..... moves to amend H.F. No. 1986 as follows:

Delete everything after the enacting clause and insert:

"ARTICLE 1

APPROPRIATIONS

Section 1. **ENERGY APPROPRIATIONS.**

The sums shown in the columns marked "Appropriations" are appropriated to the agencies and for the purposes specified in this article. The appropriations are from the general fund, or another named fund, and are available for the fiscal years indicated for each purpose. The figures "2020" and "2021" used in this article mean that the appropriations listed under them are available for the fiscal year ending June 30, 2020, or June 30, 2021, respectively. "The first year" is fiscal year 2020. "The second year" is fiscal year 2021. "The biennium" is fiscal years 2020 and 2021.

	APPROPRIATIONS Available for the Year Ending June 30	
	2020	**2021**
Sec. 2. **ENERGY RESOURCES**	**16,484,000**	**14,219,000**
Appropriations by Fund		
General	6,143,000	4,409,000
Special Revenue	10,341,000	9,810,000

(a) $525,000 the first year is for reimbursement of litigation costs resulting from the lawsuit filed by North Dakota over provisions in chapter 216H.

(b) $8,000 the first year is for transfer to the commissioner of natural resources to develop a plan for converting brome and other grasslands on state-owned lands to restored prairie to provide additional carbon sequestration. The plan must:

(1) identify lands available for conversion, excluding tax-forfeited lands;

(2) require that the prairie restorations meet applicable Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines; and

(3) identify the funding and activities necessary to achieve all initial plantings by 2030.

(c) $600,000 the first year is for grants to schools for the installation of solar energy systems on or adjacent to schools located outside the electric retail service territory of the public utility subject to Minnesota Statutes, section 116C.779, subdivision 1.

(d) $30,000 the first year and $29,000 the second year are for the development of a financial incentive to encourage utilities to invest in energy conservation measures in residences after achieving their 1.75 percent energy-savings goal.

(e) $550,000 the first year is for transfer to the Board of Regents of the University of Minnesota to conduct a study producing climate model projections through the rest of this century for 10-square mile blocks covering the entire state of Minnesota.

(f) $100,000 the first year is for a study by an independent consultant selected through a request for proposal process to produce a report analyzing the potential costs and benefits of energy storage systems, as defined in Minnesota Statutes, section 216B.2422, subdivision 1, in Minnesota. The study may also include scenarios examining energy storage systems that are not capable of being controlled by a utility. The commissioner must engage a broad group of Minnesota stakeholders, including electric utilities and others, to develop and provide information for the report. The study must:

(1) identify and measure the different potential costs and savings produced by energy storage system deployment, including but not limited to:

(i) generation, transmission, and distribution facilities asset deferral or substitution;

(ii) impacts on ancillary services costs;

(iii) impacts on transmission and distribution congestion;

(iv) impacts on peak power costs;

(v) impacts on emergency power supplies during outages;

(vi) impacts on curtailment of renewable energy generators; and

(vii) reduced greenhouse gas emissions;

(2) analyze and estimate the:

(i) costs and savings to customers that deploy energy storage systems;

(ii) impact on the utility's ability to integrate renewable resources;

(iii) impact on grid reliability and power quality; and

(iv) effect on retail electric rates over the useful life of a given energy storage system compared to providing the same services using other facilities or resources;

(3) consider the findings of the analysis conducted by the Midcontinent Independent System Operator on energy storage capacity accreditation and participation in regional energy markets, including updates of the analysis; and

(4) include case studies of existing energy storage applications currently providing the benefits described in clauses (1) and (2).

(b) By December 31, 2019, the commissioner of commerce must submit the study to the chairs and ranking minority members of the senate and house of representatives committees with jurisdiction over energy policy and finance.

Sec. 3. **PUBLIC UTILITIES COMMISSION** **$ 7,793,000** **$ 7,793,000**

ARTICLE 2
ENERGY PROGRAMS

Section 1. Minnesota Statutes 2018, section 216B.62, subdivision 3b, is amended to read:

Subd. 3b. **Assessment for department regional and national duties.** In addition to other assessments in subdivision 3, the department may assess up to $500,000 per fiscal year for performing its duties under section 216A.07, subdivision 3a. The amount in this subdivision shall be assessed to energy utilities in proportion to their respective gross operating revenues from retail sales of gas or electric service within the state during the last calendar year and shall be deposited into an account in the special revenue fund and is

appropriated to the commissioner of commerce for the purposes of section 216A.07, subdivision 3a. An assessment made under this subdivision is not subject to the cap on assessments provided in subdivision 3 or any other law. For the purpose of this subdivision, an "energy utility" means public utilities, generation and transmission cooperative electric associations, and municipal power agencies providing natural gas or electric service in the state. ~~This subdivision expires June 30, 2018.~~

EFFECTIVE DATE. This section is revived and reenacted retroactively from June 29, 2018, except that the department is prohibited from making an assessment under this subdivision to finance the performance of any duties that occurred between June 30, 2018, and the date of enactment.

