

**SENATE**  
**STATE OF MINNESOTA**  
**NINETY-FIRST SESSION**

**S.F. No. 1456**

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1.1 A bill for an act

1.2 relating to establishing the Clean Energy First Act; requiring electric utilities to

1.3 meet resource needs using clean energy resources; amending Minnesota Statutes

1.4 2018, sections 216B.03; 216B.16, subdivisions 6, 13, by adding a subdivision;

1.5 216B.1645, subdivisions 1, 2; 216B.1691, subdivision 9; 216B.2422, subdivisions

1.6 1, 2, 4, 5, by adding subdivisions; proposing coding for new law in Minnesota

1.7 Statutes, chapters 216B; 216C.

1.8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.9 Section 1. **TITLE.**

1.10 Sections 2 to 18 shall be referred to as the "Clean Energy First Act".

1.11 Sec. 2. Minnesota Statutes 2018, section 216B.03, is amended to read:

1.12 **216B.03 REASONABLE RATE.**

1.13 Every rate made, demanded, or received by any public utility, or by any two or more

1.14 public utilities jointly, shall be just and reasonable. Rates shall not be unreasonably

1.15 preferential, unreasonably prejudicial, or discriminatory, but shall be sufficient, equitable,

1.16 and consistent in application to a class of consumers. To the maximum reasonable extent,

1.17 the commission shall set rates ~~to encourage~~ based on cost of service, while considering

1.18 noncost factors such as economic growth, job retention, energy conservation, and renewable

1.19 energy use and to further the goals of sections 216B.164, 216B.1696, 216B.241, and 216C.05.

1.20 To calculate cost of service, an investor-owned utility shall use, and the commission shall

1.21 approve and base rates upon, a class cost of service study that utilizes: (i) a single coincident

1.22 peak methodology, based upon the single peak contribution by class at the time of the public

1.23 utility's system peak, to classify and allocate fixed production and transmission costs; (ii)

2.1 a minimum system study to classify and allocate distribution costs; and (iii) an E8760  
 2.2 allocator for energy costs. Any doubt as to reasonableness should be resolved in favor of  
 2.3 the consumer. For rate-making purposes a public utility may treat two or more municipalities  
 2.4 served by it as a single class wherever the populations are comparable in size or the conditions  
 2.5 of service are similar.

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

2.7 Sec. 3. **[216B.035] COMPETITIVE RATE FOR TRANSMISSION LEVEL**  
 2.8 **CUSTOMERS.**

2.9 Notwithstanding any other provision of this chapter, for customers that either take service  
 2.10 at a voltage equal to or greater than 69,000 volts or impose a peak demand of greater than  
 2.11 20 megawatts on the utility's system, the average delivered cost of electric energy shall be  
 2.12 at least 20 percent below the national average. For purposes of this section, the national  
 2.13 average shall be as reported by the U.S. Energy Information Administration for industrial  
 2.14 customers of full-service providers.

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

2.16 Sec. 4. Minnesota Statutes 2018, section 216B.16, subdivision 6, is amended to read:

2.17 Subd. 6. **Factors considered, generally.** The commission, in the exercise of its powers  
 2.18 under this chapter to determine just and reasonable rates for public utilities, shall give due  
 2.19 consideration to the public need for adequate, efficient, and reasonable service and to the  
 2.20 need of the public utility for revenue sufficient to enable it to meet the cost of furnishing  
 2.21 the service, including adequate provision for depreciation of its utility property used and  
 2.22 useful in rendering service to the public, and to earn a fair and reasonable return upon the  
 2.23 investment in such property. In determining the rate base upon which the utility is to be  
 2.24 allowed to earn a fair rate of return, the commission shall give due consideration to evidence  
 2.25 of the cost of the property when first devoted to public use, to prudent acquisition cost to  
 2.26 the public utility less appropriate depreciation on each, to construction work in progress, to  
 2.27 offsets in the nature of capital provided by sources other than the investors, and to other  
 2.28 expenses of a capital nature. For purposes of determining rate base, the commission shall  
 2.29 consider the original cost of utility property included in the base and shall make no allowance  
 2.30 for its estimated current replacement value. If the commission orders a generating facility  
 2.31 to terminate its operations before the end of the facility's physical life in order to comply  
 2.32 with a specific state or federal energy statute or policy, or as part of a resource planning

3.1 order under section 216B.2422, the commission ~~may~~ must allow the public utility to recover  
3.2 any positive net book value of the facility as determined by the commission.

