

1.1 ..... moves to amend H.F. No. 2083 as follows:

1.2 Delete everything after the enacting clause and insert:

1.3 "Section 1. [239.7912] FUTURE FUELS ACT.

1.4 Subdivision 1. Definitions. (a) For the purposes of this section, the following terms have  
1.5 the meanings given.

1.6 (b) "Carbon dioxide equivalent" means the number of metric tons of carbon dioxide  
1.7 emissions that have the same global warming potential as one metric ton of another  
1.8 greenhouse gas.

1.9 (c) "Carbon intensity" means the quantity of life cycle greenhouse gas emissions  
1.10 associated with a unit of a specific transportation fuel, expressed in grams of carbon dioxide  
1.11 equivalent per megajoule of transportation fuel, as calculated by the most recent version of  
1.12 Argonne National Laboratory's GREET model adapted to Minnesota, as determined by the  
1.13 commissioner, and recent studies published in high quality academic scientific journals.

1.14 (d) "Clean fuel" means a transportation fuel that has a carbon intensity level below the  
1.15 clean fuels carbon intensity standard in a given year.

1.16 (e) "Continuous living cover cropping systems" means agricultural systems characterized  
1.17 by living plants above ground and living roots in the soil throughout the entire year, including,  
1.18 but not limited to:

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

1.20 (2) winter annual cover crops in rotation with summer annuals; and

1.21 (3) agroforestry practices.

1.22 (f) "Credit" means a unit of measure that is equal to one metric ton of carbon dioxide  
1.23 equivalent, and that serves as a quantitative measure of the degree to which the carbon

2.1 intensity of a fuel provider's transportation fuel volume is lower than the carbon intensity  
2.2 embodied in an applicable clean fuels standard. Credit includes a credit premium, as provided  
2.3 in subdivision 2, paragraph (d).

2.4 (g) "Credit generator" means a fuel provider who first produces or imports a transportation  
2.5 fuel for use in Minnesota whose carbon intensity generates credits.

2.6 (h) "Deficit" means a unit of measure that is equal to one metric ton of carbon dioxide  
2.7 equivalent, and that serves as a quantitative measure of the degree to which the carbon  
2.8 intensity of a fuel provider's volume of transportation fuel is greater than the carbon intensity  
2.9 embodied in an applicable clean fuels standard.

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

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

2.15 (k) "Fuel provider" means an entity that supplies a transportation fuel for use in  
2.16 Minnesota.

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

2.21 (m) "Greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons,  
2.22 perfluorocarbons, or sulfur hexafluoride.

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

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

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

2.28 (1) no-till or conservation tillage;

2.29 (2) cover cropping;

2.30 (3) perennial cropping;

2.31 (4) inter-seeding;

3.1 (5) organic production;

3.2 (6) roller crimping; and

3.3 (7) managed rotational grazing.

3.4 (q) "Technology provider" means a manufacturer of an end-use consumer technology  
3.5 involved in supplying clean fuels.

3.6 (r) "Transportation fuel" means electricity or a liquid or gaseous fuel that (1) is blended,  
3.7 sold, supplied, offered for sale, or used to propel a motor vehicle, including but not limited  
3.8 to a train, light rail vehicle, ship, aircraft, forklift, or other road or nonroad vehicle in  
3.9 Minnesota, and (2) meets applicable standards, specifications, and testing requirements  
3.10 under this chapter. Transportation fuel includes but is not limited to electricity used as fuel  
3.11 in a motor vehicle, gasoline, diesel, ethanol, biodiesel, renewable diesel, propane, renewable  
3.12 propane, natural gas, renewable natural gas, hydrogen, aviation fuel, and biomethane.

3.13 Subd. 2. **Clean fuels standard; establishment.** (a) The commissioner shall establish a  
3.14 clean fuels standard that requires the aggregate carbon intensity of transportation fuel  
3.15 supplied to Minnesota be reduced to at least 25 percent below the 2018 baseline level by  
3.16 the end of 2030, by 75 percent by the end of 2040, and by 100 percent by the end of 2050.  
3.17 In consultation with the Pollution Control Agency, Department of Agriculture, and  
3.18 Department of Transportation, the commissioner must establish by rule a schedule of annual  
3.19 standards for the carbon intensity of transportation fuels that steadily decreases.

3.20 (b) In determining the schedule of annual standards, the commissioner must consider  
3.21 the cost of compliance, the technologies available to a provider to achieve the standard, the  
3.22 need to maintain fuel quality and availability, and the impact on achieving the state's  
3.23 greenhouse gas emissions reduction goals established in section 216H.02, subdivision 1,  
3.24 and the policy goals in subdivision 2, paragraph (c).

3.25 Subd. 3. **Clean fuels standard; baseline calculation.** The department, after reviewing  
3.26 and considering the best available scientific data and calculations, must calculate the baseline  
3.27 carbon intensity of the relevant petroleum-only portion of transportation fuels for the 2018  
3.28 calendar year.

