

1.1 Senator moves to amend H.F. No. 2433 as follows:

1.2 Page 106, after line 21, insert:

1.3 "ARTICLE 13
1.4 ENERGY FINANCE

1.5 Section 1. Minnesota Statutes 2024, section 115C.08, subdivision 4, is amended to read:

1.6 Subd. 4. **Expenditures.** (a) Money in the fund may only be spent:

1.7 (1) to administer the petroleum tank release cleanup program established in this chapter;

1.8 (2) for agency administrative costs under sections 116.46 to 116.50, sections 115C.03
1.9 to 115C.06, and costs of corrective action taken by the agency under section 115C.03,
1.10 including investigations;

1.11 (3) for costs of recovering expenses of corrective actions under section 115C.04;

1.12 (4) for training, certification, and rulemaking under sections 116.46 to 116.50;

1.13 (5) for agency administrative costs of enforcing rules governing the construction,
1.14 installation, operation, and closure of aboveground and underground petroleum storage
1.15 tanks;

1.16 (6) for reimbursement of the environmental response, compensation, and compliance
1.17 account under subdivision 5 and section 115B.26, subdivision 4;

1.18 (7) for administrative and staff costs as set by the board to administer the petroleum tank
1.19 release program established in this chapter;

1.20 (8) for corrective action performance audits under section 115C.093;

1.21 (9) for contamination cleanup grants, as provided in paragraph (c);

1.22 (10) to assess and remove abandoned underground storage tanks under section 115C.094
1.23 and, if a release is discovered, to pay for the specific consultant and contractor services
1.24 costs necessary to complete the tank removal project, including, but not limited to, excavation
1.25 soil sampling, groundwater sampling, soil disposal, and completion of an excavation report;
1.26 ~~and~~

1.27 (11) to acquire interests in real or personal property, including easements, environmental
1.28 covenants under chapter 114E, and leases, that the agency determines are necessary for
1.29 corrective actions or to ensure the protectiveness of corrective actions. A donation of an
1.30 interest in real property to the agency is not effective until the agency executes a certificate

2.1 of acceptance. The state is not liable under this chapter solely as a result of acquiring an
2.2 interest in real property under this clause. Agency approval of an environmental covenant
2.3 under chapter 114E is sufficient evidence of acceptance of an interest in real property when
2.4 the agency is expressly identified as a holder in the covenant. Acquisition of real property
2.5 under this clause, except environmental covenants under chapter 114E, is subject to approval
2.6 by the board; and

2.7 (12) to partially reimburse the cost of replacing pressurized single-walled steel piping
2.8 related equipment in underground petroleum storage tank systems under section 115C.09,
2.9 subdivision 3l.

2.10 (b) Except as provided in paragraph (c), money in the fund is appropriated to the board
2.11 to make reimbursements or payments under this section.

2.12 (c) In fiscal years 2010 and 2011, \$3,700,000 is annually appropriated from the fund to
2.13 the commissioner of employment and economic development for contamination cleanup
2.14 grants under section 116J.554. Beginning in fiscal year 2012 and each year thereafter,
2.15 \$6,200,000 is annually appropriated from the fund to the commissioner of employment and
2.16 economic development for contamination cleanup grants under section 116J.554. Of this
2.17 amount, the commissioner may spend up to \$225,000 annually for administration of the
2.18 contamination cleanup grant program. The appropriation does not cancel and is available
2.19 until expended. The appropriation shall not be withdrawn from the fund nor the fund balance
2.20 reduced until the funds are requested by the commissioner of employment and economic
2.21 development. The commissioner shall schedule requests for withdrawals from the fund to
2.22 minimize the necessity to impose the fee authorized by subdivision 2. Unless otherwise
2.23 provided, the appropriation in this paragraph may be used for:

2.24 (1) project costs at a qualifying site if a portion of the cleanup costs are attributable to
2.25 petroleum contamination or new and used tar and tar-like substances, including but not
2.26 limited to bitumen and asphalt, but excluding bituminous or asphalt pavement, that consist
2.27 primarily of hydrocarbons and are found in natural deposits in the earth or are distillates,
2.28 fractions, or residues from the processing of petroleum crude or petroleum products as
2.29 defined in section 296A.01; and

2.30 (2) the costs of performing contamination investigation if there is a reasonable basis to
2.31 suspect the contamination is attributable to petroleum or new and used tar and tar-like
2.32 substances, including but not limited to bitumen and asphalt, but excluding bituminous or
2.33 asphalt pavement, that consist primarily of hydrocarbons and are found in natural deposits

3.1 in the earth or are distillates, fractions, or residues from the processing of petroleum crude
3.2 or petroleum products as defined in section 296A.01.