3.3 Sec. 5. Minnesota Statutes 2018, section 216B.16, subdivision 13, is amended to read:

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

3.8 Sec. 6. Minnesota Statutes 2018, section 216B.16, is amended by adding a subdivision to  
3.9 read:

3.10 Subd. 20. **Rate cap for commercial and industrial class.** In allocating costs and  
3.11 designing rates for retail customers under this section, the commission shall ensure that the  
3.12 rates for a utility's commercial and industrial class is at least five percent below the national  
3.13 average for that customer class, consistent with the goal established in section 216C.05,  
3.14 subdivision 4, and inclusive of the costs charged to this customer class under rate schedules  
3.15 providing for the automatic adjustment of charges to recover expenses or costs outside of  
3.16 a rate case approved under this chapter.

3.17 Sec. 7. Minnesota Statutes 2018, section 216B.1645, subdivision 1, is amended to read:

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

3.24 (1) transmit the electricity generated from sources developed under those sections that  
3.25 is ultimately used to provide service to the utility's retail customers, including studies  
3.26 necessary to identify new transmission facilities needed to transmit electricity to Minnesota  
3.27 retail customers from generating facilities constructed to satisfy the renewable energy  
3.28 objectives and standards, provided that the costs of the studies have not been recovered  
3.29 previously under existing tariffs and the utility has filed an application for a certificate of  
3.30 need or for certification as a priority project under section 216B.2425 for the new  
3.31 transmission facilities identified in the studies;

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

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

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

4.9 Sec. 8. Minnesota Statutes 2018, section 216B.1645, subdivision 2, is amended to read:

4.10 Subd. 2. **Cost recovery.** The expenses incurred by the utility over the duration of the  
 4.11 approved contract or useful life of the investment ~~and~~ expenditures made pursuant to section  
 4.12 116C.779 ~~shall be~~, and efforts to maximize employment of local workers to construct and  
 4.13 maintain generation facilities that supply power to the utility's customers, are recoverable  
 4.14 from the ratepayers of the utility, to the extent they are not offset by utility revenues  
 4.15 attributable to the contracts, investments, or expenditures. Upon petition by a public utility,  
 4.16 the commission shall approve or approve as modified a rate schedule providing for the  
 4.17 automatic adjustment of charges to recover the expenses or costs approved by the commission  
 4.18 under subdivision 1, which, in the case of transmission expenditures, are limited to the  
 4.19 portion of actual transmission costs that are directly allocable to the need to transmit power  
 4.20 from the renewable sources of energy. The commission may not approve recovery of the  
 4.21 costs for that portion of the power generated from sources governed by this section that the  
 4.22 utility sells into the wholesale market.

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

4.24 Subd. 9. **Local benefits.** The commission shall take all reasonable actions within its  
 4.25 statutory authority to ensure this section is implemented to maximize benefits to Minnesota  
 4.26 citizens and local workers as defined in section 216B.2422, subdivision 1, balancing factors  
 4.27 such as local ownership of or participation in energy production, local job impacts as defined  
 4.28 in section 216B.2422, subdivision 1, development and ownership of eligible energy  
 4.29 technology facilities by independent power producers, Minnesota utility ownership of  
 4.30 eligible energy technology facilities, the costs of energy generation to satisfy the renewable  
 4.31 standard, and the reliability of electric service to Minnesotans.

