..... moves to amend H.F. No. 956 as follows:

Delete everything after the enacting clause and insert:

"Section 1. Minnesota Statutes 2012, section 216B.02, subdivision 4, is amended to read:

Subd. 4. **Public utility.** "Public utility" means persons, corporations, or other legal entities, their lessees, trustees, and receivers, now or hereafter operating, maintaining, or controlling in this state equipment or facilities for furnishing at retail natural, manufactured, or mixed gas or electric service to or for the public or engaged in the production and retail sale thereof but does not include (1) a municipality or a cooperative electric association, organized under the provisions of chapter 308A, producing or furnishing natural, manufactured, or mixed gas or electric service; (2) a retail seller of compressed natural gas used as a vehicular fuel which purchases the gas from a public utility; or (3) a retail seller of electricity used to recharge a battery that powers an electric vehicle, as defined in section 169.011, subdivision 26a, and that is not otherwise a public utility under this chapter. Except as otherwise provided, the provisions of this chapter shall not be applicable to any sale of natural, manufactured, or mixed gas or electricity by a public utility to another public utility for resale. In addition, the provisions of this chapter shall not apply to a public utility whose total natural gas business consists of supplying natural, manufactured, or mixed gas to not more than 650 customers within a city pursuant to a franchise granted by the city, provided a resolution of the city council requesting exemption from regulation is filed with the commission. The city council may rescind the resolution requesting exemption at any time, and, upon the filing of the rescinding resolution with the commission, the provisions of this chapter shall apply to the public utility. No person shall be deemed to be a public utility if it furnishes its services only to tenants or cooperative or condominium owners in buildings owned, leased, or operated by such person. No person shall be deemed to be a public utility if it furnishes service to occupants of a manufactured home or trailer park owned, leased, or operated by such

person. No person shall be deemed to be a public utility if it produces or furnishes service to less than 25 persons. No person shall be deemed to be a public utility solely as a result of the person furnishing consumers with electricity or heat generated from wind or solar generating equipment located on the consumer's property, provided the equipment is owned or operated by an entity other than the consumer.

Sec. 2. Minnesota Statutes 2012, section 216B.03, is amended to read:

216B.03 REASONABLE RATE.

Every rate made, demanded, or received by any public utility, or by any two or more public utilities jointly, shall be just and reasonable. Rates shall not be unreasonably preferential, unreasonably prejudicial, or discriminatory, but shall be sufficient, equitable, and consistent in application to a class of consumers. To the maximum reasonable extent, the commission shall set rates to encourage energy conservation and renewable energy use and to further the goals of sections 216B.164, 216B.241, 216B.412, and 216C.05. Any doubt as to reasonableness should be resolved in favor of the consumer. For rate-making purposes a public utility may treat two or more municipalities served by it as a single class wherever the populations are comparable in size or the conditions of service are similar.

Sec. 3. Minnesota Statutes 2012, section 216B.16, is amended by adding a subdivision to read:

Subd. 6e. **Solar energy production incentive.** (a) Except as otherwise provided in this subdivision, all assessments authorized by section 216C.412 incurred in connection with the solar energy production incentive shall be recognized and included by the commission in the determination of just and reasonable rates as if the expenses were directly made or incurred by the utility in furnishing utility service.

(b) The commission shall not include expenses for the solar energy production incentive in determining just and reasonable electric rates for retail electric service provided to customers receiving the low-income electric rate discount authorized by subdivision 14.

Sec. 4. Minnesota Statutes 2012, section 216B.164, is amended by adding a subdivision to read:

Subd. 2a. **Definitions.** (a) For the purposes of this section, the following terms have the meanings given them:

(b)"Aggregated meter" means a meter located on the premises of a customer's owned or leased property that is contiguous with property containing the customer's designated meter.

(c) "Cogeneration" means a combined process whereby electrical and useful thermal energy are produced simultaneously.

(d) "Contiguous property" means property owned or leased by the customer sharing a common border, without regard to interruptions in contiguity caused by easements, public thoroughfares, transportation rights-of-way, or utility rights-of-way.

(e)"Customer" means the person who is named on the utility electric bill for the premises.

(f) "Designated meter" means a meter that is physically attached to the customer's facility that the customer-generator designates as the first meter to which net metered credits are to be applied as the primary meter for billing purposes when the customer is serviced by more than one meter.

(g) "Distributed generation" means a facility that:

(1) has a nameplate capacity of ten megawatts or less;

(2) is interconnected with a utility's distribution system, over which the commission has jurisdiction; and

(3) generates electricity from natural gas, renewable fuel, or a similarly clean fuel, and may include waste heat, cogeneration, or fuel cell technology.

(h) "High-efficiency distributed generation" means a distributed energy facility that has a minimum efficiency of 40 percent, as calculated under section 272.0211.

(i) "Net metered facility" means an electric generation facility with the purpose of offsetting energy use through the use of renewable energy or high-efficiency distributed generation sources.

(j) "Renewable energy" has the meaning given in section 216B.2411, subdivision 2.

(k) "Standby charge" means a charge imposed by an electric utility upon a distributed generation facility for the recovery of fixed costs necessary to make electricity service available to the distributed generation facility.