3.3 Sec. 2. Minnesota Statutes 2024, section 115C.09, is amended by adding a subdivision to
3.4 read:

3.5 Subd. 31. Reimbursement; single-walled steel piping. (a) For the purposes of this
3.6 subdivision, the following terms have the meanings given:

3.7 (1) "eligible equipment" means all equipment between the underground petroleum storage
3.8 tank and the dispenser, including piping, probes, monitors, pumps, containment, and electrical
3.9 equipment to support the equipment. Eligible equipment does not include underground
3.10 petroleum storage tanks, dispensers, canopies, site improvements, or signage replacement;

3.11 (2) "eligible location" means an underground petroleum storage tank system that is
3.12 located in Minnesota, has pressurized single-walled steel piping, and was installed before
3.13 the effective date of this subdivision; and

3.14 (3) "qualified person" means someone who is registered as a contractor under sections
3.15 115C.11 to 115C.12 and, as part of the person's trade or business, installs or repairs
3.16 pressurized underground petroleum storage tank systems.

3.17 (b) Notwithstanding any other provision of this chapter or any rules adopted under this
3.18 chapter, for replacement projects beginning after January 1, 2027, the board must reimburse
3.19 an owner 50 percent of the cost of replacing existing eligible equipment at eligible locations
3.20 with eligible equipment that meets all current applicable federal and Minnesota regulations
3.21 and standards, provided that:

3.22 (1) the owner considered at least two bids and selected the bid with the lowest total cost;
3.23 and

3.24 (2) the board determines that the costs incurred were reasonable.

3.25 (c) The board must not reimburse costs that the board determines were unreasonable.

3.26 (d) Reimbursement under paragraph (b) must not exceed \$100,000 per eligible location.

3.27 (e) The maximum annual expenditure from the fund established under section 115C.08
3.28 for purposes of this subdivision must not exceed \$4,000,000.

3.29 (f) An owner that owns or operates multiple eligible locations must not receive
3.30 reimbursement for more than two eligible locations per calendar year.

3.31 (g) An owner may be reimbursed for the costs of:

- 4.1 (1) all eligible equipment;
- 4.2 (2) labor completed by a qualified person and associated with eligible equipment
- 4.3 installation;
- 4.4 (3) labor completed by a qualified person and associated with dirt and concrete work
- 4.5 directly associated with installing eligible equipment; and
- 4.6 (4) permits, freight, and shipping directly related to eligible equipment.
- 4.7 (h) Nothing in this subdivision prohibits an owner from receiving reimbursement from
- 4.8 other sources for costs that are not reimbursed under this subdivision.
- 4.9 (i) This subdivision expires June 30, 2037.

4.10 Sec. 3. Minnesota Statutes 2025 Supplement, section 216B.16, subdivision 15, is amended

4.11 to read:

4.12 Subd. 15. **Low-income affordability programs.** (a) The commission must consider

4.13 ability to pay as a factor in setting utility rates and may establish affordability programs for

4.14 low-income residential ratepayers in order to ensure affordable, reliable, and continuous

4.15 service to low-income utility customers. A public utility serving low-income residential

4.16 ratepayers who use natural gas or service from a thermal energy network, as defined in

4.17 section 216B.2427, subdivision 1, for heating must file an affordability program with the

4.18 commission.

4.19 (b) Any affordability program the commission orders a utility to implement must:

4.20 (1) lower the percentage of income that participating low-income households devote to

4.21 energy bills;

4.22 (2) increase participating customer payments over time by increasing the frequency of

4.23 payments;

4.24 (3) decrease or eliminate participating customer arrears;

4.25 (4) lower the utility costs associated with customer account collection activities; and

4.26 (5) coordinate the program with other available low-income bill payment assistance and

4.27 conservation resources.

