

1.1 moves to amend H.F. No. 1405 as follows:

1.2 Delete everything after the enacting clause and insert:

1.3 "Section 1. TITLE.

1.4 Sections 2 to 22 shall be referred to as the "Clean Energy First Act."

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

1.6 Sec. 2. Minnesota Statutes 2018, section 216B.16, subdivision 13, is amended to read:

1.7 Subd. 13. **Economic and community development.** The commission may allow a
1.8 public utility to recover from ratepayers the expenses incurred for (1) economic and
1.9 community development, and (2) efforts to maximize employment of local workers to
1.10 construct and maintain generation facilities that supply power to the utility's customers.

1.11 Sec. 3. Minnesota Statutes 2018, section 216B.1645, subdivision 1, is amended to read:

1.12 Subdivision 1. **Commission authority.** Upon the petition of a public utility, the Public
1.13 Utilities Commission shall approve or disapprove power purchase contracts, investments,
1.14 or expenditures entered into or made by the utility to satisfy the wind and biomass mandates
1.15 contained in sections 216B.169, 216B.2423, and 216B.2424, and to satisfy the renewable
1.16 energy objectives and standards set forth in section 216B.1691, including reasonable
1.17 investments and expenditures made to:

1.18 (1) transmit the electricity generated from sources developed under those sections that
1.19 is ultimately used to provide service to the utility's retail customers, including studies
1.20 necessary to identify new transmission facilities needed to transmit electricity to Minnesota
1.21 retail customers from generating facilities constructed to satisfy the renewable energy
1.22 objectives and standards, provided that the costs of the studies have not been recovered

2.1 previously under existing tariffs and the utility has filed an application for a certificate of
 2.2 need or for certification as a priority project under section 216B.2425 for the new
 2.3 transmission facilities identified in the studies;

2.4 (2) provide storage facilities for renewable energy generation facilities that contribute
 2.5 to the reliability, efficiency, or cost-effectiveness of the renewable facilities; ~~or~~

2.6 (3) develop renewable energy sources from the account required in section 116C.779;
 2.7 or

2.8 (4) upgrade or modify existing transmission facilities primarily used to transmit electricity
 2.9 generated by a clean energy resource, as defined in section 216B.2422, subdivision 1,
 2.10 paragraph (f), regardless of whether the public utility has satisfied the standards set forth
 2.11 in section 216B.1691.

2.12 Sec. 4. Minnesota Statutes 2018, section 216B.1645, subdivision 2, is amended to read:

2.13 Subd. 2. **Cost recovery.** The expenses incurred by the utility over the duration of the
 2.14 approved contract or useful life of the investment ~~and~~, expenditures made pursuant to section
 2.15 116C.779 ~~shall be~~, and efforts to maximize employment of local workers to construct and
 2.16 maintain generation facilities that supply power to the utility's customers, are recoverable
 2.17 from the ratepayers of the utility, to the extent they are not offset by utility revenues
 2.18 attributable to the contracts, investments, or expenditures. Upon petition by a public utility,
 2.19 the commission shall approve or approve as modified a rate schedule providing for the
 2.20 automatic adjustment of charges to recover the expenses or costs approved by the commission
 2.21 under subdivision 1, which, in the case of transmission expenditures, are limited to the
 2.22 portion of actual transmission costs that are directly allocable to the need to transmit power
 2.23 from the renewable sources of energy. The commission may not approve recovery of the
 2.24 costs for that portion of the power generated from sources governed by this section that the
 2.25 utility sells into the wholesale market.

2.26 Sec. 5. Minnesota Statutes 2018, section 216B.1691, subdivision 9, is amended to read:

2.27 Subd. 9. **Local benefits.** The commission shall take all reasonable actions within its
 2.28 statutory authority to ensure this section is implemented to maximize benefits to Minnesota
 2.29 citizens and local workers as defined in section 216B.2422, subdivision 1, balancing factors
 2.30 such as local ownership of or participation in energy production, local job impacts as defined
 2.31 in section 216B.2422, subdivision 1, development and ownership of eligible energy
 2.32 technology facilities by independent power producers, Minnesota utility ownership of

3.1 eligible energy technology facilities, the costs of energy generation to satisfy the renewable
3.2 standard, and the reliability of electric service to Minnesotans.

3.3 Sec. 6. Minnesota Statutes 2019 Supplement, section 216B.2422, subdivision 1, is amended
3.4 to read:

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

3.7 (b) "Utility" means an entity with the capability of generating 100,000 kilowatts or more
3.8 of electric power and serving, either directly or indirectly, the needs of 10,000 retail
3.9 customers in Minnesota. Utility does not include federal power agencies.

