agency  
3.29 determines that discharges of pollutants from such point source or sources, with the  
3.30 application of effluent limitations required to comply with any standard of best available  
3.31 technology, would interfere with the attainment or maintenance of the water quality  
3.32 classification in a specific portion of the waters of the state. Prior to establishment of any  
3.33 such effluent limitation, the agency shall hold a public hearing to determine the relationship  
3.34 of the economic and social costs of achieving such limitation or limitations, including any  
3.35 economic or social dislocation in the affected community or communities, to the social and

4.1 economic benefits to be obtained and to determine whether or not such effluent limitation  
4.2 can be implemented with available technology or other alternative control strategies. If a  
4.3 person affected by such limitation demonstrates at such hearing that, whether or not such  
4.4 technology or other alternative control strategies are available, there is no reasonable  
4.5 relationship between the economic and social costs and the benefits to be obtained, such  
4.6 limitation shall not become effective and shall be adjusted as it applies to such person;

4.7 (ix) modifying, in its discretion, any requirement or limitation based upon best available  
4.8 technology with respect to any point source for which a permit application is filed after July  
4.9 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the  
4.10 agency that such modified requirements will represent the maximum use of technology  
4.11 within the economic capability of the owner or operator and will result in reasonable further  
4.12 progress toward the elimination of the discharge of pollutants; and

4.13 (x) requiring that applicants for wastewater discharge permits evaluate in their  
4.14 applications the potential reuses of the discharged wastewater;

4.15 (6) to require to be submitted and to approve plans and specifications for disposal systems  
4.16 or point sources, or any part thereof and to inspect the construction thereof for compliance  
4.17 with the approved plans and specifications thereof;

4.18 (7) to prescribe and alter rules, not inconsistent with law, for the conduct of the agency  
4.19 and other matters within the scope of the powers granted to and imposed upon it by this  
4.20 chapter and, with respect to pollution of waters of the state, in chapter 116, provided that  
4.21 every rule affecting any other department or agency of the state or any person other than a  
4.22 member or employee of the agency shall be filed with the secretary of state;

4.23 (8) to conduct such investigations, issue such notices, public and otherwise, and hold  
4.24 such hearings as are necessary or which it may deem advisable for the discharge of its duties  
4.25 under this chapter and, with respect to the pollution of waters of the state, under chapter  
4.26 116, including, but not limited to, the issuance of permits, and to authorize any member,  
4.27 employee, or agent appointed by it to conduct such investigations or, issue such notices and  
4.28 hold such hearings;

4.29 (9) for the purpose of water pollution control planning by the state and pursuant to the  
4.30 Federal Water Pollution Control Act, as amended, to establish and revise planning areas,  
4.31 adopt plans and programs and continuing planning processes, including, but not limited to,  
4.32 basin plans and areawide waste treatment management plans, and to provide for the  
4.33 implementation of any such plans by means of, including, but not limited to, standards, plan

5.1 elements, procedures for revision, intergovernmental cooperation, residual treatment process  
5.2 waste controls, and needs inventory and ranking for construction of disposal systems;

5.3 (10) to train water pollution control personnel and charge training fees as are necessary  
5.4 to cover the agency's costs. All such fees received must be paid into the state treasury and  
5.5 credited to the Pollution Control Agency training account;

5.6 (11) to provide chloride reduction training and charge training fees as necessary to cover  
5.7 the agency's costs not to exceed \$350. All training fees received must be paid into the state  
5.8 treasury and credited to the Pollution Control Agency training account;

5.9 (12) to impose as additional conditions in permits to publicly owned disposal systems  
5.10 appropriate measures to insure compliance by industrial and other users with any pretreatment  
5.11 standard, including, but not limited to, those related to toxic pollutants, and any system of  
5.12 user charges ratably as is hereby required under state law or said Federal Water Pollution  
5.13 Control Act, as amended, or any regulations or guidelines promulgated thereunder;

5.14 (13) to set a period not to exceed five years for the duration of any national pollutant  
5.15 discharge elimination system permit or not to exceed ten years for any permit issued as a  
5.16 state disposal system permit only;

5.17 (14) to require each governmental subdivision identified as a permittee for a wastewater  
5.18 treatment works to evaluate in every odd-numbered year the condition of its existing system  
5.19 and identify future capital improvements that will be needed to attain or maintain compliance  
5.20 with a national pollutant discharge elimination system or state disposal system permit; ~~and~~

5.21 (15) to train subsurface sewage treatment system personnel, including persons who  
5.22 design, construct, install, inspect, service, and operate subsurface sewage treatment systems,  
5.23 and charge fees as necessary to pay the agency's costs. All fees received must be paid into  
5.24 the state treasury and credited to the agency's training account. Money in the account is  
5.25 appropriated to the agency to pay expenses related to training; and

5.26 (16) to encourage practices that enable the recovery and use of waste heat from  
5.27 wastewater treatment operations, in accordance with the federal Clean Water Act, United  
5.28 States Code, title 33, section 1281(e).