5.1 Sec. 10. Minnesota Statutes 2018, section 216B.2422, subdivision 1, is amended to read:

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

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

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

5.9 (1) wind;

5.10 (2) solar;

5.11 (3) geothermal;

5.12 (4) hydro;

5.13 (5) trees or other vegetation;

5.14 (6) landfill gas and mixed municipal solid waste or refuse-derived fuel from mixed  
5.15 municipal solid waste; or

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

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

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

5.27 (f) "Clean energy resource" means renewable energy, an energy storage system, and  
5.28 energy efficiency and load management, as defined in section 216B.241, subdivision 1, or  
5.29 a carbon-free resource, as defined under paragraph (g) and determined by the commission  
5.30 under subdivision 4, paragraph (h).

6.1 (g) "Carbon-free resource" means a generation technology that, when operating, does  
 6.2 not contribute to statewide greenhouse gas emissions, as defined in section 216H.01,  
 6.3 subdivision 2. Carbon-free resource includes power generation utilizing carbon capture and  
 6.4 storage technology.

6.5 (h) "Energy storage system" means a commercially available technology that:

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

6.7 (i) store energy and deliver the stored energy for use at a later time; or

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

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

6.13 (3) achieves any of the following:

6.14 (i) reduces peak electrical demand;

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

6.17 (iii) improves the reliable operation of the electrical transmission or distribution systems;  
 6.18 or

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

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

6.23 (j) "Local job impacts" means the impacts of an integrated resource plan, a certificate  
 6.24 of need, a power purchase agreement, or commission approval of a new or refurbished  
 6.25 energy facility on the availability of construction employment opportunities to local workers.

6.26 (k) "Local workers" means workers employed to construct and maintain energy  
 6.27 infrastructure that are Minnesota residents, residents of the utility's service territory, or who  
 6.28 permanently reside within 150 miles of a proposed new or refurbished energy facility.

6.29 Sec. 11. Minnesota Statutes 2018, section 216B.2422, subdivision 2, is amended to read:

6.30 Subd. 2. **Resource plan filing and approval.** (a) A utility shall file a resource plan with  
 6.31 the commission periodically in accordance with rules adopted by the commission. The

7.1 commission shall approve, reject, or modify the plan of a public utility, as defined in section  
 7.2 216B.02, subdivision 4, consistent with the public interest. The commission's analysis of a  
 7.3 resource plan filed by an investor-owned utility must consider the economy, job growth,  
 7.4 and job retention.

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

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

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

7.16 Subd. 4. **Preference for ~~renewable energy facility~~ clean energy resources.** (a) The  
 7.17 commission shall not approve a new or refurbished nonrenewable energy facility in  
 7.18 Minnesota in an integrated resource plan or a certificate of need, pursuant to section  
 7.19 216B.243, nor shall the commission approve a power purchase agreement for a new or  
 7.20 refurbished asset subject to its jurisdiction or allow rate recovery pursuant to section 216B.16  
 7.21 for such a nonrenewable energy facility, unless the utility has demonstrated that a renewable  
 7.22 energy facility, alone or in combination with other clean energy resources, is not in the  
 7.23 public interest.

7.24 (b) When making the public interest determination under paragraph (a), the commission  
 7.25 must consider:

7.26 (1) whether the record in the resource plan, proposed certificate of need, or proposed  
 7.27 power purchase agreement for the new or refurbished nonrenewable energy facility in  
 7.28 Minnesota demonstrates the utility is unable affordably and reliably to meet the resource  
 7.29 need the facility is proposed for solely through the addition of clean energy resources, after  
 7.30 evaluation by the utility, the department, and other parties to the docket;

7.31 (†) (2) whether the resource plan, proposed certificate of need, or proposed power  
 7.32 purchase agreement helps the utility achieve the greenhouse gas reduction goals under  
 7.33 section 216H.02, the renewable energy standard under section 216B.1691, or the solar

8.1 energy standard under section 216B.1691, subdivision 2f, as well as the resource plan's  
8.2 impact on the economy, job growth, and job retention;

8.3 ~~(2)~~ (3) impacts on local and regional grid reliability;

8.4 ~~(3)~~ (4) utility and ratepayer impacts resulting from the intermittent nature of renewable  
8.5 energy facilities, including but not limited to the costs of purchasing wholesale electricity  
8.6 in the market and the costs of providing ancillary services; and

8.7 ~~(4)~~ (5) utility and ratepayer impacts resulting from reduced exposure to fuel price  
8.8 volatility, changes in transmission costs, portfolio diversification, and environmental  
8.9 compliance costs, as well as utility and ratepayer impacts that might result from additional  
8.10 investment in nonrenewable energy facilities; and

8.11 (6) impacts of resource options on customers' bills and utility rates; any doubt regarding  
8.12 the various resource options before the commission must be resolved in favor of supporting  
8.13 the economy, job growth, and job retention.