4.28 (c) In ordering affordability programs, the commission may require public utilities to

4.29 file program evaluations that measure the effect of the affordability program on:

4.30 (1) the percentage of income that participating households devote to energy bills;

5.1 (2) service disconnections; and

5.2 (3) frequency of customer payments, utility collection costs, arrearages, and bad debt.

5.3 (d) The commission must issue orders necessary to implement, administer, and evaluate
5.4 affordability programs, and to allow a utility to recover program costs, including
5.5 administrative costs, on a timely basis. The commission may not allow a utility to recover
5.6 administrative costs, excluding start-up costs, in excess of five percent of total program
5.7 costs, or program evaluation costs in excess of two percent of total program costs. The
5.8 commission must permit deferred accounting, with carrying costs, for recovery of program
5.9 costs incurred during the period between general rate cases.

5.10 (e) Public utilities may use information collected or created for the purpose of
5.11 administering energy assistance to administer affordability programs.

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

5.13 Sec. 4. **[216B.2429] THERMAL ENERGY NETWORKS.**

5.14 **Subdivision 1. Definitions.** For the purposes of this section, "thermal energy network"
5.15 or "TEN" has the meaning given in section 216B.2427, subdivision 1.

5.16 **Subd. 2. Thermal energy network service.** A public utility may offer service by a
5.17 thermal energy network.

5.18 **Subd. 3. Cost recovery.** A public utility must, subject to commission review and
5.19 approval, recover reasonable and prudently incurred costs of implementing an approved
5.20 TEN in a general rate case or, before December 31, 2036, in a thermal energy network
5.21 service rider.

5.22 **Subd. 4. TEN consumer protection.** A utility's provision of service by a TEN is subject
5.23 to the same laws, protections, and commission authority to which a utility's provision of
5.24 natural gas service is subject under this chapter.

5.25 **Subd. 5. TEN siting; priorities.** In assessing locations at which to site a TEN, a utility
5.26 must give preference to an area:

5.27 (1) whose residents have expressed a desire to have a TEN installed;

5.28 (2) whose characteristics resemble those of an area in which a successful TEN was
5.29 completed under a natural gas innovation plan filed under section 216B.2427; or

5.30 (3) that includes or is within an environmental justice area, as defined in section 116.065,
5.31 subdivision 1, paragraph (e).

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

6.2 Sec. 5. **[216C.392] SUPPLEMENTAL ENERGY ASSISTANCE GRANT PROGRAM.**

6.3 Subdivision 1. **Definitions.** (a) For the purposes of this section, the following terms have
6.4 the meanings given.

6.5 (b) "LIHEAP" has the meaning given in section 142G.02, subdivision 59.

6.6 (c) "Crisis grant" means a grant to a low-income household to prevent shut-off of
6.7 residential energy services, reinstate residential energy services, or enable delivery of
6.8 residential fuels.

6.9 (d) "Primary energy grant" means a grant to help a low-income household maintain and
6.10 continue affordable energy service.

6.11 Subd. 2. **Establishment.** A supplemental energy assistance grant program is established
6.12 in the department to award grants to eligible applicants. The purpose of the program is to
6.13 assist low-income households experiencing energy burden to pay the costs of heating,
6.14 cooling, and other home energy costs throughout the year.

6.15 Subd. 3. **Applications; procedures.** (a) The commissioner must develop policies and
6.16 procedures governing the grant application and award process, and must leverage existing
6.17 LIHEAP application processes and infrastructure to the maximum degree practicable.

6.18 (b) An eligible applicant must file an application with the commissioner on a form
6.19 developed by the commissioner. The form must be available to eligible applicants in both
6.20 a paper and electronic format.

6.21 Subd. 4. **Eligibility.** (a) A Minnesota resident whose household income is below the
6.22 income eligibility threshold identified in the Minnesota LIHEAP Detailed Model Plan
6.23 submitted to the United States Department of Health and Human Services for the applicable
6.24 program year is eligible to receive a grant award under this section. If the LIHEAP Detailed
6.25 Model Plan is not available, the commissioner may develop a similar income eligibility
6.26 threshold.

6.27 (b) An organization with experience conducting outreach for programs designed for
6.28 low-income households is eligible for grants awarded under subdivision 6, clause (4).

6.29 Subd. 5. **Grant awards.** (a) When awarding grants under this section, the commissioner
6.30 may give priority to expanding the number of households receiving energy assistance over
6.31 increasing grant amounts to households that already received assistance under LIHEAP
6.32 during the same year.