3.10 (c) "Renewable energy" means electricity generated through use of any of the following
3.11 resources:

3.12 (1) wind;

3.13 (2) solar;

3.14 (3) geothermal;

3.15 (4) hydro;

3.16 (5) trees or other vegetation;

3.17 (6) landfill gas; or

3.18 (7) predominantly organic components of wastewater effluent, sludge, or related
3.19 by-products from publicly owned treatment works, but not including incineration of
3.20 wastewater sludge.

3.21 (d) "Resource plan" means a set of resource options that a utility could use to meet the
3.22 service needs of its customers over a forecast period, including an explanation of the supply
3.23 and demand circumstances under which, and the extent to which, each resource option
3.24 would be used to meet those service needs. These resource options include using,
3.25 refurbishing, and constructing utility plant and equipment, buying power generated by other
3.26 entities, controlling customer loads, and implementing customer energy conservation.

3.27 (e) "Refurbish" means to rebuild or substantially modify an existing electricity generating
3.28 resource of 30 megawatts or greater.

3.29 (f) "Energy storage system" means a commercially available technology that:

3.30 (1) uses mechanical, chemical, or thermal processes to:

4.1 (i) store energy, including energy generated from renewable resources and energy that
4.2 would otherwise be wasted, and deliver the stored energy for use at a later time; or

4.3 (ii) store thermal energy for direct use for heating or cooling at a later time in a manner
4.4 that reduces the demand for electricity at the later time;

4.5 (2) is composed of stationary equipment;

4.6 (3) if being used for electric grid benefits, is operationally visible and capable of being
4.7 controlled by the distribution or transmission entity managing it, to enable and optimize the
4.8 safe and reliable operation of the electric system; and

4.9 (4) achieves any of the following:

4.10 (i) reduces peak or electrical demand;

4.11 (ii) defers the need or substitutes for an investment in electric generation, transmission,
4.12 or distribution assets;

4.13 (iii) improves the reliable operation of the electrical transmission or distribution systems,
4.14 while ensuring transmission or distribution needs are not created; or

4.15 (iv) lowers customer costs by storing energy when the cost of generating or purchasing
4.16 it is low and delivering it to customers when the costs are high.

4.17 (g) "Clean energy resource" means renewable energy, an energy storage system, energy
4.18 efficiency, as defined in section 216B.2402, paragraph (g), or load management, as defined
4.19 in section 216B.2402, paragraph (o).

4.20 (h) "Carbon-free resource" means a generation technology that, when operating, does
4.21 not contribute to statewide greenhouse gas emissions, as defined in section 216H.01,
4.22 subdivision 2. Carbon-free resource does not include a nuclear-powered electric generation
4.23 facility operating in Minnesota on the effective date of this act.

4.24 (i) "Nonrenewable energy facility" means a generation facility, other than a nuclear
4.25 facility, that does not use a renewable energy or other clean energy resource.

4.26 (j) "Local job impacts" means the impacts of an integrated resource plan, a certificate
4.27 of need, a power purchase agreement, or commission approval of a new or refurbished
4.28 electric generation facility on the availability of high-quality construction and mining
4.29 employment opportunities for local workers.

4.30 (k) "Local workers" means workers employed to construct and maintain energy
4.31 infrastructure, or employed in a mining industry, that are Minnesota residents, residents of

5.1 the utility's service territory, or who permanently reside within 150 miles of a proposed new
5.2 or refurbished energy facility.

5.3 Sec. 7. Minnesota Statutes 2018, section 216B.2422, subdivision 2, is amended to read:

5.4 Subd. 2. **Resource plan filing and approval.** (a) A utility shall file a resource plan with
5.5 the commission periodically in accordance with rules adopted by the commission. The
5.6 commission shall approve, reject, or modify the plan of a public utility, as defined in section
5.7 216B.02, subdivision 4, consistent with the public interest.

5.8 (b) In the resource plan proceedings of all other utilities, the commission's order shall
5.9 be advisory and the order's findings and conclusions shall constitute prima facie evidence
5.10 which may be rebutted by substantial evidence in all other proceedings. With respect to
5.11 utilities other than those defined in section 216B.02, subdivision 4, the commission shall
5.12 consider the filing requirements and decisions in any comparable proceedings in another
5.13 jurisdiction.