8.14 (c) If the commission finds the utility has demonstrated a renewable energy facility,  
8.15 alone or in combination with other clean energy resources, is not in the public interest under  
8.16 paragraph (a), the commission may approve a utility's proposal for a new or refurbished  
8.17 nonrenewable energy facility at the size necessary to ensure reliable and affordable service  
8.18 to the utility's customers.

8.19 (d) This subdivision does not apply to an energy facility approved by the legislature  
8.20 under Laws 2017, chapter 5, or to commission approval of an affiliated interest agreement  
8.21 for an energy facility in docket number E015/AI-17-568.

8.22 (e) When evaluating the contribution of proposed resources to local and regional  
8.23 reliability, the commission must consider the ability of proposed resources to provide (1)  
8.24 essential reliability services needed by utility customers or the electric system, including,  
8.25 to the extent feasible, frequency response, balancing services, and voltage control, and (2)  
8.26 energy and capacity.

8.27 (f) If the commission approves a resource plan that includes the retirement of a  
8.28 nonrenewable energy facility owned by a public utility, the public utility shall be entitled  
8.29 to own the generation, transmission, and other facilities necessary to replace the accredited  
8.30 capacity of the retiring facility, provided:

8.31 (1) the resource plan of a public utility with more than 200,000 retail electric customers  
8.32 in Minnesota results in having at least 85 percent of the public utility's electric supply come

9.1 from resources that do not contribute to statewide greenhouse gas emissions, as defined in  
9.2 section 216H.01, subdivision 2, by the year 2030 and thereafter;

9.3 (2) the resource plan for any public utility with between 50,000 and 200,000 retail electric  
9.4 customers in Minnesota results in having at least 65 percent of the public utility's electric  
9.5 supply attributable to serving Minnesota customers, come from resources that do not  
9.6 contribute to statewide greenhouse gas emissions, as defined in section 216H.01, subdivision  
9.7 2, by the year 2035 and thereafter; and

9.8 (3) each public utility demonstrates its ownership of replacement resources is in the  
9.9 public interest, considering customer impacts and benefits. The commission must give  
9.10 special consideration to a public utility's proposal under this paragraph if the proposal  
9.11 replaces the capacity of a retiring nonrenewable energy facility entirely with clean energy  
9.12 resources.

9.13 (g) Nothing in this section impacts a decision to continue operating a nuclear facility  
9.14 that is generating energy in Minnesota as of June 1, 2019. If a decision is made to retire an  
9.15 existing nuclear unit, the process in paragraphs (a) to (c) and (e) applies to the identification  
9.16 of replacement resources.

9.17 (h) The commission may, by order, add to the list of resources it determines to be clean  
9.18 energy resources for the purposes of this section upon a determination that the resource is  
9.19 carbon free and cost competitive when compared with other carbon-free alternatives.

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

9.22 Subd. 4a. **Preference for local job creation.** As a part of its resource plan filing, a utility  
9.23 must report, to the extent known, on associated local job impacts and the steps the utility  
9.24 and its energy suppliers and contractors are taking to maximize the availability of construction  
9.25 employment opportunities for local workers. The commission must consider local job  
9.26 impacts and give preference to proposals that maximize the creation of construction  
9.27 employment opportunities for local workers, consistent with the public interest, when  
9.28 evaluating any utility proposal that involves the selection or construction of facilities used  
9.29 to generate or deliver energy to serve the utility's customers, including but not limited to an  
9.30 integrated resource plan, a certificate of need, a power purchase agreement, or commission  
9.31 approval of a new or refurbished electric generation facility.