Sec. 5. Minnesota Statutes 2012, section 216B.164, subdivision 3, is amended to read:

Subd. 3. **Purchases; small facilities.** (a) For a qualifying facility having less than ~~40-kilowatt~~ 1,000-kilowatt capacity, the customer shall be billed for the net energy supplied by the utility according to the applicable rate schedule for sales to that class of customer. In the case of net input into the utility system by a qualifying facility having: (i) more than 40-kilowatt but less than ~~40-kilowatt~~ 1,000-kilowatt capacity, compensation to the customer shall be at a per kilowatt-hour rate determined under paragraph (b) ~~or (c)~~; or (ii) less than 40-kilowatt capacity, compensation to the customer shall be at a per-kilowatt rate determined under paragraph (c). Compensation for net input into the utility system

shall be applied as a credit to the customer's energy bill, carried forward and applied to subsequent energy bills for a period of up to 12 months. If any credit remains after the 12-month period, the value of the remaining credit must be returned to the customer, by check, within 15 days of the next billing date. The customer may choose the month in which the 12-month billing and credit period begins.

(b) In setting rates, the commission shall consider the fixed distribution costs to the utility not otherwise accounted for in the basic monthly charge and shall ensure that the costs charged to the qualifying facility are not discriminatory in relation to the costs charged to other customers of the utility. The commission shall set the rates for net input into the utility system based on avoided costs as defined in the Code of Federal Regulations, title 18, section 292.101, paragraph (b)(6), the factors listed in Code of Federal Regulations, title 18, section 292.304, and all other relevant factors.

(c) For qualifying facilities generating electricity before January 1, 2015, and notwithstanding any provision in this chapter to the contrary, a qualifying facility having less than 40-kilowatt capacity may elect that the compensation for net input by the qualifying facility into the utility system shall be at the average retail utility energy rate. "Average retail utility energy rate" is defined as the average of the retail energy rates, exclusive of special rates based on income, age, or energy conservation, according to the applicable rate schedule of the utility for sales to that class of customer.

(d) If the qualifying facility or net metered facility is interconnected with a nongenerating utility which has a sole source contract with a municipal power agency or a generation and transmission utility, the nongenerating utility may elect to treat its purchase of any net input under this subdivision as being made on behalf of its supplier and shall be reimbursed by its supplier for any additional costs incurred in making the purchase. Qualifying facilities or net metered facilities having less than ~~40-kilowatt~~ 1,000-kilowatt capacity may, at the customer's option, elect to be governed by the provisions of subdivision 4.

Sec. 6. Minnesota Statutes 2012, section 216B.164, subdivision 4, is amended to read:

Subd. 4. **Purchases; wheeling; costs.** (a) Except as otherwise provided in paragraph (c), this subdivision shall apply to all qualifying facilities having ~~40-kilowatt~~ 1,000-kilowatt capacity or more as well as qualifying facilities as defined in subdivision 3 and net metered facilities under subdivision 4a which elect to be governed by its provisions.

(b) The utility to which the qualifying facility is interconnected shall purchase all energy and capacity made available by the qualifying facility. The qualifying facility shall be paid the utility's full avoided capacity and energy costs as negotiated by the parties, as

set by the commission, or as determined through competitive bidding approved by the commission. The full avoided capacity and energy costs to be paid a qualifying facility that generates electric power by means of a renewable energy source are the utility's least cost renewable energy facility or the bid of a competing supplier of a least cost renewable energy facility, whichever is lower, unless the commission's resource plan order, under section 216B.2422, subdivision 2, provides that the use of a renewable resource to meet the identified capacity need is not in the public interest.

(c) For all qualifying facilities having 30-kilowatt capacity or more, the utility shall, at the qualifying facility's or the utility's request, provide wheeling or exchange agreements wherever practicable to sell the qualifying facility's output to any other Minnesota utility having generation expansion anticipated or planned for the ensuing ten years. The commission shall establish the methods and procedures to insure that except for reasonable wheeling charges and line losses, the qualifying facility receives the full avoided energy and capacity costs of the utility ultimately receiving the output.

(d) The commission shall set rates for electricity generated by renewable energy.

Sec. 7. Minnesota Statutes 2012, section 216B.164, is amended by adding a subdivision to read:

Subd. 4a. **Net metered facility.** Notwithstanding any provision of this chapter to the contrary, a customer with a net metered facility having less than 1,000-kilowatt capacity may elect to be compensated for the customer's net input into the utility system in the form of a kilowatt-hour credit on the customer's energy bill carried forward and applied to subsequent energy bills. Any net input supplied by the customer into the utility system that exceeds energy supplied to the customer by the utility during a 12-month period must be compensated at the utility's avoided cost rate under subdivision 3, paragraph (b), or subdivision 4, paragraph (b), as applicable. The customer may choose the month in which the annual billing period begins.

Sec. 8. Minnesota Statutes 2012, section 216B.164, is amended by adding a subdivision to read:

Subd. 4b. **Aggregation of meters.** (a) For the purpose of measuring electricity under subdivisions 3 and 4a, a utility must aggregate for billing purposes a customer's designated meter with one or more aggregated meters if a customer requests that it do so. Any aggregation of meters must be governed under this section.

(b) A customer must give at least 60 days' notice to the utility prior to a request that additional meters be included in meter aggregation. The specific meters must be identified

at the time of the request. In the event that more than one meter is identified, the customer must designate the rank order for the aggregated meters to which the net metered credits are to be applied. At least 60 days prior to the beginning of the next annual billing period, a customer may amend the rank order of the aggregated meters, subject to the provisions of this subdivision.

(c) The aggregation of meters applies only to charges that use kilowatt-hours as the billing determinant. All other charges applicable to each meter account must be billed to the customer.