5.14 (c) As a part of its resource plan filing, a utility shall include the least cost plan for
5.15 meeting ~~50 and~~ 75, and 100 percent of all energy needs from both new and refurbished
5.16 generating facilities through a combination of ~~conservation~~ clean energy and ~~renewable~~
5.17 energy carbon-free resources.

5.18 Sec. 8. Minnesota Statutes 2018, section 216B.2422, is amended by adding a subdivision
5.19 to read:

5.20 Subd. 2d. **Seasonal operations analysis.** (a) Each utility required to file a resource plan
5.21 under subdivision 2 must include in the plan an analysis of the economic and environmental
5.22 costs and benefits of operating each of its coal-fired electric generating units on a seasonal
5.23 basis. The analysis must include:

5.24 (1) an estimate of the amount of excess generating capacity on the utility's grid in each
5.25 of the following three years;

5.26 (2) a list of the dates on which each coal-fired electric generating unit was not committed
5.27 to the Midcontinent Independent Systems Operator as a result of economics for the three
5.28 most recent years;

5.29 (3) a comparison of the estimated reduction in variable costs of operating each unit on
5.30 a seasonal basis for each of the next three years, including, but not limited to, operations
5.31 and maintenance costs and capital expenditures, with the concomitant reduction in revenues;

6.1 (4) the estimated reduction in carbon dioxide and criteria pollutant emissions at units
6.2 operating on a seasonal basis for each of the next three years, and projections of the economic
6.3 value of those reductions calculated using the environmental costs established by the
6.4 commission under subdivision 3;

6.5 (5) the impact of seasonal operation on the reliability of the utility's grid;

6.6 (6) the impact of different Midcontinent Independent Systems Operator auction clearing
6.7 prices on the economics of seasonal operation;

6.8 (7) how seasonal operations might require modification in order to comply with the rules
6.9 and regulations of the Midcontinent Independent Systems Operator and the Federal Energy
6.10 Regulatory Commission;

6.11 (8) additional operational flexibility that may be required in order to meet contingencies
6.12 that develop under seasonal operation; and

6.13 (9) any other information requested by the commission.

6.14 (b) For the purposes of this subdivision, "seasonal operation" or "seasonal basis" means
6.15 operating a coal-fired electric generating unit only during the months of June through August
6.16 and December through February while retaining the ability to restart the idled plant in other
6.17 months.

6.18 **EFFECTIVE DATE.** This section is effective the day following final enactment and
6.19 applies to any integrated resource plan filed on or after that date.

6.20 Sec. 9. Minnesota Statutes 2018, section 216B.2422, subdivision 3, is amended to read:

6.21 Subd. 3. **Environmental costs.** ~~(a)~~ The commission shall, to the extent practicable,
6.22 quantify and establish a range of environmental costs associated with each method of
6.23 electricity generation. A utility shall use the values established by the commission in
6.24 conjunction with other external factors, including socioeconomic costs, when evaluating
6.25 and selecting resource options in all proceedings before the commission, including power
6.26 purchase agreement, resource plan, and certificate of need proceedings. When evaluating
6.27 resource options, the commission must include and consider the environmental cost values
6.28 adopted under this subdivision. When considering the costs of a nonrenewable energy
6.29 facility under this section, the commission must consider only nonzero values for the
6.30 environmental costs that must be analyzed under this subdivision, including both the low
6.31 and high values of any cost range adopted by the commission.

7.1 ~~(b) The commission shall establish interim environmental cost values associated with~~
7.2 ~~each method of electricity generation by March 1, 1994. These values expire on the date~~
7.3 ~~the commission establishes environmental cost values under paragraph (a).~~

7.4 Sec. 10. Minnesota Statutes 2018, section 216B.2422, is amended by adding a subdivision
7.5 to read:

7.6 Subd. 3a. **Favored electricity resources; state policy.** It is the policy of the state that,
7.7 in order to hasten the achievement of the greenhouse gas reduction goals under section
7.8 216H.02, the renewable energy standard under section 216B.1691, subdivision 2a, and the
7.9 solar energy standard under section 216B.1691, subdivision 2f, and given the significant
7.10 and continuing reductions in the cost of wind technologies, solar technologies, energy
7.11 storage systems, and demand-response technologies, the favored method to meet electricity
7.12 demand in Minnesota is a combination of clean energy resources.

