

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

S.F. No. 2584

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DATE	D-PG	OFFICIAL STATUS
03/06/2023	1351	Introduction and first reading Referred to Transportation
03/09/2023	1481	Withdrawn and re-referred to State and Local Government and Veterans
03/13/2023		Comm report: To pass as amended and re-refer to Environment, Climate, and Legacy

1.1 A bill for an act

1.2 relating to transportation; establishing a standard to reduce the carbon intensity of

1.3 transportation fuels; requiring a report; appropriating money; proposing coding

1.4 for new law in Minnesota Statutes, chapter 239.

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

1.6 Section 1. **[239.7312] CLEAN TRANSPORTATION STANDARD ACT.**

1.7 Subdivision 1. Definitions. (a) For the purposes of this section, the following terms have

1.8 the meanings given.

1.9 (b) "Carbon dioxide equivalent" means the number of metric tons of carbon dioxide

1.10 emissions that have the same global warming potential as one metric ton of another

1.11 greenhouse gas.

1.12 (c) "Carbon intensity" means the quantity of life cycle greenhouse gas emissions

1.13 associated with the fuel pathway and use of a unit of a specific transportation fuel, expressed

1.14 in grams of carbon dioxide equivalent per megajoule of transportation fuel, as calculated

1.15 by the most recent version of Argonne National Laboratory's GREET model adapted to

1.16 Minnesota, as determined by the commissioner.

1.17 (d) "Clean fuel" means a transportation fuel that has a carbon intensity level below the

1.18 clean fuels carbon intensity standard in a given year.

1.19 (e) "Commissioner" means the commissioner of the Pollution Control Agency.

1.20 (f) "Continuous living cover cropping systems" means market-based agricultural systems

1.21 characterized by living plants above ground and living roots in the soil throughout the entire

1.22 year, including but not limited to:

2.1 (1) perennial crops, including forage and pasture;

2.2 (2) winter annual cash cover crops such as winter camelina and pennycress; and

2.3 (3) agroforestry practices.

2.4 (g) "Credit" means a unit of measure that: (1) is equal to one metric ton of carbon dioxide
2.5 equivalent; and (2) serves as a quantitative measure of the degree to which the carbon
2.6 intensity of a fuel provider's transportation fuel volume is lower than the carbon intensity
2.7 embodied in an applicable clean transportation standard. Credit includes a credit premium,
2.8 as provided in subdivision 2, paragraph (d).

2.9 (h) "Credit generator" means an entity that produces or imports a clean fuel for use in
2.10 Minnesota, which, with respect to electricity used as a transportation fuel, includes but is
2.11 not limited to automakers, charging providers, electric utilities, and electric vehicle fleet
2.12 operators.

2.13 (i) "Deficit" means a unit of measure that: (1) is equal to one metric ton of carbon dioxide
2.14 equivalent; and (2) serves as a quantitative measure of the degree to which the carbon
2.15 intensity of a fuel provider's volume of transportation fuel is greater than the carbon intensity
2.16 embodied in an applicable clean transportation standard.

2.17 (j) "Deficit generator" means a fuel provider who first produces or imports a transportation
2.18 fuel for use in Minnesota whose carbon intensity generates deficits.

2.19 (k) "Fuel pathway" means a detailed description of all stages of a transportation fuel's
2.20 production and use, including feedstock production, extraction, processing, transportation,
2.21 distribution, and combustion or use by an end-user.

2.22 (l) "Fuel provider" means an entity that supplies a transportation fuel for use in Minnesota.

2.23 (m) "Global warming potential" or "GWP" means a quantitative measure of a greenhouse
2.24 gas emission's potential to contribute to global warming over a 100-year period, expressed
2.25 in terms of the equivalent carbon dioxide emissions that would be required to produce the
2.26 same 100-year warming effect.

2.27 (n) "Greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons,
2.28 perfluorocarbons, or sulfur hexafluoride.

2.29 (o) "Motor vehicle" has the meaning given in section 169.011, subdivision 42.

2.30 (p) "Relevant petroleum-only portion of transportation fuels" means the component of
2.31 gasoline or diesel fuel prior to blending with ethanol, biodiesel, or other biofuel.