(d) The utility must first apply the kilowatt-hour credit to the charges for the designated meter and then to the charges for the aggregated meters in the rank order specified by the customer. If the net metered facility supplies more electricity to the utility than the energy usage recorded by the customer's designated and aggregated meters during a monthly billing period, the utility must apply credits to the customer's next monthly bill for the excess kilowatt-hours.

(e) With the commission's prior approval, a utility may charge the customer requesting to aggregate meters a reasonable fee to cover the administrative costs incurred as a result of implementing the provisions of this subdivision, pursuant to a tariff approved by the commission for a public utility or by a governing body for a municipal electric utility or electric cooperative.

Sec. 9. Minnesota Statutes 2012, section 216B.164, is amended by adding a subdivision to read:

Subd. 4c. **Limiting cumulative generation prohibited.** The commission and any other governing body regulating public utilities, municipal electric utilities, or electric cooperatives are prohibited from limiting the cumulative generation of net metered facilities under subdivision 4a and qualifying facilities under subdivision 3 to less than five percent of a utility's or cooperative's average annual retail electricity sales as measured over the previous three calendar years. After the cumulative limit of five percent has been reached, a public utility, municipal electric utility, or electric cooperative's obligation to offer net metering to additional customers may be limited by the commission or governing body if it determines doing so is in the public interest. The commission may limit additional net metering obligations under this subdivision only after providing notice and opportunity for public comment. The governing body of a municipal electric utility or electric cooperative may limit additional net metering obligations under this subdivision only after providing the affected municipal electric utility or electric cooperative's customers with notice

and opportunity to comment. In determining whether to limit additional net metering obligations under this subdivision, the commission or governing body shall consider:

(1) the environmental and other public policy benefits of net metered facilities;

(2) the impact of net metered facilities on electricity rates for customers without net metered systems;

(3) the effects of net metering on the reliability of the electric system;

(4) technical advances or technical concerns; and

(5) other statutory obligations imposed on the commission or on a utility.

The commission or governing body may limit additional net metering obligations under clauses (2) to (4) only if it determines that additional net metering obligations would cause significant rate impact, require significant measures to address reliability, or raise significant technical issues.

Sec. 10. Minnesota Statutes 2012, section 216B.164, subdivision 6, is amended to read:

Subd. 6. **Rules and uniform contract.** (a) The commission shall promulgate rules to implement the provisions of this section. The commission shall also establish a uniform statewide form of contract for use between utilities and a net metered or qualifying facility having less than ~~40-kilowatt~~ 1,000-kilowatt capacity.

(b) The commission shall require the qualifying facility to provide the utility with reasonable access to the premises and equipment of the qualifying facility if the particular configuration of the qualifying facility precludes disconnection or testing of the qualifying facility from the utility side of the interconnection with the utility remaining responsible for its personnel.

(c) The uniform statewide form of contract shall be applied to all new and existing interconnections established between a utility and a net metered or qualifying facility having less than ~~40-kilowatt~~ 1,000-kilowatt capacity, except that existing contracts may remain in force until ~~written notice of election that the uniform statewide contract form applies is given by either party to the other, with the notice being of the shortest time period permitted under the existing contract for termination of the existing contract by either party, but not less than ten nor longer than 30 days~~ terminated by mutual agreement between both parties.

(d) An electric utility may not apply a standby charge to a net metered facility.

Sec. 11. Minnesota Statutes 2012, section 216B.164, is amended by adding a subdivision to read:

Subd. 10. **Energy for public buildings.** All the provisions of this section that apply to a qualifying facility with a capacity of less than one megawatt shall apply to a wind energy conversion system with a capacity of up to 3.5 megawatts or an energy storage device storing energy generated by a wind energy conversion system that provides energy to a public building.

For the purposes of this subdivision:

(1) "energy storage device" means a device capable of storing up to 3.5 megawatts of previously generated energy and releasing that energy for use at a later time.

(2) "public building" means a building or facility financed wholly or in part with public funds, including facilities financed by the Public Facilities Authority.

Sec. 12. **[216B.1641] VALUE OF SOLAR RATE.**

Subdivision 1. **Definition.** For the purposes of this section, "solar photovoltaic device" has the meaning given in section 216C.06, subdivision 16, and must meet the requirements of section 216C.25.

Subd. 2. **Applicability.** (a) This section shall apply:

(1) beginning January 1, 2014, to the two public utilities with the highest Minnesota retail electricity sales and the generation and transmission cooperative with the highest Minnesota wholesale electricity sales; and

(2) beginning July 1, 2015, to all Minnesota electric utilities, including cooperative electric associations and municipal electric utilities.

(b) Notwithstanding section 216B.164, an owner of a solar photovoltaic device may, with respect to the purchase price paid by a utility to an owner of a solar photovoltaic device, elect to be governed under this section or section 216B.164. All other provisions of section 216B.164, except those in subdivision 3 and subdivision 4, paragraphs (a) to (c), shall apply to an owner of a solar photovoltaic device electing to be governed under this section.

(c) This section does not apply to a utility that owns a solar photovoltaic device.

Subd. 3. **Interconnection.** Utilities shall be required to interconnect with a solar photovoltaic device whose owner offers to provide available energy or capacity and elects to be governed under this section.

Subd. 4. **Standard contract.** The commission shall establish a statewide uniform form of contract that must be used by a purchasing utility an owner of a solar photovoltaic device who elects to be governed under this section. The term of a power purchase agreement entered into under this section must be no less than 20 years and must provide for payments of the value of solar rate as approved by the commission under this section.