7.1 (b) To the extent practicable, available LIHEAP funds must be awarded to all eligible
7.2 applicants for primary energy and crisis grants before energy and crisis grants are awarded
7.3 under this section.

7.4 Subd. 6. **Types of grants.** The commissioner may award grants under this section for:

7.5 (1) crisis grants to households that received a LIHEAP primary energy grant from federal
7.6 funds but did not receive the maximum crisis grant amount while federal funds allocated
7.7 for crisis grants were available;

7.8 (2) primary energy and crisis grants to eligible households that did not receive LIHEAP
7.9 primary energy and crisis grants from federal funds;

7.10 (3) emergency heating system repair or replacement; and

7.11 (4) outreach activities.

7.12 Subd. 7. **Reporting.** (a) Beginning January 31, 2028, and annually thereafter until January
7.13 31, 2030, the commissioner must submit a report to the chairs and ranking minority members
7.14 of the senate and house of representatives committees with primary jurisdiction over energy
7.15 policy and finance that documents state supplemental energy assistance grant awards made
7.16 under this section during the previous program year from October 1 to September 30.

7.17 (b) To the extent practicable, the following information on grants awarded under this
7.18 section must be reported by statewide total, by county, and by census tract within cities with
7.19 populations over 30,000:

7.20 (1) the number of households awarded a grant;

7.21 (2) the number of households served that did not receive a LIHEAP primary energy
7.22 grant;

7.23 (3) the average primary energy grant award;

7.24 (4) the average crisis grant award; and

7.25 (5) average annual costs of heating and electricity for households served.

7.26 (c) The following information on grants awarded under this section may be reported as
7.27 statewide totals:

7.28 (1) the average household income of grant recipients;

7.29 (2) a distribution of grant awards by grant recipients' household income, expressed as a
7.30 percentage of the federal poverty level established by the United States Department of
7.31 Health and Human Services;

- 8.1 (3) the number of households that include a person over 60 years old;
8.2 (4) the number of households that include a disabled person;
8.3 (5) the number of households that include a child under six years old; and
8.4 (6) the number of households served by race or ethnicity.

8.5 (d) A report under this section must comply with chapter 13, including provisions
8.6 establishing data on individuals as not public in order to ensure the individual privacy of
8.7 applicants.

8.8 **Sec. 6. APPROPRIATION; PUBLIC UTILITIES COMMISSION.**

8.9 \$40,000 in fiscal year 2027 is appropriated from the general fund to the Public Utilities
8.10 Commission for thermal energy network services provided under Minnesota Statutes, section
8.11 216B.2429.

8.12 **Sec. 7. APPROPRIATION; DEPARTMENT OF COMMERCE.**

8.13 (a) \$15,000,000 in fiscal year 2027 is appropriated from the general fund to the
8.14 commissioner of commerce for the supplemental energy assistance grant program under
8.15 Minnesota Statutes, section 216C.392. This is a onetime appropriation and is available until
8.16 December 31, 2029.

8.17 (b) Of the amount appropriated in paragraph (a):

8.18 (1) up to 12.5 percent may be used for staffing and other costs associated with
8.19 administering the supplemental energy assistance grant program under Minnesota Statutes,
8.20 section 216C.392, including program planning and preparation, reviewing applications and
8.21 verifying information, and entering data into a central electronic system maintained by the
8.22 Department of Commerce. Of this funding, up to 2.5 percent may be used by the Department
8.23 of Commerce. The remaining amount allocated under this clause may be used to reimburse
8.24 reasonable administrative costs incurred under Minnesota Statutes, section 216C.392, by
8.25 service providers contracted by the Department of Commerce to deliver LIHEAP services;
8.26 and

8.27 (2) up to five percent may be used to reimburse the reasonable costs incurred under
8.28 Minnesota Statutes, section 216C.392, by organizations the department has contracted with
8.29 to provide outreach and assistance to households to complete grant applications under
8.30 Minnesota Statutes, section 216C.392. Priority for grants awarded under this clause must

10.1 (2) procure advanced equipment and controls
10.2 to enable the extension of the university's
10.3 microgrid to additional buildings; and
10.4 (3) expand (i) hands-on educational
10.5 opportunities for undergraduate and graduate
10.6 electrical engineering students to increase
10.7 understanding of microgrid operations, and
10.8 (ii) partnerships with community colleges.
10.9 This appropriation is available until June 30,
10.10 2029.