3.1 (q) "Soil-healthy farming practices" means farming practices that improve soil health,
3.2 as defined in section 103C.101, and that incorporate one or more of the following practices:

3.3 (1) no-till or conservation tillage;

3.4 (2) cover cropping;

3.5 (3) perennial cropping;

3.6 (4) inter-seeding;

3.7 (5) organic production;

3.8 (6) roller crimping; and

3.9 (7) managed rotational grazing.

3.10 (r) "Technology provider" means a manufacturer of an end-use consumer technology
3.11 involved in supplying clean fuels.

3.12 (s) "Transportation fuel" means electricity or a liquid or gaseous fuel that:

3.13 (1) is blended, sold, supplied, offered for sale, or used to propel a motor vehicle, including
3.14 but not limited to a train, light rail vehicle, ship, aircraft, forklift, or other road or nonroad
3.15 vehicle in Minnesota; and

3.16 (2) meets applicable standards, specifications, and testing requirements under this chapter.

3.17 Transportation fuel includes but is not limited to electricity used as fuel in a motor vehicle,
3.18 gasoline, diesel, ethanol, biodiesel, renewable diesel, propane, renewable propane, natural
3.19 gas, renewable natural gas, hydrogen, aviation fuel, and biomethane.

3.20 Subd. 2. **Clean transportation standard; establishment.** (a) The commissioner must
3.21 establish a clean transportation standard requiring that the aggregate carbon intensity of
3.22 transportation fuel supplied to Minnesota must be reduced to at least 25 percent below the
3.23 2018 baseline level by the end of 2030, by 75 percent by the end of 2040, and by 100 percent
3.24 by the end of 2050.

3.25 (b) In consultation with the Department of Commerce, Department of Transportation,
3.26 and Department of Agriculture, the commissioner must establish by rule an annual standards
3.27 schedule for the carbon intensity of transportation fuels that steadily decreases. When
3.28 establishing the annual standards schedule, the commissioner must consider the cost of
3.29 compliance, the technologies available to a provider to achieve the standard, the need to
3.30 maintain fuel quality and availability, and the impact on achieving the state's greenhouse

4.1 gas emissions reduction goals established in section 216H.02, subdivision 1, and the policy
4.2 goals in this chapter.

4.3 Subd. 3. **Clean transportation standard; baseline calculation.** The Pollution Control
4.4 Agency, after reviewing and considering the best available scientific data and calculations,
4.5 must calculate the baseline carbon intensity of the relevant petroleum-only portion of
4.6 transportation fuels for the 2018 calendar year.

4.7 Subd. 4. **Fuel pathway and carbon intensity determination.** (a) The commissioner
4.8 must establish a process to determine the carbon intensity of transportation fuels. Fuel
4.9 pathways must be determined using the most recent version of the Argonne National
4.10 Laboratory's GREET model adapted to Minnesota, as determined by the commissioner.
4.11 The fuel pathway determination process must:

4.12 (1) be consistent for all fuel types;

4.13 (2) be based on science and engineering;

4.14 (3) reflect differences in vehicle fuel efficiency and drive trains; and

4.15 (4) account for any on-site additional energy use by a carbon capture technology
4.16 employed in the fuel production process, including but not limited to generation, distillation,
4.17 and compression.

4.18 (b) The commissioner: (1) must consult with the Department of Agriculture, Department
4.19 of Transportation, and Department of Commerce to determine fuel pathways; and (2) may
4.20 coordinate with third-party entities or other states to review and approve fuel pathways.

4.21 Subd. 5. **Clean transportation standard; compliance.** A deficit generator may comply
4.22 with this section by:

4.23 (1) producing or importing transportation fuels whose carbon intensity is at or below
4.24 the level of the current standard; or

4.25 (2) purchasing sufficient credits to offset any aggregate deficits resulting from the carbon
4.26 intensity of the deficit generator's transportation fuels exceeding the current standard.

4.27 Subd. 6. **Credit generation.** A credit may be generated when transportation fuel is
4.28 produced, imported, or provided for use in Minnesota and the carbon intensity of the fuel
4.29 is less than the applicable clean fuel standard. The rules must ensure that there is no
4.30 double-counting of credits.