3.29 Subd. 4. **Fuel pathway and carbon intensity determination.** (a) The commissioner  
3.30 must establish a process to determine the carbon intensity of transportation fuels. Fuel  
3.31 pathways must be determined using the most recent version of the Argonne National  
3.32 Laboratory's GREET model adapted to Minnesota, as determined by the commissioner, and

4.1 recent studies published in high quality academic scientific journals. The fuel pathway  
4.2 determination process must:

4.3 (1) be consistent for all fuel types;

4.4 (2) be based on science and engineering;

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

4.6 (4) account for impacts on the carbon intensity of downstream drinking water treatment  
4.7 facility nutrient removal systems;

4.8 (5) account for impacts that climate change is projected to have on the carbon intensity  
4.9 of cropland over time; and

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

4.13 (b) The commissioner must consult with the Department of Agriculture, Department of  
4.14 Transportation, and Pollution Control Agency to determine fuel pathways, and may  
4.15 coordinate with third-party entities or other states to review and approve fuel pathways.

4.16 Subd. 5. **Clean fuels standard; compliance.** A deficit generator may comply with this  
4.17 section by:

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

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

4.22 Subd. 6. **Credits; rules; verification.** (a) The rules adopted under this section, as required  
4.23 under subdivision 7, must:

4.24 (1) establish and regulate the operation of a market for the trading of transportation fuel  
4.25 credits and deficits, and may include:

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

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

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

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

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

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

5.5 (3) allow an additional credit premium of five percent for cropland-derived biofuels  
5.6 produced on acreage utilizing soil healthy farming practices; and

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

5.9 (b) The department must, in collaboration with the Minnesota Pollution Control Agency,  
5.10 Minnesota Department of Agriculture, and the Board of Water and Soil Resources, establish  
5.11 acceptable methods to verify credit premiums, as provided for in subdivision 2, paragraph  
5.12 (d), including, but not limited to, satellite and aerial verification, and must require verification  
5.13 to take place annually.

5.14 (c) Nothing in this chapter precludes the department from adopting rules that allow the  
5.15 generation of credits associated with electric or alternative transportation fuels or  
5.16 infrastructure that existed prior to the effective date of this section or the start date of program  
5.17 requirements.

5.18 (d) Any revenue earned by a utility from the sale of credits resulting from the utility's  
5.19 generation of electricity as a transportation fuel must be expended to promote the adoption  
5.20 of electric vehicles, including, but not limited to, the deployment of or provision of incentives  
5.21 for electric vehicle charging infrastructure, or rebates to purchasers of electric vehicles.

5.22 Subd. 7. **Clean fuels standard; establishment by rule; goals.** (a) No later than ..., the  
5.23 commissioner must begin the process to adopt rules under chapter 14 that implement a clean  
5.24 fuels standard and other provisions of this section.

5.25 (b) In developing proposed rules under this section, the commissioner shall consult with:

5.26 (1) the commissioners of transportation, pollution control, agriculture, and health; and

5.27 (2) an advisory committee, as provided for in section 14.101, subdivision 2, composed  
5.28 of representatives of fuel providers, consumers, rural, urban and Tribal communities,  
5.29 agriculture, environmental and environmental justice organizations, technology providers,  
5.30 and businesses from urban communities that rely on river water as the primary source of  
5.31 drinking water.

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

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

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

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

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

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

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

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

6.16 (8) maximizes benefits to the environment and natural resources, develops safeguards  
6.17 and incentives to protect natural lands, and enhances environmental integrity, including  
6.18 biodiversity.

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

6.22 Subd. 8. **Fuel provider reports.** The commissioner must collaborate with the Department  
6.23 of Transportation, Department of Agriculture, Pollution Control Agency, and the Public  
6.24 Utilities Commission to develop a form and a process for credit and deficit generators to  
6.25 annually report compliance with the carbon-intensity standard to the commissioner.

6.26 Subd. 9. **Enforcement.** The commissioner of commerce may enforce this section under  
6.27 section 45.027.

6.28 Subd. 10. **Report to the legislature.** No later than 48 months after the effective date of  
6.29 a rule implementing a clean fuels standard, the commissioner must submit a report detailing  
6.30 program implementation to the chairs and ranking minority members of the senate and  
6.31 house committees with jurisdiction over transportation and energy policy. The commissioner  
6.32 must make summary information on the program available to the public.

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

7.2 Sec. 2. **APPROPRIATION.**

7.3 \$100,000 in fiscal year 2022 is appropriated from the general fund to the commissioner  
7.4 of commerce to pay for costs incurred to create the report under Minnesota Statutes, section  
7.5 239.7912, subdivision 10. The money from this appropriation does not cancel, but remains  
7.6 available until expended. This is a onetime appropriation."