10.11 **Subd. 3. Green Hydrogen Project**

10.12 \$3,500,000 the second year is for a grant to
10.13 the city of St. Cloud for the Green Hydrogen
10.14 Project to incorporate a battery and renewable
10.15 energy system. This appropriation is available
10.16 until June 30, 2029.

10.17 **Subd. 4. Anaerobic Digester Energy System**

10.18 \$5,000,000 the second year is for a grant to
10.19 Ramsey/Washington Recycling and Energy,
10.20 in partnership with Dem-Con HZI Bioenergy,
10.21 LLC, to construct an anaerobic digester energy
10.22 system in Louisville Township. For the
10.23 purposes of this subdivision, "anaerobic
10.24 digester energy system" means a facility that
10.25 uses diverted food and organic waste to create
10.26 renewable natural gas and biochar. This
10.27 appropriation is available until June 30, 2029.

10.28 **Subd. 5. Como Zoo Geothermal Energy System**

10.29 \$2,250,000 the second year is for a grant to
10.30 Como Zoo in the city of St. Paul to construct
10.31 a geothermal energy system that provides
10.32 space heating and cooling to the large cats
10.33 building. For the purposes of this subdivision,
10.34 "geothermal energy system" means a system

11.1 composed of a heat pump that moves a
11.2 heat-transferring fluid through piping
11.3 embedded in the earth and absorbs the earth's
11.4 constant temperature, a heat exchanger, and
11.5 ductwork to distribute heated and cooled air
11.6 to a building. This appropriation is available
11.7 until June 30, 2029.

11.8 **Subd. 6. Minnesota Energy Alley**

11.9 (a) \$2,000,000 the first year is for a grant to
11.10 Clean Energy Economy Minnesota for the
11.11 Minnesota Energy Alley initiative. The
11.12 initiative is designed to promote energy
11.13 innovation through supporting energy
11.14 entrepreneurs and emerging businesses to
11.15 commercialize energy solutions by matching
11.16 promising innovators with established and
11.17 trustworthy Minnesota-based public and
11.18 private partners to demonstrate emerging
11.19 technologies in real-world applications. The
11.20 grant may be used to provide seed funding for
11.21 businesses, develop a training and
11.22 development program, support recruitment of
11.23 entrepreneurs to Minnesota, and secure
11.24 funding from federal programs and corporate
11.25 partners to establish a self-sustaining,
11.26 long-term revenue model. This appropriation
11.27 is available until June 30, 2028.

11.28 (b) By January 15, 2028, the commissioner of
11.29 commerce must submit a written report to the
11.30 chairs and ranking minority members of the
11.31 house of representatives and senate
11.32 committees with jurisdiction over energy
11.33 finance and policy on the activities and
11.34 accomplishments of the Minnesota Energy
11.35 Alley initiative during the previous fiscal year

12.1 and the disposition of this appropriation,
12.2 including a separate statement of the amount
12.3 of administrative costs.

12.4 **Subd. 7. Ammonia, Hydrogen, and Renewable**
12.5 **Energy Certificate Tracking**

12.6 (a) \$2,000,000 the second year is for a grant
12.7 to CleanCounts for technology that enables
12.8 tradable ammonia, hydrogen, and renewable
12.9 energy certificates.

12.10 (b) Beginning January 1, 2027, and through
12.11 January 1, 2031, an entity that receives a grant
12.12 under this subdivision must submit a report to
12.13 the legislative auditor that details how the
12.14 grant money received has been spent.

12.15 (c) Beginning January 1, 2031, and through
12.16 January 1, 2036, an entity that receives a grant
12.17 under this subdivision must report to the
12.18 commissioners of commerce and agriculture
12.19 regarding the number of ammonia certificates
12.20 issued in Minnesota as a result of the grant
12.21 money received.

12.22 (d) This appropriation is available until June
12.23 30, 2029.

12.24 **Subd. 8. Great Plains Institute**

12.25 \$500,000 the second year is for a grant to the
12.26 Great Plains Institute for work related to
12.27 identifying existing and future areas of the
12.28 state that are suitable for additional distributed
12.29 ammonia production and that have nearby
12.30 wind or other curtailed power. This
12.31 appropriation is available until June 30, 2029.