4.31 Subd. 7. **Credits; rules; verification.** (a) The rules adopted under this section, as required
4.32 under subdivision 8, must:

5.1 (1) establish and regulate the operation of a market to trade transportation fuel credits
5.2 and deficits, and may include:

5.3 (i) a market mechanism that allows credits to be traded or banked for future use;

5.4 (ii) transaction fees associated with the credit market; and

5.5 (iii) procedures to verify the validity of credits and deficits generated by a fuel provider
5.6 under this section;

5.7 (2) prohibit the generation of credits from certain activities, including:

5.8 (i) carbon capture and underground storage of carbon dioxide used for enhanced oil
5.9 recovery;

5.10 (ii) the production of biofuels from feedstock grown on croplands with fewer than five
5.11 consecutive years cropping history; and

5.12 (iii) renewable natural gas produced from any new or expanded agricultural livestock
5.13 production facility;

5.14 (3) allow an additional credit premium of five percent for cropland-derived biofuels
5.15 produced on acreage utilizing soil-healthy farming practices and fertilizer best management
5.16 practices; and

5.17 (4) allow an additional credit premium of ten percent for cropland-derived biofuels
5.18 produced on acreage utilizing continuous living cover cropping systems.

5.19 (b) The Pollution Control Agency must, in collaboration with the Department of
5.20 Commerce, Department of Transportation, Department of Agriculture, and the Board of
5.21 Water and Soil Resources, establish acceptable methods to verify credit premiums, as
5.22 provided for in paragraph (a), clauses (3) and (4), including but not limited to satellite and
5.23 aerial verification, and must require verification to occur annually.

5.24 (c) The commissioner must work in consultation with the commissioner of agriculture
5.25 to use the Argonne GREET model to develop a statewide average direct carbon intensity
5.26 value for cropland-derived biofuel feedstocks that is used as a component to determine the
5.27 overall lifecycle carbon intensity of biofuel production.

5.28 (d) The commissioner must work in consultation with the commissioner of agriculture
5.29 to develop procedures to allow biofuel producers to calculate a unique carbon intensity
5.30 score for biofuel feedstocks from crop-land derived biofuels using the Argonne GREET
5.31 model and other models, taking into account impacts on farm-related emissions and
5.32 sequestration of greenhouse gases. This unique carbon intensity may be used as an alternative

6.1 to using the statewide average described under paragraph (c). The procedures must include
6.2 a methodology for calculation, monitoring, and third-party auditing and verification of
6.3 on-farm practices, including reduced tillage; no-till; reduced on-farm fuel use; reduced use
6.4 of fertilizers and other inputs; use of cover crops; use of perennial strips; application of
6.5 manure; application of biochar; and other relevant practices that can impact the carbon
6.6 intensity of biofuel feedstocks, including other soil healthy farming practices or continuous
6.7 living cover cropping systems.

6.8 (e) A biofuel producer that elects to utilize a unique carbon intensity score under
6.9 paragraph (d) is prohibited from claiming the credit premiums under paragraph (a), clauses
6.10 (3) and (4).

6.11 (f) Nothing in this chapter precludes the Pollution Control Agency from adopting rules
6.12 that allow the generation of credits associated with electric or alternative transportation
6.13 fuels or infrastructure that existed prior to the effective date of this section or the start date
6.14 of program requirements.

6.15 (g) The commissioner must develop procedures to allow credit generators to generate
6.16 credits for electric vehicle charging that occurs in residences. All credit revenue generated
6.17 in this section must be expended to promote the adoption of electric vehicles, including but
6.18 not limited to electric vehicle purchase incentives, electric vehicle charging equipment, and
6.19 other transportation electrification initiatives. At least 60 percent of the credit revenue
6.20 generated in this section must be spent to support transportation electrification for the
6.21 primary benefit of disadvantaged communities, low-income communities, or rural
6.22 communities.

6.23 Subd. 8. **Clean transportation standard; establishment by rule; goals.** (a) No later
6.24 than, the commissioner must begin the process to adopt rules under chapter 14 that
6.25 implement a clean transportation standard and other provisions of this section.

6.26 (b) When developing proposed rules under this section, the commissioner shall consult
6.27 with:

6.28 (1) the commissioners of commerce, agriculture, transportation, and health; and

6.29 (2) an advisory committee, as provided for in section 14.101, subdivision 2, composed
6.30 of proportional representatives from agriculture; transportation fuel providers; consumers;
6.31 rural, urban, and Tribal communities; environmental organizations; environmental justice
6.32 organizations; technology providers; and urban communities that rely on river water as the
6.33 primary source of drinking water.