5.29 (b) The information required in paragraph (a), clause (14), must be submitted in every  
5.30 odd-numbered year to the commissioner on a form provided by the commissioner. The  
5.31 commissioner shall provide technical assistance if requested by the governmental subdivision.

5.32 (c) The powers and duties given the agency in this subdivision also apply to permits  
5.33 issued under chapter 114C.

6.1 Sec. 2. Minnesota Statutes 2022, section 116D.02, subdivision 2, is amended to read:

6.2 Subd. 2. **State responsibilities.** In order to carry out the policy set forth in Laws 1973,  
6.3 chapter 412, it is the continuing responsibility of the state government to use all practicable  
6.4 means, consistent with other essential considerations of state policy, to improve and  
6.5 coordinate state plans, functions, programs and resources to the end that the state may:

6.6 (1) fulfill the responsibilities of each generation as trustee of the environment for  
6.7 succeeding generations;

6.8 (2) assure for all people of the state safe, healthful, productive, and aesthetically and  
6.9 culturally pleasing surroundings;

6.10 (3) discourage ecologically unsound aspects of population, economic and technological  
6.11 growth, and develop and implement a policy such that growth occurs only in an  
6.12 environmentally acceptable manner;

6.13 (4) preserve important historic, cultural, and natural aspects of our national heritage,  
6.14 and maintain, wherever practicable, an environment that supports diversity, and variety of  
6.15 individual choice;

6.16 (5) encourage, through education, a better understanding of natural resources management  
6.17 principles that will develop attitudes and styles of living that minimize environmental  
6.18 degradation;

6.19 (6) develop and implement land use and environmental policies, plans, and standards  
6.20 for the state as a whole and for major regions thereof through a coordinated program of  
6.21 planning and land use control;

6.22 (7) define, designate, and protect environmentally sensitive areas;

6.23 (8) establish and maintain statewide environmental information systems sufficient to  
6.24 gauge environmental conditions;

6.25 (9) practice thrift in the use of energy and maximize the use of energy efficient systems  
6.26 for the utilization of producing, distributing, and using energy, including recovering and  
6.27 reusing waste heat, and minimize the environmental impact from energy production and  
6.28 use;

6.29 (10) preserve important existing natural habitats of rare and endangered species of plants,  
6.30 wildlife, and fish, and provide for the wise use of our remaining areas of natural habitation,  
6.31 including necessary protective measures where appropriate;

6.32 (11) reduce wasteful practices which generate solid wastes;

7.1 (12) minimize wasteful and unnecessary depletion of nonrenewable resources;

7.2 (13) conserve natural resources and minimize environmental impact by encouraging  
 7.3 ~~extension of extended product lifetime, by lifetimes~~; reducing ~~the number of unnecessary~~  
 7.4 and wasteful materials practices; and ~~by recycling materials, water, and energy to conserve~~  
 7.5 ~~both materials and energy~~ virgin resources;

7.6 (14) improve management of renewable resources in a manner compatible with  
 7.7 environmental protection;

7.8 (15) provide for reclamation of mined lands and assure that any mining is accomplished  
 7.9 in a manner compatible with environmental protection;

7.10 (16) reduce the deleterious impact on air and water quality from all sources, including  
 7.11 the deleterious environmental impact due to operation of vehicles with internal combustion  
 7.12 engines in urbanized areas;

7.13 (17) minimize noise, particularly in urban areas;

7.14 (18) prohibit, where appropriate, floodplain development in urban and rural areas; and

7.15 (19) encourage advanced waste treatment in abating water pollution, including practices  
 7.16 that enable the recovery and use of waste heat from wastewater treatment operations, in  
 7.17 accordance with the federal Clean Water Act, United States Code, title 33, section 1281(e).

7.18 Sec. 3. Minnesota Statutes 2022, section 216B.2427, subdivision 1, is amended to read:

7.19 Subdivision 1. **Definitions.** (a) For the purposes of this section and section 216B.2428,  
 7.20 the following terms have the meanings given.

7.21 (b) "Biogas" means gas produced by the anaerobic digestion of biomass, gasification of  
 7.22 biomass, or other effective conversion processes.

7.23 (c) "Carbon capture" means the capture of greenhouse gas emissions that would otherwise  
 7.24 be released into the atmosphere.

7.25 (d) "Carbon-free resource" means an electricity generation facility whose operation does  
 7.26 not contribute to statewide greenhouse gas emissions, as defined in section 216H.01,  
 7.27 subdivision 2.