13.1 **Subd. 9. Macalester College Geothermal Energy**
13.2 **System**

13.3 (a) \$2,570,000 the second year is for a grant
13.4 to Macalester College in St. Paul to construct
13.5 an aquifer-based geothermal energy system
13.6 that provides space heating and cooling to a
13.7 new campus residence hall and welcome
13.8 center, with the capacity for future expansion
13.9 to serve as a district heating and cooling plant
13.10 for all campus buildings north of Grand
13.11 Avenue. This appropriation is available until
13.12 June 30, 2029.

13.13 (b) For purposes of this section, "aquifer-based
13.14 geothermal energy system" means a system
13.15 composed of wells that access underground
13.16 aquifers, heat pumps that transfer thermal
13.17 energy between buildings and the aquifer, heat
13.18 exchangers, and associated distribution
13.19 infrastructure.

13.20 **Subd. 10. Biomass Energy Facility**

13.21 (a) \$715,000 the second year is for a grant to
13.22 Liberty Paper, Inc. to study and plan for an
13.23 anaerobic digester or a biomass thermal
13.24 generation facility in the city of Becker. This
13.25 is a onetime appropriation and is available
13.26 until June 30, 2029.

13.27 (b) For purposes of this section, the following
13.28 terms have the meanings given: (1) "anaerobic
13.29 digester" means a facility that uses diverted
13.30 food and organic waste to generate renewable
13.31 natural gas and biochar; (2) "biochar" means
13.32 a solid substance, made from burning organic
13.33 material, that sequesters carbon and is capable
13.34 of being used as a soil application; and (3)
13.35 "biomass thermal generation facility" means

14.1 a facility that generates energy for commercial
 14.2 heat or industrial process heat from the
 14.3 combustion of organic material.

14.4 **Subd. 11. Geothermal Energy System; The**
 14.5 **Heights Community Energy**

14.6 (a) \$3,000,000 in the second year is for a grant
 14.7 to The Heights Community Energy to
 14.8 construct a geothermal energy system.

14.9 (b) For purposes of this section, "geothermal
 14.10 energy system" means a system composed of
 14.11 one or more heat pumps connected to piping
 14.12 embedded in the earth that exchanges thermal
 14.13 energy with the earth and associated
 14.14 distribution and building mechanical
 14.15 infrastructure to provide heating and cooling
 14.16 to one or more buildings.

14.17 **Subd. 12. Grant Administration**

14.18 Notwithstanding Minnesota Statutes, section
 14.19 16B.98, subdivision 14, the commissioner may
 14.20 use up to \$250,000 of the amount in this
 14.21 section for the administrative costs of the
 14.22 grants in this section.

14.23 **Sec. 3. UNIVERSITY OF MINNESOTA \$ -0- \$ 2,900,000**

14.24 (a) \$1,500,000 the second year is for research,
 14.25 development, outreach, and demonstration of
 14.26 energy systems that use hydrogen and
 14.27 ammonia production from renewable energy
 14.28 resources and other sources of clean energy
 14.29 as a means of storing and generating
 14.30 electricity. This appropriation is available until
 14.31 June 30, 2029.

14.32 (b) \$650,000 the second year is for the Natural
 14.33 Resources Research Institute to evaluate the
 14.34 state's geological hydrogen potential. The

15.1 evaluation must include: (1) the availability
 15.2 of the mined hydrogen resource; (2) the
 15.3 feasibility of extracting the hydrogen from
 15.4 underground deposits; (3) the potential
 15.5 groundwater management challenges; and (4)
 15.6 cost-effective strategies for storing and
 15.7 transporting mined hydrogen. The Natural
 15.8 Resources Research Institute must submit the
 15.9 evaluation and an interim report to the chairs
 15.10 and ranking minority members of the
 15.11 legislative committees with jurisdiction over
 15.12 energy policy and finance by May 15, 2028,
 15.13 and a final report by May 15, 2029.