Sec. 2. **[216C.375] SOLAR FOR SCHOOLS PROGRAM.**

Subdivision 1. **Definitions.** (a) For the purposes of this section and section 216C.376, the following terms have the meanings given them.

(b) "Developer" means an entity that installs a solar energy system on a school building that has been awarded a grant under this section.

(c) "Energy storage system" means a commercially available technology capable of:

(1) absorbing and storing electrical energy; and

(2) dispatching stored electrical energy at a later time.

(d) "Photovoltaic device" has the meaning given in section 216C.06, subdivision 16.

(e)"School" means a school that operates as part of an independent or special school district.

(f) "School district" means an independent or special school district.

(g) "Solar energy system" means photovoltaic or solar thermal devices installed alone or in combination with an energy storage system.

Subd. 2. **Establishment; purpose.** A solar for schools program is established in the Department of Commerce. The purpose of the program is to provide grants to stimulate the installation of solar energy systems on or adjacent to school buildings by reducing their cost, and to enable schools to use the solar energy system as a teaching tool that can be integrated into the school's curriculum.

Subd. 3. **Establishment of account.** (a) A solar for schools program account is established in the special revenue fund. Money received from the general fund must be

transferred to the commissioner of commerce and credited to the account. Money deposited in the account remains in the account until expended, and does not cancel to the general fund.

(b) When a grant is awarded under this section, the commissioner shall reserve the grant amount in the account.

Subd. 4. **Expenditures.** (a) Money in the account may be used only:

(1) for grant awards made under this section; and

(2) to pay the reasonable costs incurred by the department to administer this section.

(b) Grant awards made with funds in the account are to be used only for grants for solar energy systems installed on or adjacent to school buildings receiving retail electric service from a utility that is not subject to section 116C.779, subdivision 1.

Subd. 5. **Eligible system.** (a) A grant may be awarded to a school under this section only if the solar energy system that is the subject of the grant:

(1) is installed on or adjacent to the school building that will consume the electricity generated by the solar energy system, on property within the service territory of the utility currently providing electric service to the school building; and

(2) has a capacity that does not exceed the lesser of 40 kilowatts or 120 percent of the estimated annual electricity consumption of the school building at which the solar energy system is proposed to be installed.

(b) A school district that receives a rebate or other financial incentive under section 216B.241 for a solar energy system and that demonstrates considerable need for financial assistance, as determined by the commissioner, is eligible for a grant under this section for the same solar energy system.

Subd. 6. **Application process.** (a) The commissioner shall issue a request for proposals to utilities, schools, and developers who may wish to apply for a grant under this section on behalf of a school.

(b) A utility or developer must submit an application to the commissioner on behalf of a school on a form prescribed by the commissioner. The form must include, at a minimum, the following information:

(1) the capacity of the proposed solar energy system and the amount of electricity that is expected to be generated;

(2) the current energy demand of the school building on which the solar energy generating system is to be installed, and information regarding any distributed energy resource, including subscription to a community solar garden, that currently provides electricity to the school building;

(3) the size of any energy storage system that is proposed to be installed as part of a solar energy system;

(4) a description of any solar thermal devices proposed as part of the solar energy system;

(5) the total cost of purchasing and installing the solar energy system, and its life-cycle cost, including removal and disposal of system at the end of its life;

(6) a copy of the proposed contract agreement between the school and the public utility or developer that includes provisions addressing responsibility for maintenance of the solar energy system;

(7) the school's plan to make the solar energy system serve as a visible learning tool for students, teachers, and visitors to the school, including how the solar energy system may be integrated into the school's curriculum;

(8) information that demonstrates the level of need of the school district for financial assistance available under this section; (9) information that demonstrates the readiness of the school to implement the project, including, but not limited to, the availability of the site on which the solar energy system is to be installed, and the level of the school's engagement with the utility providing electric service to the school building on which the solar energy system is to be installed on issues relevant to the implementation of the project, including metering and other issues;

(9) with respect to the installation and operation of the solar energy system, the willingness and ability of the developer or the public utility to:

(i) pay employees and contractors a prevailing wage rate, as defined in section 177.42, subdivision 6; and

(ii) adhere to the provisions of section 177.43;

(10) how the developer or public utility plans to reduce the school's initial capital expense for the purchase and installation of the solar energy system, and to provide financial benefits to the school from the utilization of federal and state tax credits, utility incentives, and other financial incentives; and

(11) any other information deemed relevant by the commissioner.