7.1 (c) When developing rules under this section, the commissioner must endeavor to make
7.2 available to Minnesota a fuel-neutral clean fuels portfolio that:

7.3 (1) creates broad rural and urban economic development;

7.4 (2) provides benefits for communities, consumers, clean fuel providers, technology
7.5 providers, and feedstock suppliers;

7.6 (3) increases energy security by expanding the supply of domestically produced fuels;

7.7 (4) supports equitable transportation electrification powered primarily with low-carbon
7.8 and carbon-free electricity that benefits all communities;

7.9 (5) improves air quality and public health, targeting communities that bear a
7.10 disproportionate health burden from pollution from transportation fuels;

7.11 (6) supports state solid waste recycling goals by facilitating credit generation from
7.12 renewable natural gas produced from organic waste;

7.13 (7) aims to support, through credit generation or other financial means, the adoption of
7.14 agricultural practices that benefit soil health and water quality while contributing to lower
7.15 life-cycle greenhouse gas emissions from clean fuel feedstocks;

7.16 (8) maximizes benefits to the environment and natural resources, develops safeguards
7.17 and incentives to protect natural lands, and enhances environmental integrity, including
7.18 biodiversity;

7.19 (9) is the result of extensive outreach efforts to stakeholders and communities that bear
7.20 a disproportionate health burden from pollution from transportation or from the production
7.21 and transportation of transportation fuels; and

7.22 (10) ensures that laborers and mechanics performing work on a project funded with
7.23 revenue earned by a utility from the sale of credits resulting from generation of credits for
7.24 residential charging using electricity as a transportation fuel are: (i) paid the prevailing wage
7.25 rate for the work as defined in section 177.42, subdivision 6; and (ii) subject to the
7.26 requirements and enforcement provisions of sections 177.30 and 177.41 to 177.45.

7.27 (d) Notwithstanding section 14.125, the requirement to publish a notice of intent to adopt
7.28 rules or notice of hearing within 18 months of the effective date of this act does not apply
7.29 to rules adopted under this section.

7.30 Subd. 9. Exemptions. Aviation fuels are exempt from the clean transportation standard
7.31 under this section due to federal preemption. Aviation fuel providers are eligible to elect to
7.32 participate in the clean transportation standard by earning credits to fuel aircraft with aviation

8.1 fuel with associated life-cycle greenhouse gas emissions lower than the per-unit standard
8.2 established in subdivision 2.

8.3 Subd. 10. **Fuel provider reports.** The commissioner must collaborate with the
8.4 Department of Agriculture, Department of Commerce, Department of Transportation, and
8.5 the Public Utilities Commission to develop a form and a process for credit and deficit
8.6 generators to annually report compliance with the carbon-intensity standard to the
8.7 commissioner.

8.8 Subd. 11. **Enforcement.** The commissioner of the Pollution Control Agency may enforce
8.9 this section under section 45.027.

8.10 Subd. 12. **Report to the legislature.** No later than 48 months after the effective date of
8.11 a rule implementing a clean transportation standard, the commissioner must submit a report
8.12 detailing program implementation to the chairs and ranking minority members of the house
8.13 of representatives and senate committees with jurisdiction over transportation and energy
8.14 policy. The commissioner must make summary information on the program available to
8.15 the public.

8.16 Subd. 13. **Periodic agency review.** No less than once every five years after the effective
8.17 date of a rule implementing a clean transportation standard, the commissioner must conduct
8.18 a detailed review of the clean transportation standard in order to determine whether the rule
8.19 is meeting the goals of subdivision 8, paragraph (c).

8.20 **EFFECTIVE DATE.** This section is effective the day following final enactment.

8.21 Sec. 2. **APPROPRIATION.**

8.22 \$900,000 in fiscal year 2024 is appropriated from the general fund to the commissioner
8.23 of the Pollution Control Agency to pay for costs incurred to create the report under Minnesota
8.24 Statutes, section 239.7912, subdivision 10. The money from this appropriation does not
8.25 cancel, but remains available until expended. This is a onetime appropriation.