Subd. 5. **Purchases.** The utility to which a solar photovoltaic device whose owner elects to be governed under this section is interconnected shall purchase, throughout the term of the contract, all energy and capacity made available by the owner of the solar photovoltaic device. All purchases must be made at the value of solar rate approved by the commission under this section that is current as of the date the contract is effective.

Subd. 6. **Value of solar rate; calculation.** (a) By October 1, 2013, the Department of Commerce shall calculate the value of solar rate for each utility subject to the provisions of this section. The value of solar rate is expressed on a per kilowatt-hour basis and is equal to the sum of the following components:

(1) line loss savings equal to the value of the average amount of electricity lost through transmission and distribution when electricity is generated by the utility's nonsolar photovoltaic generators;

(2) transmission and distribution capacity savings equal to the value of delaying the need for capital investment in a utility's transmission and distribution system by contracting to purchase energy from solar photovoltaic devices;

(3) energy savings equal to the reduction in a utility's wholesale energy costs realized as a result of energy purchases from solar photovoltaic devices;

(4) generation capacity savings equal to the value of the benefit of the capacity added to the utility's system by solar photovoltaic devices;

(5) fuel price hedge value equal to the value of eliminating price uncertainty associated with the utility's purchases of fuel for electricity generation; and

(6) environmental benefits equal to the premium retail customers are willing to pay to consume energy produced from renewable resources.

(b) The department may, based on known and measurable evidence of the economic development benefits of solar electricity generation, including the net increase in local employment and taxes generated from the manufacture, operations, and maintenance of solar photovoltaic devices, or other factors, incorporate additional amounts into the value of solar rate.

Subd. 7. **Value of solar rate; information.** The Department of Commerce shall solicit information from each utility subject to the provisions of this section to assist it in calculating the value of solar rate. A utility shall provide the information requested by the department in a timely fashion.

Subd. 8. **Value of solar rate; process.** The Department of Commerce shall solicit comments and recommendations from utilities, ratepayers, and other interested parties regarding the calculation of the value of solar rate.

Subd. 9. **Value of solar rate; adjustments.** By January 1, 2015, and every January 1 thereafter through 2049, the commissioner shall make a determination as to whether the value of solar rate needs to be adjusted in order to reflect current conditions in energy markets or changes in the value of the components calculated in subdivision 6. In making that determination, the commissioner shall solicit comments and recommendations from interested parties in the same manner as required under subdivision 8. After considering the comments and recommendations, the commissioner may adjust the value of solar rate.

Subd. 10. **Value of solar rate; billing.** Notwithstanding section 216B.164, an owner of a solar photovoltaic device who elects to receive the value of solar rate for electricity generated by the solar photovoltaic device that is sold to a utility must be:

(1) charged by the utility the applicable rate schedule for sales to that class of customer for all electricity consumed by the customer;

(2) paid the value of solar rate by the utility for all electricity generated by the solar photovoltaic device;

(3) provided by the utility with a monthly bill that contains, in addition to the amounts in clauses (1) and (2), the net amount owed to the utility or net credit realized by the owner for that month and on a year-to-date basis; and

(4) provided by the utility with a meter that allows for the separate calculation of the amount of electricity consumed and generated at the property.

Subd. 11. **Commission review; approval.** (a) The commissioner shall submit the value of solar rate calculated under subdivision 6 and the information, comments and recommendations received under subdivisions 7 and 8 to the commission for its review and approval. The commission shall review the rate and the information, comments and recommendations and may, at its discretion, solicit additional comments and recommendations from utilities, ratepayers, and other interested parties regarding the calculation of the value of solar rate.

(b) By January 1 of 2014, and each January 1 thereafter through 2049, the commission shall approve or modify the value of solar rate submitted to it by the commissioner. The commission shall, by order, direct all electric utilities subject to this section to begin paying the value of solar rate most recently approved by the commission to owners of solar photovoltaic devices who sign a new standard contract under this section on or after the first day of the first month following the effective date of the order.

(c) In no case shall the commission approve a value of solar rate under this section that is lower than the applicable retail rate of the subject utility.

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

Sec. 13. Minnesota Statutes 2012, section 216B.1691, subdivision 1, is amended to read:

Subdivision 1. **Definitions.** (a) Unless otherwise specified in law, "eligible energy technology" means an energy technology that generates electricity from the following renewable energy sources:

(1) solar;

(2) wind;

(3) hydroelectric with a capacity of less than 100 megawatts;

(4) hydrogen, provided that after January 1, 2010, the hydrogen must be generated from the resources listed in this paragraph; or

(5) biomass, which includes, without limitation, landfill gas; an anaerobic digester system; the predominantly organic components of wastewater effluent, sludge, or related by-products from publicly owned treatment works, but not including incineration of wastewater sludge to produce electricity; and an energy recovery facility used to capture the heat value of mixed municipal solid waste or refuse-derived fuel from mixed municipal solid waste as a primary fuel.

(b) "Electric utility" means a public utility providing electric service, a generation and transmission cooperative electric association, a municipal power agency, or a power district.

(c) "Total retail electric sales" means the kilowatt-hours of electricity sold in a year by an electric utility to retail customers of the electric utility or to a distribution utility for distribution to the retail customers of the distribution utility. "Total retail electric sales" does not include the sale of hydroelectricity supplied by a federal power marketing administration or other federal agency, regardless of whether the sales are directly to a distribution utility or are made to a generation and transmission utility and pooled for further allocation to a distribution utility.