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

7.14 Sec. 11. Minnesota Statutes 2018, section 216B.2422, is amended by adding a subdivision
7.15 to read:

7.16 Subd. 3b. **Nonrenewable energy facility; required analysis.** (a) In its application
7.17 requesting commission approval of the construction, refurbishing, or purchase of energy or
7.18 capacity from a nonrenewable energy facility in an integrated resource plan, a power purchase
7.19 agreement, or any other proceeding, a utility must include, at a minimum, the information
7.20 required under this subdivision.

7.21 (b) A utility must include plans to meet 50, 75, and 100 percent of the energy or capacity
7.22 provided by the proposed nonrenewable energy facility using the least costly combination
7.23 of clean energy and carbon-free resources.

7.24 (c) When analyzing costs under this subdivision, a utility must include the environmental
7.25 costs most recently adopted by the commission for carbon dioxide emissions and criteria
7.26 air pollutants, and socioeconomic costs required under subdivision 3, using both the low
7.27 and high ends of any cost range adopted by the commission. When considering the costs
7.28 of a nonrenewable energy facility under this section, the commission must consider only
7.29 nonzero values for the environmental costs that must be analyzed under subdivision 3,
7.30 including both the low and high values of any cost range adopted by the commission.

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

8.1 Sec. 12. Minnesota Statutes 2018, section 216B.2422, subdivision 4, is amended to read:

8.2 Subd. 4. **Preference for ~~renewable energy facility~~ clean energy resources.** (a) In order
8.3 to achieve the greenhouse gas reduction goals under section 216H.02, and the carbon-free
8.4 standard under section 216B.1691, the commission shall not approve a new or refurbished
8.5 nonrenewable energy facility in an integrated resource plan or a certificate of need, ~~pursuant~~
8.6 ~~to~~ under section 216B.243, or in any proceeding in which a utility seeks to construct an
8.7 electric generating facility or procure electricity or capacity, nor shall the commission
8.8 approve a power purchase agreement for power with a nonrenewable energy facility, or
8.9 allow rate recovery pursuant to ~~under~~ section 216B.16 for such a nonrenewable energy
8.10 facility, unless the utility has demonstrated by clear and convincing evidence that a renewable
8.11 energy facility, alone or in combination with other clean energy resources, is not in the
8.12 public interest. ~~When making the public interest determination, the commission must~~
8.13 ~~consider:~~

8.14 ~~(1) whether the resource plan helps the utility achieve the greenhouse gas reduction~~
8.15 ~~goals under section 216H.02, the renewable energy standard under section 216B.1691, or~~
8.16 ~~the solar energy standard under section 216B.1691, subdivision 2f;~~

8.17 ~~(2) impacts on local and regional grid reliability;~~

8.18 ~~(3) utility and ratepayer impacts resulting from the intermittent nature of renewable~~
8.19 ~~energy facilities, including but not limited to the costs of purchasing wholesale electricity~~
8.20 ~~in the market and the costs of providing ancillary services; and~~

8.21 ~~(4) utility and ratepayer impacts resulting from reduced exposure to fuel price volatility,~~
8.22 ~~changes in transmission costs, portfolio diversification, and environmental compliance~~
8.23 ~~costs.~~

8.24 (b) In order to find that a renewable energy facility, alone or in combination with other
8.25 clean energy resources, is not in the public interest, the commission must find by clear and
8.26 convincing evidence that utilizing renewable or clean energy resources to meet the need
8.27 for resources cannot be done affordably or reliably.

8.28 (c) To determine affordability, the commission must consider utility and ratepayer effects
8.29 resulting from:

8.30 (1) the intermittent nature of renewable energy facilities, including but not limited to
8.31 the costs to purchase wholesale electricity in the market and the costs to provide ancillary
8.32 services;