7.28 (e) "District energy" means a heating or cooling system that is solar thermal powered  
 7.29 or that uses groundwater, underground aquifers, raw or treated wastewater, or the constant  
 7.30 temperature of the earth ~~or underground aquifers~~ as a thermal exchange medium to heat or  
 7.31 cool multiple buildings connected through a piping network.

8.1 (f) "Energy efficiency" has the meaning given in section 216B.241, subdivision 1,  
8.2 paragraph (f), but does not include energy conservation investments that the commissioner  
8.3 determines could reasonably be included in a utility's conservation improvement program.

8.4 (g) "Greenhouse gas emissions" means emissions of carbon dioxide, methane, nitrous  
8.5 oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride emitted by  
8.6 anthropogenic sources within Minnesota and from the generation of electricity imported  
8.7 from outside the state and consumed in Minnesota, excluding carbon dioxide that is injected  
8.8 into geological formations to prevent its release to the atmosphere in compliance with  
8.9 applicable laws.

8.10 (h) "Innovative resource" means biogas, renewable natural gas, power-to-hydrogen,  
8.11 power-to-ammonia, carbon capture, strategic electrification, district energy, and energy  
8.12 efficiency.

8.13 (i) "Lifecycle greenhouse gas emissions" means the aggregate greenhouse gas emissions  
8.14 resulting from the production, processing, transmission, and consumption of an energy  
8.15 resource.

8.16 (j) "Lifecycle greenhouse gas emissions intensity" means lifecycle greenhouse gas  
8.17 emissions per unit of energy delivered to an end user.

8.18 (k) "Nonexempt customer" means a utility customer that has not been included in a  
8.19 utility's innovation plan under subdivision 3, paragraph (f).

8.20 (l) "Power-to-ammonia" means the production of ammonia from hydrogen produced  
8.21 via power-to-hydrogen using a process that has a lower lifecycle greenhouse gas intensity  
8.22 than does natural gas produced from conventional geologic sources.

8.23 (m) "Power-to-hydrogen" means the use of electricity generated by a carbon-free resource  
8.24 to produce hydrogen.

8.25 (n) "Renewable energy" has the meaning given in section 216B.2422, subdivision 1.

8.26 (o) "Renewable natural gas" means biogas that has been processed to be interchangeable  
8.27 with, and that has a lower lifecycle greenhouse gas intensity than, natural gas produced  
8.28 from conventional geologic sources.

8.29 (p) "Solar thermal" has the meaning given to qualifying solar thermal project in section  
8.30 216B.2411, subdivision 2, paragraph (d).

8.31 (q) "Strategic electrification" means the installation of electric end-use equipment in an  
8.32 existing building in which natural gas is a primary or back-up fuel source, or in a newly

9.1 constructed building in which a customer receives natural gas service for one or more  
9.2 end-uses, provided that the electric end-use equipment:

9.3 (1) results in a net reduction in statewide greenhouse gas emissions, as defined in section  
9.4 216H.01, subdivision 2, over the life of the equipment when compared to the most efficient  
9.5 commercially available natural gas alternative; and

9.6 (2) is installed and operated in a manner that improves the load factor of the customer's  
9.7 electric utility.

9.8 Strategic electrification does not include investments that the commissioner determines  
9.9 could reasonably be included in the natural gas utility's conservation improvement program  
9.10 under section 216B.241.

9.11 (r) "Total incremental cost" means the calculation of the following components of a  
9.12 utility's innovation plan approved by the commission under subdivision 2:

9.13 (1) the sum of:

9.14 (i) return of and on capital investments for the production, processing, pipeline  
9.15 interconnection, storage, and distribution of innovative resources;

9.16 (ii) incremental operating costs associated with capital investments in infrastructure for  
9.17 the production, processing, pipeline interconnection, storage, and distribution of innovative  
9.18 resources;

9.19 (iii) incremental costs to procure innovative resources from third parties;

9.20 (iv) incremental costs to develop and administer programs; and

9.21 (v) incremental costs for research and development related to innovative resources;

9.22 (2) less the sum of:

9.23 (i) value received by the utility upon the resale of innovative resources or innovative  
9.24 resource by-products, including any environmental credits included with the resale of  
9.25 renewable gaseous fuels or value received by the utility when innovative resources are used  
9.26 as vehicle fuel;

9.27 (ii) cost savings achieved through avoidance of purchases of natural gas produced from  
9.28 conventional geologic sources, including but not limited to avoided commodity purchases  
9.29 and avoided pipeline costs; and

9.30 (iii) other revenues received by the utility that are directly attributable to the utility's  
9.31 implementation of an innovation plan.

- 10.1 (s) "Utility" means a public utility, as defined in section 216B.02, subdivision 4, that
- 10.2 provides natural gas sales or natural gas transportation services to customers in Minnesota.