(d) "Renewable energy credit" means a certificate of proof, issued through the accounting system approved by the commission under subdivision 4, attesting that one unit of electricity was generated and delivered by an eligible energy technology, and including all renewable and environmental attributes associated with the production of electricity from the eligible energy technology.

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

Sec. 14. Minnesota Statutes 2012, section 216B.1691, subdivision 2a, is amended to read:

Subd. 2a. **Eligible energy technology standard.** (a) Except as provided in paragraph (b), each electric utility shall generate or procure sufficient electricity generated

by an eligible energy technology to provide its retail customers in Minnesota, or the retail customers of a distribution utility to which the electric utility provides wholesale electric service, so that at least the following standard percentages of the electric utility's total retail electric sales to retail customers in Minnesota are generated by eligible energy technologies by the end of the year indicated:

(1) 2012 12 percent
(2) 2016 17 percent
(3) 2020 20 percent
(4) 2025 25 percent.

(b) An electric utility that owned a nuclear generating facility as of January 1, 2007, must meet the requirements of this paragraph rather than paragraph (a). An electric utility subject to this paragraph must generate or procure sufficient electricity generated by an eligible energy technology to provide its retail customers in Minnesota or the retail customer of a distribution utility to which the electric utility provides wholesale electric service so that at least the following percentages of the electric utility's total retail electric sales to retail customers in Minnesota are generated by eligible energy technologies by the end of the year indicated:

(1) 2010 15 percent
(2) 2012 18 percent
(3) 2016 25 percent
(4) 2020 30 percent.

Of the 30 percent in 2020, at least 25 percent must be generated by solar energy or wind energy conversion systems and the remaining five percent by other eligible energy technology. Of the 25 percent that must be generated by wind or solar, no more than one percent may be solar generated and the remaining 24 percent or greater must be wind generated.

(c) By 2030, each public utility shall generate or procure sufficient electricity generated by an eligible energy technology to provide at least 40 percent of its total retail electric sales to retail customers in Minnesota.

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

Sec. 15. Minnesota Statutes 2012, section 216B.1691, subdivision 2e, is amended to read:

Subd. 2e. **Rate impact of standard compliance; report.** Each electric utility must submit to the commission and the legislative committees with primary jurisdiction over energy policy a report containing an estimation of the rate impact of activities of the

electric utility necessary to comply with this section. In consultation with the Department of Commerce, the commission shall determine a uniform reporting system to ensure that individual utility reports are consistent and comparable, and shall, by order, require each electric utility subject to this section to use that reporting system. The rate impact estimate must be for wholesale rates and, if the electric utility makes retail sales, the estimate shall also be for the impact on the electric utility's retail rates. Those activities include, without limitation, energy purchases, generation facility acquisition and construction, and transmission improvements. An initial report must be submitted within 150 days of May 28, 2011. After the initial report, a report must be updated and submitted as part of each integrated resource plan or plan modification filed by the electric utility under section 216B.2422. The reporting obligation of an electric utility under this subdivision expires December 31, 2025, for an electric utility subject to subdivision 2a, paragraph (a), and December 31, 2020, for an electric utility subject to subdivision 2a, paragraph (b).

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

Sec. 16. Minnesota Statutes 2012, section 216B.1691, is amended by adding a subdivision to read:

Subd. 2f. **Solar energy standard.** (a) In addition to the requirements of subdivision 2a, each electric utility shall generate or procure sufficient electricity generated by solar energy to serve its retail customers in Minnesota or the retail customers of a distribution utility to which the electric utility provides wholesale electric service, so that at least the following standard percentages of the electric utility's total retail electric sales to retail customers in Minnesota are generated by solar energy by the end of the year indicated:

(1)	2016	0.5 percent
(2)	2020	2.0 percent
(3)	2025	4.0 percent

(b) The solar energy standard established in this subdivision is subject to all the provisions of this section governing a utility's standard obligation under subdivision 2a.

(c) Electricity generated by a solar energy project may apply towards a utility's solar energy standard.

(d) It is an energy goal of the state of Minnesota that by 2030, ten percent of the retail electric sales in Minnesota be generated by solar energy.

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

Sec. 17. Minnesota Statutes 2012, section 216B.1691, subdivision 4, is amended to read:

Subd. 4. **Renewable energy credits.** (a) To facilitate compliance with this section, the commission, by rule or order, shall establish by January 1, 2008, a program for tradable renewable energy credits for electricity generated by eligible energy technology. The credits must represent energy produced by an eligible energy technology, as defined in subdivision 1. Each kilowatt-hour of renewable energy credits must be treated the same as a kilowatt-hour of eligible energy technology generated or procured by an electric utility if it is produced by an eligible energy technology. The program must permit a credit to be used only once. The program must treat all eligible energy technology equally and shall not give more or less credit to energy based on the state where the energy was generated or the technology with which the energy was generated. The commission must determine the period in which the credits may be used for purposes of the program.

(b) A renewable energy credit associated with electricity generated in Minnesota by an eligible energy technology is owned by the owner of the eligible energy technology facility that generated the electricity unless:

(1) the renewable energy credit is assigned to another entity by law;

(2) the renewable energy credit was transferred to another entity by contract executed prior to July 1, 2013; or

(3) the renewable energy credit was assigned to another entity by order of the commission prior to July 1, 2013.

(c) A renewable energy credit may be transferred only through a contract. A utility may not require transfer of a renewable energy credit as a condition for executing a contract required under sections 216B.1611 or 216B.164.