- 9.1 (2) reduced exposure to fuel price volatility, changes in transmission and distribution
9.2 costs, portfolio diversification, and environmental compliance costs; and
- 9.3 (3) other environmental costs of a nonrenewable energy facility, as determined by the
9.4 commission under subdivision 3.
- 9.5 (d) To determine reliability, the commission must consider:
- 9.6 (1) effects on regional grid reliability; and
- 9.7 (2) the ability of the proposed energy resources or facilities to provide:
- 9.8 (i) essential reliability services, including frequency response, balancing services, and
9.9 voltage control; and
- 9.10 (ii) energy and capacity.
- 9.11 (e) When considering the costs of a nonrenewable energy facility under this section, the
9.12 commission must consider only nonzero values for the environmental costs that must be
9.13 analyzed under subdivision 3, including both the low and high values of any cost range
9.14 adopted by the commission.
- 9.15 (f) The commission must make a written determination of its findings and conclusions
9.16 regarding affordability and reliability under this subdivision. The commission must also
9.17 make a written determination as to whether the energy resources approved by the
9.18 commission: (1) help the state achieve the greenhouse gas reduction goals under section
9.19 216H.02; and (2) help the utility achieve the renewable energy standard under section
9.20 216B.1691, or the solar energy standard under section 216B.1691, subdivision 2f.
- 9.21 (g) If the commission approves a resource plan that includes the retirement of a
9.22 nonrenewable energy facility owned by a public utility, the public utility shall own at least
9.23 an amount of the accredited capacity of clean energy resources equal to the percentage of
9.24 the retiring nonrenewable energy facility that remains undepreciated multiplied by the
9.25 accredited capacity of the retiring facility, and owns the transmission and other facilities
9.26 necessary to replace the accredited capacity of the retiring facility, provided:
- 9.27 (1) the utility demonstrates its ownership of replacement resources is in the public
9.28 interest, considering customer impacts and benefits; and
- 9.29 (2) the resource plan results in the utility meeting the standards described below:
- 9.30 (i) for an electric utility that owned a nuclear generating facility as of January 1, 2007,
9.31 at least 85 percent of its electric supply by the year 2030 and thereafter, and 100 percent of

10.1 its electric supply by the year 2045, from resources that do not contribute to statewide
10.2 greenhouse gas emissions, as defined in section 216H.01, subdivision 2; and

10.3 (ii) for an electric utility that did not own a nuclear generating facility as of January 1,
10.4 2007, at least 80 percent of its electric supply by the year 2030 and thereafter, and 100
10.5 percent of its electric supply by the year 2050, from resources that do not contribute to
10.6 statewide greenhouse gas emissions, as defined in section 216H.01, subdivision 2.

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

10.8 Sec. 13. Minnesota Statutes 2018, section 216B.2422, is amended by adding a subdivision
10.9 to read:

10.10 Subd. 4a. **Preference for local job creation.** As a part of its resource plan filing, a utility
10.11 must report on associated local job impacts and the steps the utility and its energy suppliers
10.12 and contractors are taking to maximize the availability of construction employment
10.13 opportunities for local workers. The commission must consider local job impacts and give
10.14 preference to proposals that maximize the creation of construction employment opportunities
10.15 for local workers, consistent with the public interest, when evaluating any utility proposal
10.16 that involves the selection or construction of facilities used to generate or deliver energy to
10.17 serve the utility's customers, including but not limited to an integrated resource plan, a
10.18 certificate of need, a power purchase agreement, or commission approval of a new or
10.19 refurbished electric generation facility.

10.20 Sec. 14. Minnesota Statutes 2018, section 216B.2422, subdivision 5, is amended to read:

10.21 Subd. 5. **Bidding; exemption from certificate of need proceeding.** (a) A utility may
10.22 select resources to meet its projected energy demand through a bidding process approved
10.23 or established by the commission. A utility shall use the environmental cost estimates
10.24 determined under subdivision 3 and consider local job impacts in evaluating bids submitted
10.25 in a process established under this subdivision.

10.26 (b) Notwithstanding any other provision of this section, if an electric power generating
10.27 plant, as described in section 216B.2421, subdivision 2, clause (1), is selected in a bidding
10.28 process approved or established by the commission, a certificate of need proceeding under
10.29 section 216B.243 is not required.

10.30 (c) A certificate of need proceeding is also not required for an electric power generating
10.31 plant that has been selected in a bidding process approved or established by the commission,

11.1 or such other selection process approved by the commission, to satisfy, in whole or in part,
11.2 the wind power mandate of section 216B.2423 or the biomass mandate of section 216B.2424.

11.3 Sec. 15. Minnesota Statutes 2018, section 216B.2422, is amended by adding a subdivision
11.4 to read:

11.5 Subd. 7. **Transmission planning in advance of generation retirement.** A utility must
11.6 identify in its resource plan each nonrenewable resource on its system that has a depreciation
11.7 term, probable service life, or operating license term that will end within 15 years of the
11.8 resource plan filing date. For each resource identified, the utility must include in its resource
11.9 plan an initial plan to (1) replace the resource if retired, and (2) upgrade any transmission
11.10 or other grid capabilities needed to support the retirement of that resource.