15.14 (c) \$750,000 the second year is for the Natural
 15.15 Resources Research Institute to evaluate new
 15.16 feedstock resources for a globally competitive,
 15.17 next generation iron ore industry. The study
 15.18 must include but is not limited to
 15.19 quantification and characterization of
 15.20 resources related to iron ore, energy, water,
 15.21 hydrogen, biomass, carbon materials, process
 15.22 technologies, transportation, and
 15.23 manufacturing infrastructure that support
 15.24 cross-coupling of iron production with
 15.25 industries such as liquid fuels and ammonia.
 15.26 The Natural Resources Research Institute must
 15.27 submit the results of the study and an interim
 15.28 report to the chairs and ranking minority
 15.29 members of the legislative committees with
 15.30 jurisdiction over energy policy and finance by
 15.31 May 15, 2028, and a final report by May 15,
 15.32 2029.

15.33 **Sec. 4. POLLUTION CONTROL AGENCY \$ -0- \$ 3,000,000**

15.34 \$3,000,000 the second year is for a grant to
 15.35 the owner of a biomass energy generation

16.1 plant in Shakopee that uses waste heat from
 16.2 the generation of electricity in the malting
 16.3 process to purchase equipment to facilitate the
 16.4 disposal of wood that is infested by emerald
 16.5 ash borer. This appropriation is available until
 16.6 June 30, 2029. Notwithstanding Minnesota
 16.7 Statutes, section 16B.98, subdivision 14, the
 16.8 commissioner of the Pollution Control Agency
 16.9 may use up to \$25,000 of the amount in this
 16.10 section for the administrative costs of this
 16.11 grant.

16.12 **Sec. 5. DEPARTMENT OF AGRICULTURE \$ -0- \$ 4,000,000**

16.13 \$4,000,000 the second year is for a grant to
 16.14 TalusAg for the production and operation of
 16.15 at least two green fertilizer production systems
 16.16 located in Minnesota. This appropriation is
 16.17 available until June 30, 2029. Notwithstanding
 16.18 Minnesota Statutes, section 16B.98,
 16.19 subdivision 14, the commissioner of
 16.20 agriculture may use up to \$25,000 of the
 16.21 amount in this section for the administrative
 16.22 costs of this grant.

16.23 **Sec. 6. PUBLIC UTILITIES COMMISSION \$ -0- \$ 300,000**

16.24 (a) \$300,000 the second year is to contract
 16.25 with a third party to conduct a study to inform
 16.26 policymakers regarding the potential impact
 16.27 of new nuclear generation on the public
 16.28 interest of Minnesota, including affordability,
 16.29 reliability, environmental protection, public
 16.30 health, and equitable outcomes.
 16.31 (b) The commission must issue a competitive
 16.32 request for proposals and contract with an
 16.33 independent, qualified entity or consortium
 16.34 with demonstrated expertise in relevant subject

17.1 matter, and with no material financial interest
17.2 in the expansion of nuclear generation. The
17.3 commission must ensure balanced
17.4 representation of perspectives in the study.
17.5 The selected entity must disclose any potential
17.6 conflicts of interest to the commission. If the
17.7 commission determines that issuing a
17.8 competitive request for proposals would
17.9 unreasonably delay completion of the study
17.10 within the required timeline, the commission
17.11 may contract on a sole-source basis, provided
17.12 that the selected entity meets the qualifications
17.13 and independence requirements under this
17.14 paragraph.

17.15 (c) The study must be completed no later than
17.16 January 30, 2027, and must include, at a
17.17 minimum, discussion of:

17.18 (1) changes in federal regulations governing
17.19 the licensing of nuclear-powered facilities that
17.20 may speed the review and approval process;

17.21 (2) technological advances made with respect
17.22 to conventional nuclear-powered facilities that
17.23 affect safety and cost;

17.24 (3) full lifecycle costs, including capital costs,
17.25 financing costs, construction risk, cost
17.26 overruns, decommissioning costs, waste
17.27 management, and long-term liability exposure
17.28 compared to alternative resource options. The
17.29 analysis must include historical evidence from
17.30 comparable projects in the United States and
17.31 internationally;

17.32 (4) ratepayer impacts where new nuclear
17.33 generation has been developed, including
17.34 effects on electricity rates, cost and schedule