(d) In lieu of generating or procuring energy directly to satisfy the eligible energy technology objective or standard of this section, an electric utility may utilize renewable energy credits allowed under the program to satisfy the objective or standard.

~~(c)~~ (e) The commission shall facilitate the trading of renewable energy credits between states.

~~(d)~~ (f) The commission shall require all electric utilities to participate in a commission-approved credit-tracking system or systems. Once a credit-tracking system is in operation, the commission shall issue an order establishing protocols for trading credits.

~~(e)~~ (g) An electric utility subject to subdivision 2a, paragraph (b), may not sell renewable energy credits to an electric utility subject to subdivision 2a, paragraph (a), until 2021.

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

Sec. 18. Minnesota Statutes 2012, section 216B.23, subdivision 1a, is amended to read:

Subd. 1a. **Authority to issue refund.** (a) On determining that a public utility has charged a rate in violation of this chapter, a commission rule, or a commission order, the commission, after conducting a proceeding, may require the public utility to refund to its customers, in a manner approved by the commission, any revenues the commission finds were collected as a result of the unlawful conduct. Any refund authorized by this section is permitted in addition to any remedies authorized by section 216B.16 or any other law governing rates. Exercising authority under this section does not preclude the commission from pursuing penalties under sections 216B.57 to 216B.61 for the same conduct.

(b) This section must not be construed as allowing:

(1) retroactive ratemaking;

(2) refunds based on claims that prior or current approved rates have been unjust, unreasonable, unreasonably preferential, discriminatory, insufficient, inequitable, or inconsistent in application to a class of customers; or

(3) refunds based on claims that approved rates have not encouraged energy conservation or renewable energy use, or have not furthered the goals of section 216B.164, 216B.241, 216C.412, or 216C.05.

(c) A refund under this subdivision does not apply to revenues collected more than six years before the date of the notice of the commission proceeding required under this subdivision.

Sec. 19. Minnesota Statutes 2012, section 216B.241, subdivision 5c, is amended to read:

Subd. 5c. **Large solar electric generating plant.** (a) For the purpose of this subdivision:

(1) "project" means a solar electric generation project consisting of arrays of solar photovoltaic cells with a capacity of up to two megawatts located on the site of a closed landfill in Olmsted County owned by the Minnesota Pollution Control Agency; and

(2) "cooperative electric association" means a generation and transmission cooperative electric association that has a member distribution cooperative association to which it provides wholesale electric service in whose service territory a project is located.

(b) A cooperative electric association may elect to count all of its purchases of electric energy from a project toward only one of the following:

(1) its energy-savings goal under subdivision 1c; or

(2) its ~~energy objective or~~ solar energy standard under section 216B.1691.

(c) A cooperative electric association may include in its conservation plan purchases of electric energy from a project. The cost-effectiveness of project purchases may be determined by a different standard than for other energy conservation improvements

under this section if the commissioner determines that doing so is in the public interest in order to encourage solar energy. The kilowatt hours of solar energy purchased by a cooperative electric association from a project may count for up to 33 percent of its one percent savings goal under subdivision 1c or up to 22 percent of its 1.5 percent savings goal under that subdivision. Expenditures made by a cooperative association for the purchase of energy from a project may not be used to meet the revenue expenditure requirements of subdivisions 1a and 1b.

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

Sec. 20. Minnesota Statutes 2012, section 216B.2411, subdivision 3, is amended to read:

Subd. 3. **Other provisions.** (a) Electricity generated by a facility constructed with funds provided under this section and using an eligible renewable energy source may be counted toward the renewable energy objectives in section 216B.1691, subject to the provisions of that section, except as provided in subdivision (c).

(b) Two or more entities may pool resources under this section to provide assistance jointly to proposed eligible renewable energy projects. The entities shall negotiate and agree among themselves for allocation of benefits associated with a project, such as the ability to count energy generated by a project toward a utility's renewable energy objectives under section 216B.1691, except as provided in subdivision (c). The entities shall provide a summary of the allocation of benefits to the commissioner. A utility may spend funds under this section for projects in Minnesota that are outside the service territory of the utility.

(c) Electricity generated by a solar photovoltaic device constructed with funds provided under this section may be counted towards a utility's solar energy standard under section 216B.1691.

Sec. 21. Minnesota Statutes 2012, section 216B.62, subdivision 7, is amended to read:

Subd. 7. **Assessing all utilities.** The department shall assess public utilities, cooperative electric associations, and municipal utilities for the costs of activities under chapter 216C. The department shall not assess for costs of grants, loans, or other aids or for costs that can be recovered through other assessment authority, except as specifically authorized in statute or law. Each public utility, cooperative, and municipal utility shall be assessed in the proportion that its gross operating revenue for the sale of gas and electric service within the state for the last calendar year bears to the total of those revenues for all public utilities, cooperatives, and municipalities.

Sec. 22. **[216C.411] SOLAR ENERGY PRODUCTION INCENTIVE ACCOUNT.**

Subdivision 1. **Definitions.** For the purposes of this section, the terms defined in this subdivision have the meanings given them.

(a) "Commission" means the Public Utilities Commission.

(b) "Gross annual retail electricity sales" means annual electric sales to all retail customers in a public utility's Minnesota service territory.

(c) "Public utility" has the same meaning as provided in section 216B.02, subdivision 4.