11.11 Sec. 16. **[216B.2427] SEASONAL OPERATIONS PLAN.**

11.12 (a) A public utility may file a plan, as part of an integrated resource plan or via a separate
11.13 filing, for the commission's review and approval to implement a pilot project to operate one
11.14 or more of its coal-fired electric generating facilities on a seasonal basis. The plan must
11.15 include:

11.16 (1) the analysis required under section 216B.2422, subdivision 2d;

11.17 (2) the proposed changes in operation and the duration of those changes;

11.18 (3) a description of the data from the pilot project that the public utility will collect;

11.19 (4) how the public utility proposes to evaluate the data collected;

11.20 (5) protections the public utility will employ to ensure that the pilot project does not
11.21 unreasonably increase rates to ratepayers or negatively impact the utility's ability to provide
11.22 reliable electric service; and

11.23 (6) a schedule of reports that the public utility will make to the commission during and
11.24 after the operation of the pilot project and the data and analyses the reports will contain.

11.25 (b) The commission may approve, modify, or reject a plan. A public utility may decide
11.26 not to implement a plan modified by the commission.

11.27 (c) The commission may approve a plan if it finds that the plan:

11.28 (1) will produce useful information on the costs and benefits of seasonal operations as
11.29 a means of reducing the electric utility's greenhouse gas emissions;

11.30 (2) will not jeopardize reliable electric service to ratepayers; and

12.1 (3) will not unreasonably increase electric rates.

12.2 (d) A public utility implementing an approved pilot project under this section is authorized
12.3 to recover prudently incurred costs, including fuel costs, resulting from implementation of
12.4 the plan.

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

12.6 **Sec. 17. [216C.45] POWER PLANT HOST COMMUNITY TRANSITION**
12.7 **PLANNING.**

12.8 The commissioner of commerce must coordinate with the commissioner of labor and
12.9 industry and the commissioner of employment and economic development to develop plans,
12.10 programs, and other recommendations to mitigate the impacts on host communities and
12.11 workers resulting from the eventual retirement of large generation facilities. The
12.12 commissioners must coordinate this work with representatives of the local government units
12.13 that host large generation facilities; the workers at large generation facilities, including
12.14 full-time employees and contractors; and the utilities that own large generation facilities.

12.15 Sec. 18. Minnesota Statutes 2018, section 216E.03, subdivision 10, is amended to read:

12.16 Subd. 10. **Final decision.** (a) No site permit shall be issued in violation of the site
12.17 selection standards and criteria established in this section and in rules adopted by the
12.18 commission. When the commission designates a site, it shall issue a site permit to the
12.19 applicant with any appropriate conditions. The commission shall publish a notice of its
12.20 decision in the State Register within 30 days of issuance of the site permit.

12.21 (b) No route permit shall be issued in violation of the route selection standards and
12.22 criteria established in this section and in rules adopted by the commission. When the
12.23 commission designates a route, it shall issue a permit for the construction of a high-voltage
12.24 transmission line specifying the design, routing, right-of-way preparation, and facility
12.25 construction it deems necessary, and with any other appropriate conditions. The commission
12.26 may order the construction of high-voltage transmission line facilities that are capable of
12.27 expansion in transmission capacity through multiple circuiting or design modifications. The
12.28 commission shall publish a notice of its decision in the State Register within 30 days of
12.29 issuance of the permit.

12.30 (c) The commission may not issue an applicant a site permit to construct a large electric
12.31 generating plant, or a site permit amendment for a repowering project, as defined in section
12.32 216B.243, subdivision 8, paragraph (b), unless the applicant certifies that all employees

13.1 constructing the project are to be paid, at a minimum, the prevailing wage rate, as defined
13.2 in section 177.42. This paragraph also applies to a permit to construct or repower an LWECS,
13.3 as defined in section 216F.01, subdivision 1, whose capacity exceeds 25 megawatts.

13.4 Sec. 19. Minnesota Statutes 2018, section 216E.04, subdivision 9, is amended to read:

13.5 Subd. 9. **Final decision.** (a) No site permit shall be issued in violation of the site selection
13.6 standards and criteria established in this section and in rules adopted by the commission.
13.7 When the commission designates a site, it shall issue a site permit to the applicant with any
13.8 appropriate conditions. The commission shall publish a notice of its decision in the State
13.9 Register within 30 days of issuance of the site permit.