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

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

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

10.11 (c) A certificate of need proceeding is also not required for an electric power generating  
10.12 plant that has been selected in a bidding process approved or established by the commission,  
10.13 or such other selection process approved by the commission, to satisfy, in whole or in part,  
10.14 the wind power mandate of section 216B.2423 or the biomass mandate of section 216B.2424.

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

10.17 Subd. 7. **Resource planning conference.** The commissioner of commerce may, as  
10.18 circumstances warrant, convene utilities subject to this section and stakeholders interested  
10.19 in resource planning to (1) facilitate the sharing of best practices and planning innovations  
10.20 from one utility resource plan to the next, (2) help resolve issues that impact all utilities  
10.21 during the resource plan development process, (3) and promote coordination across resource  
10.22 plans. The commissioner must seek input from likely attendees regarding topics the resource  
10.23 planning conference should cover. In addition, the agenda for the conference should review  
10.24 key decisions by the Federal Energy Regulatory Commission and the North American  
10.25 Electric Reliability Corporation that could impact resource planning, as well as recent and  
10.26 ongoing transmission studies and market innovations from the Midcontinent Independent  
10.27 System Operator.

10.28 Sec. 16. Minnesota Statutes 2018, section 216B.2422, is amended by adding a subdivision  
10.29 to read:

10.30 Subd. 8. **Ratepayer impact.** The commission may not approve a resource plan under  
10.31 this section that it determines will cause costs to increase more than a reasonable forecast  
10.32 of the rate of inflation over the term of the resource plan.

11.1 Sec. 17. [216C.45] POWER PLANT HOST COMMUNITY TRANSITION  
11.2 PLANNING.

11.3 The commissioner of commerce must coordinate with the commissioner of labor and  
11.4 industry and the commissioner of employment and economic development to develop plans,  
11.5 programs, and other recommendations to mitigate the impacts on host communities in  
11.6 Minnesota and workers resulting from the eventual retirement of large generation facilities.  
11.7 The commissioners must coordinate this work with representatives of the local government  
11.8 units that host large generation facilities; the workers at large generation facilities, including  
11.9 full-time employees and contractors; and the utilities that own large generation facilities.

11.10 Sec. 18. COORDINATED ELECTRIC TRANSMISSION STUDY.

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

11.17 (b) If the request is accepted, MISO is responsible for completing the study work, with  
11.18 the support of the electric utilities subject to transmission planning under Minnesota Rules,  
11.19 chapter 7848. Prior to the start of the study, MISO shall appoint a technical review committee  
11.20 with experience and expertise in electric transmission system engineering, power system  
11.21 operation, and renewable and carbon-free energy technologies to review the study's proposed  
11.22 methods, work plan, models, and preliminary and near final results. The technical review  
11.23 committee shall be chaired by a representative from MISO and include representatives from  
11.24 Minnesota electric utilities, including one representative from a utility that owns nuclear  
11.25 generation, one from a generation and transmission cooperative, and one from a municipal  
11.26 utility. In addition, MISO will work with state utility regulators, as well as stakeholders  
11.27 from across the electricity industry, nongovernmental organization, consumer advocates,  
11.28 and labor representatives.

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

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

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

12.3 (2) identifying new power system operating challenges and possible mitigation strategies  
12.4 and areas where new strategies will be required but are not yet discernible;

12.5 (3) developing conceptual level plans of the required new and modified transmission,  
12.6 including timeframes and indicative cost;

12.7 (4) identifying when ascertainable, likely new significant transmission projects or  
12.8 modifications, including timeframes and indicative cost; and

12.9 (5) identifying functional requirements for and timeframes when nontransmission  
12.10 technology may be needed to augment the transmission in conceptual plan and the new  
12.11 projects or modifications.

12.12 (e) The first meeting of the technical review committee shall be held no later than June  
12.13 15, 2019, and the study should be complete, with a comprehensive report submitted to the  
12.14 Public Utilities Commission no later than December 1, 2020.

12.15 Sec. 19. **EFFECTIVE DATE.**

12.16 Sections 1 to 18 are effective August 1, 2019, and apply only to dockets initiated at the  
12.17 Public Utilities Commission on or after that date.