(c) The commissioner shall administer an open application process under this section at least twice annually.

(d) The commissioner shall develop administrative procedures governing the application and grant award process.

Subd. 7. **Energy conservation review.** At the commissioner's request, a school awarded a grant under this section shall provide the commissioner information regarding energy conservation measures implemented at the school building at which the solar energy system is to be installed. The commissioner may make recommendations to the school regarding cost-effective conservation measures it can implement and may provide technical assistance and direct the school to available financial assistance programs.

Subd. 8. **Technical assistance.** The commissioner shall provide technical assistance to schools to develop and execute projects under this section.

Subd. 9. **Grant payments.** The commissioner shall award a grant from the account established under subdivision 3 to a school for the necessary costs associated with the purchase and installation of a solar energy system. The amount of the grant shall be based on the commissioner's assessment of the school's need for financial assistance.

Subd. 10. **Limitations.** (a) No more than 50 percent of the grant payments awarded to schools under this section may be awarded to schools where the proportion of students eligible for free and reduced-price lunch under the National School Lunch Program is less than 50 percent.

(b) No more than ten percent of the total amount of grants awarded under this section may be awarded to schools that are part of the same school district.

Subd. 11. **Application deadline.** No application may be submitted under this section after December 31, 2023.

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

Sec. 3. **RESIDENTIAL ENERGY CONSERVATION FINANCIAL INCENTIVE.**

(a) In addition to any financial incentive approved under Minnesota Statutes, section 216B.16, subdivision 6c, the Public Utilities Commission must approve a financial incentive designed to encourage a public utility to continue investing in cost-effective conservation measures that result in energy savings to residential customers after the public utility has achieved annual energy savings for all customers equivalent to 1.75 percent of gross retail electric energy sales or 1.2 percent of gross annual retail natural gas sales. A public utility

is eligible to receive the new incentive developed under this section if the amount of energy savings by residential customers contributing to the 1.75 or 1.2 percent level, as applicable, equals or exceeds the average amount residential customers saved over the most recent three-year period, not counting any savings resulting from the new incentive developed under this section. When reviewing and approving the incentive, the Public Utilities Commission must ensure the effective involvement of interested parties and must apply the criteria established in Minnesota Statutes, section 216B.16, subdivision 6c, paragraph (b).

(b) By November 1, 2019, the commissioner of commerce must develop and submit to the Public Utilities Commission for approval a financial incentive that meets the requirements under paragraph (a). The Public Utilities Commission may modify the financial incentive submitted under this paragraph.

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

Sec. 4. **SMALL-AREA CLIMATE MODEL PROJECTIONS FOR MINNESOTA; APPROPRIATION.**

(a) The Board of Regents of the University of Minnesota shall conduct a study that produces climate model projections for the entire state of Minnesota in blocks as small as ten square miles in area.

(b) At a minimum, the study must:

(1) use resources at the Minnesota Supercomputing Institute to analyze high-performing climate models under moderate and high greenhouse gas emissions scenarios to develop a series of projections of temperature, precipitation, snow cover, and a variety of other climate parameters over the rest of this century;

(2) downscale the climate impact results under clause (1) to areas as small as ten square miles;

(3) develop a publicly accessible data portal website to (i) allow other universities, nonprofit organizations, businesses, and government agencies to use the model projections, and (ii) educate and train users how to make best use of the data;

(4) incorporate information on how to use the model results in the University of Minnesota Extension existing online climate adaptation training; and

(5) hold at least two "train the trainer" workshops for state agencies, municipalities, and others to educate colleagues how to use and interpret the data for climate adaptation efforts.

(c) Beginning July 1, 2020, and continuing each July 1 through 2022, the University of Minnesota must provide a written report to the chairs and ranking minority members of the senate and house of representatives committees with primary jurisdiction over agriculture, energy, and environment. The report must document the progress made on the study and study results, and must note any obstacles encountered that could prevent successful completion of the study.

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

Amend the title accordingly