13.10 (b) No route designation shall be made in violation of the route selection standards and
13.11 criteria established in this section and in rules adopted by the commission. When the
13.12 commission designates a route, it shall issue a permit for the construction of a high-voltage
13.13 transmission line specifying the design, routing, right-of-way preparation, and facility
13.14 construction it deems necessary and with any other appropriate conditions. The commission
13.15 may order the construction of high-voltage transmission line facilities that are capable of
13.16 expansion in transmission capacity through multiple circuiting or design modifications. The
13.17 commission shall publish a notice of its decision in the State Register within 30 days of
13.18 issuance of the permit.

13.19 (c) The commission may not issue an applicant a site permit to construct a large electric
13.20 generating plant, or a site permit amendment for a repowering project, as defined in section
13.21 216B.243, subdivision 8, paragraph (b), unless the applicant certifies that all employees
13.22 constructing the project are to be paid, at a minimum, the prevailing wage rate, as defined
13.23 in section 177.42. This paragraph also applies to a permit to construct or repower an LWECS,
13.24 as defined in section 216F.01, subdivision 1, whose capacity exceeds 25 megawatts.

13.25 Sec. 20. Minnesota Statutes 2018, section 216F.04, is amended to read:

13.26 **216F.04 SITE PERMIT.**

13.27 (a) No person may construct an LWECS without a site permit issued by the Public
13.28 Utilities Commission.

13.29 (b) Any person seeking to construct an LWECS shall submit an application to the
13.30 commission for a site permit in accordance with this chapter and any rules adopted by the
13.31 commission. The permitted site need not be contiguous land.

14.1 (c) The commission shall make a final decision on an application for a site permit for
14.2 an LWECS within 180 days after acceptance of a complete application by the commission.
14.3 The commission may extend this deadline for cause.

14.4 (d) The commission may place conditions in a permit and may deny, modify, suspend,
14.5 or revoke a permit.

14.6 (e) The commission may not issue an applicant a site permit to construct an LWECS
14.7 with a nameplate capacity exceeding 25 megawatts, or a site permit amendment for a
14.8 repowering project, as defined in section 216B.243, subdivision 8, paragraph (b), unless
14.9 the applicant certifies that all employees constructing the project are to be paid, at a minimum,
14.10 the prevailing wage rate, as defined in section 177.42.

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

14.12 Sec. 21. **[216F.084] WIND TURBINE LIGHTING SYSTEMS.**

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

14.15 (b) "Duration" means the length of time during which the lights of a wind turbine lighting
14.16 system are lit.

14.17 (c) "Intensity" means the brightness of the lights of a wind turbine lighting system.

14.18 (d) "Light-mitigating technology" means a sensor-based system that reduces the duration
14.19 or intensity of wind turbine lighting systems by:

14.20 (1) using radio frequency or other sensors to detect aircraft approaching one or more
14.21 wind turbines, or detecting visibility conditions at turbine sites; and

14.22 (2) automatically activating appropriate obstruction lights until the lights are no longer
14.23 needed by the aircraft and are turned off or dimmed.

14.24 A light-mitigating technology may include an audio feature that transmits an audible warning
14.25 message to provide a pilot additional information regarding a wind turbine the aircraft is
14.26 approaching.

14.27 (e) "Repowering project" has the meaning given in section 216B.243, subdivision 8,
14.28 paragraph (b).

14.29 (f) "Wind turbine lighting system" means a system of lights installed on an LWECS that
14.30 meets the applicable requirements of the Federal Aviation Administration.

15.1 Subd. 2. **Application.** This section applies to an LWECS issued a site permit or site
15.2 permit amendment by the commission under section 216F.04 or a county that has assumed
15.3 responsibility for issuing site permits and site permit amendments for an LWECS under
15.4 section 216F.08, provided that the application for a site permit or a site permit amendment
15.5 for an LWECS repowering project is filed after July 1, 2020.

15.6 Subd. 3. **Required lighting system.** (a) An LWECS subject to this section must be
15.7 equipped with a light-mitigating technology that meets the requirements established in
15.8 Chapter 14 of the Federal Aviation Administration's Advisory Circular 70/760-1, Obstruction
15.9 Marking and Lighting, as updated, unless the Federal Aviation Administration, after
15.10 reviewing the LWECS site plan, rejects the use of such a light-mitigating technology for
15.11 the LWECS. A light-mitigating technology installed on a wind turbine in Minnesota must
15.12 be purchased from a vendor approved by the Federal Aviation Administration.