- 18.1 overruns, and the allocation of financial risk
18.2 between ratepayers and developers;
- 18.3 (5) public finance protections such as public
18.4 subsidies, tax expenditures, and financial
18.5 incentives required, and the opportunity cost
18.6 of those public investments;
- 18.7 (6) the prospects for small modular reactors
18.8 and factory-built portable modules with a
18.9 capacity up to 300 megawatts, including:
- 18.10 (i) the types of technologies available;
18.11 (ii) current licensing status; and
18.12 (iii) estimated costs;
- 18.13 (7) siting issues, including:
- 18.14 (i) the degree to which the requirement for
18.15 proximity to water resources sufficient for
18.16 cooling purposes restricts possible locations
18.17 of nuclear facilities, and what locations
18.18 meeting that requirement are available in this
18.19 state;
- 18.20 (ii) the potential for colocating nuclear
18.21 facilities with businesses that demand very
18.22 large amounts of electricity;
- 18.23 (iii) the environmental impacts of nuclear
18.24 facilities, including impacts on the health of
18.25 nearby residents;
- 18.26 (iv) the prospects for acceptance of nuclear
18.27 facilities by host communities, and best
18.28 practices for engaging communities on this
18.29 issue; and
- 18.30 (v) how interconnection and transmission
18.31 issues affect potential plant locations;
- 18.32 (8) nuclear waste issues, including:

- 19.1 (i) the amount and toxicity of radioactive
19.2 waste produced by both conventional nuclear
19.3 technologies and small modular reactors;
- 19.4 (ii) the costs of on-site storage;
- 19.5 (iii) the prospects for developing permanent
19.6 storage of radioactive waste at either a
19.7 federally-owned or privately-owned repository
19.8 to which Minnesota's waste could be
19.9 transported; and
- 19.10 (iv) the feasibility and cost of reprocessing
19.11 nuclear waste;
- 19.12 (9) the economic impacts of various nuclear
19.13 technologies on a host community, including:
- 19.14 (i) increased employment levels during
19.15 construction and operations;
- 19.16 (ii) increased local economic activity resulting
19.17 from purchases made by the nuclear-powered
19.18 facility and the facility's employees; and
- 19.19 (iii) potential tax revenue to local
19.20 communities, local schools, and the state;
- 19.21 (10) impacts of new nuclear-powered electric
19.22 generating plants on public safety officials and
19.23 emergency responders in host communities
19.24 and adjacent areas with respect to emergency
19.25 planning efforts;
- 19.26 (11) system integration, including impacts on
19.27 grid flexibility, compatibility with high levels
19.28 of renewable energy, ramping capability, and
19.29 implications for achieving Minnesota's
19.30 greenhouse gas reduction goals;
- 19.31 (12) how new nuclear generation could
19.32 accelerate or delay achievement of, and assist
19.33 or hinder ongoing compliance with,

20.1 Minnesota's statutory greenhouse gas
20.2 reduction and carbon-free electricity goals,
20.3 including comparison of deployment
20.4 timelines;
20.5 (13) expected timelines from permitting
20.6 through operation, including historical
20.7 averages and delays for similar projects;
20.8 (14) current Minnesota statutes and
20.9 administrative rules that would require
20.10 modification in order to enable the
20.11 construction and operation of advanced
20.12 nuclear reactors;
20.13 (15) the feasibility of replacing retiring
20.14 generation assets in host communities with
20.15 advanced nuclear reactors; and
20.16 (16) the workforce required and available, and
20.17 the training capacity necessary to construct
20.18 and operate new nuclear reactors.
20.19 (d) The study must be conducted transparently,
20.20 with all data, assumptions, and models
20.21 publicly available.
20.22 (e) No later than February 1, 2027, the
20.23 commission must submit the study to the
20.24 chairs and ranking minority members of the
20.25 senate and house of representatives
20.26 committees responsible for energy policy and
20.27 finance.

20.28 **Sec. 7. TRANSFERS.**

20.29 (a) \$2,000,000 in fiscal year 2027 is transferred from the renewable development account
20.30 in the special revenue fund to the geothermal planning grant account under Minnesota
20.31 Statutes, section 216C.47, subdivision 3. This is a onetime transfer.

- 21.1 (b) \$4,465,000 in fiscal year 2027 is transferred from the renewable development account
- 21.2 in the special revenue fund to the preweatherization account under Minnesota Statutes,
- 21.3 section 216C.264, subdivision 1c. This is a onetime transfer."
- 21.4 Amend the title accordingly