Subd. 2. **Account established; account management.** A solar energy production incentive account is established as a separate account in the special revenue fund in the state treasury. The commissioner of management and budget shall credit to the account the amounts assessed and collected under this section and appropriations and transfers to the account. Earnings, such as interest, dividends, and any other earnings arising from account assets, must be credited to the account. Funds remaining in the account at the end of a fiscal year are not canceled to the general fund but remain in the account. The commissioner shall manage the account.

Subd. 3. **Purpose.** The purpose of the account is to pay the solar energy production incentive to owners of qualified solar photovoltaic devices, including related administrative costs, under section 216C.412.

Subd. 4. **Assessment.** Beginning January 1, 2014, and each January 1 thereafter through January 1, 2049, the department shall assess, under section 216B.62, subdivision 7, each utility an amount, not to exceed 1.33 percent of the utility's gross annual retail electricity sales within the state during the preceding calendar year, as required to carry out the purpose of section 216C.412. Such assessments are not subject to the cap on assessments provided by section 216B.62, or any other law. The assessment shall be deposited in the account established in subdivision 2.

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

Sec. 23. **[216C.412] SOLAR ENERGY PRODUCTION INCENTIVE.**

Subdivision 1. **Incentive payment; appropriation.** (a) Incentive payments may be made under this section only to an owner of a solar photovoltaic device who has:

(1) submitted to the commissioner, on a form prescribed by the commissioner, an application to receive the incentive; and

(2) received from the commissioner in writing a determination that the solar photovoltaic device qualifies for the incentive.

(b) There is annually appropriated from the solar energy production incentive account established under section 216C.411 to the commissioner of commerce sums sufficient to make the payments required under this section.

(c) A utility that owns a solar photovoltaic device is not eligible to receive incentive payments under this section.

Subd. 2. **Eligibility window; payment duration.** (a) Payments may be made under this section only for electricity generated from a solar photovoltaic device that first begins generating electricity after January 1, 2014, through December 31, 2049.

(b) Payment of the incentive begins and runs consecutively from the date the solar photovoltaic device begins generating electricity.

(c) The owner of a solar photovoltaic device may receive payments under this section for a period of 20 years. No payment may be made under this section for electricity generated after December 31, 2049.

Subd. 3. **Amount of payment.** (a) An incentive payment is based on the number of kilowatt hours of electricity generated. The per-kilowatt-hour amount of the payment for each category of qualified solar photovoltaic device listed below is equal to the applicable reference price specified in this subdivision minus:

(1) the value of solar rate approved by the commissioner under section 216B.1641, for owners of solar photovoltaic devices that have elected to have the utility's purchase price for electricity governed by that section; or

(2) the rate a utility pays an owner of a solar photovoltaic device for excess electricity generation under section 216B.164, for owners of solar photovoltaic devices that have elected to have the utility's purchase price for electricity governed by that section.

Nameplate Capacity	Reference Price
Residential	20.4 cents per kilowatt-hour
Non-residential:	
under 25 kilowatts	18.1 cents per kilowatt-hour
rooftop, 25 kilowatts to 2 megawatts	15.9 cents per kilowatt-hour
ground-mounted, 25 kilowatts to 2 megawatts	13.6 cents per kilowatt-hour

(b) By January 1, 2015, and every January 1 thereafter through 2049, the commissioner shall make a determination as to whether the reference price needs to be adjusted in order to achieve the solar energy standard established in section 216B.1691, subdivision 2f, at the lowest level of incentive payments. In making the determination, the commissioner shall solicit comments and recommendations from utilities, ratepayers, and other interested parties regarding the calculation of the reference price. After considering the comments and recommendations, the commissioner may adjust the reference price.

(c) For the purposes of this subdivision, "reference price" means the lowest per-kilowatt price for electricity generated by a qualified solar photovoltaic system the commissioner determines is sufficient to provide an economic incentive that will result in the development of aggregate capacity in this state to meet the solar energy standard established in section 216B.1691, subdivision 2f.

Subd. 4. **Additional payment; Made in Minnesota.** (a) The commissioner of commerce shall determine an additional incentive amount to be paid to owners of solar photovoltaic devices that are "Made in Minnesota."

(b) For the purposes of this subdivision:

(1) "Made in Minnesota" means the manufacture in this state of solar photovoltaic modules:

(i) at a manufacturing facility located in Minnesota that is registered and authorized to manufacture and apply the UL 1703 certification mark to solar photovoltaic modules by Underwriters Laboratory, CSA International, Intertek, or an equivalent UL-approved independent certification agency;

(ii) that bear UL 1703 certification marks from Underwriters Laboratory (UL), CSA International, Intertek, or an equivalent UL-approved independent certification agency, which marks must be physically applied to the modules at a manufacturing facility described in clause (1); and that meet either of the following conditions:

(iii) that are manufactured in Minnesota via manufacturing processes that must include tabbing, stringing, and lamination; or

(iv) that are manufactured in Minnesota by interconnecting low-voltage direct current photovoltaic elements that produce the final useful photovoltaic output of the modules.

A solar photovoltaic module that is manufactured by attaching microinverters, direct current optimizers, or other power electronics to a laminate or solar photovoltaic module that has received UL 1703 certification marks outside Minnesota from Underwriters Laboratory (UL), CSA International, Intertek, or an equivalent UL-approved independent certification agency is not "Made in Minnesota" under this subdivision.

(2) "Solar photovoltaic module" has the meaning given in section 116C.7791, subdivision 1.

Subd. 5. **Appropriation.** An amount sufficient to pay the solar energy production incentive under this section is annually appropriated from the account established under section 216C.411, to the commissioner of commerce for the purposes of this section.