15.13 (b) If the Federal Aviation Administration, after reviewing the LWECS site plan, rejects
15.14 the use of a light-mitigating technology for the LWECS under paragraph (a), the LWECS
15.15 must be equipped with a wind turbine lighting system that minimizes the duration or intensity
15.16 of the lighting system while maintaining full compliance with the lighting standards
15.17 established in Chapter 13 of the Federal Aviation Administration's Advisory Circular
15.18 70/760-1, Obstruction Marking and Lighting, as updated.

15.19 Subd. 4. **Exemptions.** (a) The Public Utilities Commission or a county that has assumed
15.20 permitting authority under section 216F.08 shall grant an owner of an LWECS an exemption
15.21 from the provisions of subdivision 3, paragraph (a), if the Federal Aviation Administration
15.22 denies the owner's application to equip an LWECS with a light-mitigating technology.

15.23 (b) The Public Utilities Commission or a county that has assumed permitting authority
15.24 under section 216F.08 shall grant an owner of an LWECS an exemption from or an extension
15.25 of time to comply with the provisions of subdivision 3, paragraph (a), if, after notice and
15.26 public hearing, the owner of the LWECS demonstrates to the satisfaction of the commission
15.27 or county that:

15.28 (1) equipping an LWECS with a light-mitigating technology is technically infeasible;

15.29 (2) equipping an LWECS with a light-mitigating technology imposes a significant
15.30 financial burden on the permittee; or

15.31 (3) a vendor approved by the Federal Aviation Administration cannot deliver a
15.32 light-mitigating technology to the LWECS owner in a reasonable amount of time.

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

16.1 Sec. 22. Minnesota Statutes 2018, section 216H.02, is amended by adding a subdivision
16.2 to read:

16.3 Subd. 1b. **Emissions-reduction goals; transmission resources.** It is the policy of the
16.4 state that sufficient electric transmission infrastructure be constructed in a timely manner
16.5 in order to facilitate the state's meeting the greenhouse gas emissions reduction goals
16.6 established in subdivision 1.

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

16.8 Sec. 23. **COORDINATED ELECTRIC TRANSMISSION STUDY.**

16.9 (a) The commissioner of commerce shall request the Midcontinent Independent System
16.10 Operator (MISO) to conduct an engineering study of the impacts on reliability and estimated
16.11 costs of operational changes and enhancements to the transmission system necessary to
16.12 support increased use of carbon-free electrical generation sources for Minnesota and
16.13 throughout the MISO footprint, along with the possible eventual retirement of existing
16.14 generation resources serving Minnesota customers.

16.15 (b) If the request is accepted, MISO is responsible for completing the study work, with
16.16 the support of the electric utilities subject to transmission planning under Minnesota Rules,
16.17 chapter 7848. Prior to the start of the study, MISO shall appoint a technical review committee
16.18 with experience and expertise in electric transmission system engineering, power system
16.19 operation, and renewable and carbon-free energy technologies to review the study's proposed
16.20 methods, work plan, models, and preliminary and near final results. The technical review
16.21 committee shall be chaired by a representative from MISO and include representatives from
16.22 Minnesota electric utilities, including one representative from a utility that owns nuclear
16.23 generation, one from a generation and transmission cooperative, and one from a municipal
16.24 utility. In addition, MISO will work with state utility regulators, as well as stakeholders
16.25 from across the electricity industry, nongovernmental organization, consumer advocates,
16.26 and labor representatives.

16.27 (c) To the extent possible, the study shall integrate and optimize the study and resulting
16.28 potential transmission projects with previous and current study efforts, coordinate with
16.29 neighboring regions to the MISO footprint and adjacent regional transmission organizations,
16.30 and identify barriers, challenges, and opportunities.

16.31 (d) The study shall include, but is not limited to:

16.32 (1) establishing scenarios for study of increased carbon-free energy resources and energy
16.33 storage and retirement of existing generation;

- 17.1 (2) identifying new power system operating challenges and possible mitigation strategies
17.2 and areas where new strategies will be required but are not yet discernible;
- 17.3 (3) developing conceptual level plans of the required new and modified transmission,
17.4 including time frames and indicative cost;
- 17.5 (4) identifying when ascertainable, likely new significant transmission projects or
17.6 modifications, including time frames and indicative cost; and
- 17.7 (5) identifying functional requirements for and time frames when nontransmission
17.8 technology may be needed to augment the transmission in conceptual plan and the new
17.9 projects or modifications.
- 17.10 (e) The first meeting of the technical review committee shall be held no later than June
17.11 15, 2020, and the study should be complete, with a comprehensive report submitted to the
17.12 Public Utilities Commission no later than December 1, 2021."
- 17.13 Amend the title accordingly