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

Sec. 24. Minnesota Statutes 2012, section 216C.436, subdivision 7, is amended to read:

Subd. 7. **Repayment.** An implementing entity that finances an energy improvement under this section must:

(1) secure payment with a lien against the ~~benefited~~ qualifying real property; and

(2) collect repayments as a special assessment as provided for in section 429.101 or by charter, provided that special assessments may be made payable in up to 20 equal annual installments.

If the implementing entity is an authority, the local government that authorized the authority to act as implementing entity shall impose and collect special assessments necessary to pay debt service on bonds issued by the implementing entity under subdivision 8, and shall transfer all collections of the assessments upon receipt to the authority.

Sec. 25. Minnesota Statutes 2012, section 216C.436, subdivision 8, is amended to read:

Subd. 8. **Bond issuance; repayment.** (a) An implementing entity may issue revenue bonds as provided in chapter 475 for the purposes of this section, provided the revenue bond must not be payable more than 20 years from the date of issuance.

(b) The bonds must be payable as to both principal and interest solely from the revenues from the assessments established in subdivision 7.

(c) No holder of bonds issued under this subdivision may compel any exercise of the taxing power of the implementing entity that issued the bonds to pay principal or interest on the bonds, and if the implementing entity is an authority, no holder of the bonds may compel any exercise of the taxing power of the local government. Bonds issued under this subdivision are not a debt or obligation of the issuer or any local government that issued them, nor is the payment of the bonds enforceable out of any money other than the revenue pledged to the payment of the bonds.

Sec. 26. **STUDY OF POTENTIAL FOR SOLAR ENERGY INSTALLATIONS ON PUBLIC BUILDINGS.**

(a) The commissioner of commerce shall contract with an independent consultant selected through a request for proposal process to produce a report analyzing the potential for electricity generation resulting from the installation of solar photovoltaic devices on and adjacent to public buildings in this state. The study must:

(1) determine, for buildings identified under the process initiated in Laws 2001, chapter 212, article 1, section 3, commonly referred to as the B3 program, the amount of space available for the installation of solar photovoltaic devices and the maximum solar electricity generation potential; and

(2) utilize existing data on energy efficiency potential developed under the B3 program and determine how investments in energy efficiency for these buildings could be combined with solar photovoltaic systems to enhance a building's overall energy efficiency. The analysis must include a schedule for installing solar photovoltaic systems on public buildings at a rate of four percent of available space per year and must prioritize installations that result in the largest benefits with the shortest payback periods.

(b) By January 1, 2014, the commissioner of commerce shall submit a copy of the report to the chairs and ranking minority members of the legislative committees with primary jurisdiction over energy policy and state government finance.

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

Sec. 27. **SOLAR INTERCONNECTION STUDY.**

Each public utility, cooperative association, and municipal utility selling electricity shall, by November 1, 2013, provide to the commissioner of commerce an assessment of the capacity available on its electric distribution system for interconnecting solar photovoltaic devices installed on or adjacent to nonresidential buildings in the utility's service area. For each such potential interconnection point, the utility must calculate the maximum capacity of solar photovoltaic devices that could be installed on or adjacent to nearby nonresidential buildings, the amount of available capacity that could be installed without upgrading the utility's distribution system, and the cost of the upgrade necessary to accommodate the installation of the maximum capacity and lesser amounts.

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

Sec. 28. **VALUE OF ON-SITE ENERGY STORAGE STUDY.**

(a)The commissioner of commerce shall contract with an independent consultant selected through a request for proposal process to produce a report analyzing the potential costs and benefits of installing utility-managed energy storage devices in residential and commercial buildings in this state. The study must:

(1) estimate the potential value of on-site energy storage devices as a load-management tool to reduce costs for individual customers and for the utility, including, but not limited to, reductions in energy, particularly peaking, costs, and capacity costs;

(2) examine the interaction of energy storage devices with on-site solar photovoltaic devices; and

(3) analyze existing barriers to the installation of on-site energy storage devices by utilities, and examine strategies and design potential economic incentives to overcome those barriers.

(b) The commissioner of commerce shall assess an amount necessary under Minnesota Statutes, section 216B.241, subdivision 1e, for the purpose of completing the study described in this section.

By January 1, 2014, the commissioner of commerce shall submit the study to the chairs and ranking minority members of the legislative committees with jurisdiction over energy policy and finance.

Sec. 29. **VALUE OF SOLAR THERMAL STUDY.**

(a) The commissioner of commerce shall contract with an independent consultant selected through a request for proposal process to produce a report analyzing the potential costs and benefits of expanding the installation of solar thermal projects, as defined in Minnesota Statutes, section 216B.2411, subdivision 2, in residential and commercial buildings in this state. The study must examine the potential for solar thermal projects to reduce heating and cooling costs for individual customers and to reduce costs at the utility level as well. The study must also analyze existing barriers to the installation of on-site energy storage devices by utilities, and examine strategies and design potential economic incentives to overcome those barriers. By January 1, 2014, the commissioner of commerce shall submit the study to the chairs and ranking minority members of the legislative committees with jurisdiction over energy policy and finance.

(b) The commissioner of commerce shall assess an amount necessary under Minnesota Statutes, section 216B.241, subdivision 1e, for the purpose of completing the study described in this section.

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

Sec. 30. **SEVERABILITY.**

If any provision of this act is found to be unconstitutional and void, the remaining provisions of this act are valid.

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

Amend the title accordingly