

1.1 A bill for an act
1.2 relating to energy; requiring additional information in a public utility's resource
1.3 plan; directing public utilities to file a virtual power plant tariff and program with
1.4 the Minnesota Public Utilities Commission; providing for cost recovery; requiring
1.5 reports; amending Minnesota Statutes 2024, section 216B.2422, subdivision 2;
1.6 proposing coding for new law in Minnesota Statutes, chapter 216B.

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

1.8 Section 1. Minnesota Statutes 2024, section 216B.2422, subdivision 2, is amended to read:

1.9 Subd. 2. **Resource plan filing and approval.** (a) A utility shall file a resource plan with
1.10 the commission periodically in accordance with rules adopted by the commission. The
1.11 commission shall approve, reject, or modify the plan of a public utility, as defined in section
1.12 216B.02, subdivision 4, consistent with the public interest.

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

1.19 (c) As a part of its resource plan filing, a utility shall include the least cost plan for
1.20 meeting 50 and 75 percent of all energy needs from both new and refurbished generating
1.21 facilities through a combination of conservation and renewable energy resources.

1.22 (d) A public utility must include in an integrated resource plan filing an estimate of (1)
1.23 the reduction in the public utility's winter and summer system peak attributable to

2.1 implementing a virtual power plant program approved under section 216B.2429, and (2)
2.2 the cost of the virtual power plant program.

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

2.4 Sec. 2. **[216B.2429] VIRTUAL POWER PLANT TARIFF AND PROGRAM.**

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

2.7 (b) "Aggregator" means an entity that enters into a power purchase agreement to provide
2.8 to a public utility electricity that is aggregated from eligible technology devices owned by
2.9 utility customers enrolled in a virtual power plant program.

2.10 (c) "Demand response measure" has the meaning given to "load management" in section
2.11 216B.2402.

2.12 (d) "Device" means a piece of equipment that is an eligible technology owned by a
2.13 participant.

2.14 (e) "Distributed energy resource" means an eligible technology device that generates
2.15 electricity and whose capacity does not exceed ten megawatts.

2.16 (f) "Eligible technology" means technology that is capable of being activated or
2.17 dispatched under a virtual power plant program in order to address a grid event. Eligible
2.18 technology includes but is not limited to:

2.19 (1) solar photovoltaic devices;

2.20 (2) energy storage systems;

2.21 (3) electric vehicles;

2.22 (4) smart thermostats;

2.23 (5) heat pumps; and

2.24 (6) demand response measures.

2.25 (g) "Energy storage system" has the meaning given in section 216B.2422, subdivision
2.26 1.

2.27 (h) "Greenhouse gas" means atmospheric emissions of carbon dioxide, methane, nitrous
2.28 oxide, hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride.

2.29 (i) "Grid event" means a shortage of electricity supply that may be addressed by the
2.30 dispatch or activation of devices enrolled in a virtual power plant program.

3.1 (j) "Grid system" means a public utility's interconnected network of electricity generators
 3.2 and transmission and distribution lines that deliver electricity to ultimate consumers.

3.3 (k) "Participant" means an owner of an eligible technology device enrolled in a virtual
 3.4 power plant program.

3.5 (l) "Peaker plant" means a power plant that operates to supplement electricity supply
 3.6 for short periods only during a system peak.

3.7 (m) "Performance-based compensation" means a system of payments made to participants
 3.8 and aggregators based on the value of the electricity dispatched or saved through activating
 3.9 demand response measures during a grid event.

3.10 (n) "Smart thermostat" means a thermostat that can be controlled remotely via the Internet.

3.11 (o) "Solar photovoltaic device" has the meaning given in section 216C.06, subdivision
 3.12 16.

3.13 (p) "System peak" means the period of time during which electricity demand on a grid
 3.14 system is highest.

3.15 (q) "Virtual power plant program" means a program that aggregates electricity from
 3.16 distributed energy resources and activates demand response measures to address grid events.

3.17 Subd. 2. **Required filing; objectives; review.** No later than, 2026, each public
 3.18 utility must file with the commission a virtual power plant tariff and program that are
 3.19 consistent with the requirements of this section and designed to achieve the following goals:

3.20 (1) reduce demand for grid-supplied electricity during system peaks;

3.21 (2) make renewable energy generated during off-peak periods available for use during
 3.22 system peaks;

3.23 (3) lower ratepayer bills by reducing utility market purchases at elevated prices during
 3.24 system peaks;

3.25 (4) reduce emissions of greenhouse gases and other air pollutants;

3.26 (5) optimize the use of existing generation and energy storage assets;

3.27 (6) improve the resiliency and reliability of the grid system;

3.28 (7) avoid or defer the construction of electric generation, distribution, or transmission
 3.29 infrastructure; and

3.30 (8) reduce the use of fossil-fuel-fired peaker plants.

4.1 Subd. 3. Content of tariff. (a) A virtual power plant tariff and program filed under this
4.2 section must contain, at a minimum:

4.3 (1) a description of the goals of the virtual power plant program and the role the program
4.4 plays in meeting the public utility's grid system needs;

4.5 (2) provisions to enroll and manage participants by aggregators and, if applicable, by
4.6 the public utility directly;

4.7 (3) provisions to operate a virtual power plant program, including how the public utility
4.8 communicates with aggregators and participants during a grid event; and

4.9 (4) provisions that, notwithstanding section 216B.164, participants must be compensated
4.10 at the applicable rate established under the tariff for electricity exported to the public utility
4.11 or demand reductions made during a grid event.

4.12 (b) The commission may require a virtual power plant tariff and program filed under
4.13 this section to contain:

4.14 (1) provisions that describe how:

4.15 (i) performance measurement and performance verification data are delivered to the
4.16 public utility;

4.17 (ii) performance-based compensation payments are calculated and issued by the public
4.18 utility; and

4.19 (iii) disputes regarding performance-based compensation are settled;

4.20 (2) descriptions regarding how performance-based compensation is designed to reflect
4.21 the full value of services at the specific locations where an eligible technology is utilized.

4.22 The value must include, at a minimum:

4.23 (i) local and system peak demand reduction; and

4.24 (ii) avoiding or deferring transmission or distribution system upgrades or capacity
4.25 expansion;

4.26 (3) provisions that prohibit a participant from being compensated for providing the same
4.27 energy resources more than once;

4.28 (4) provisions to measure and verify energy storage system performance directly at the
4.29 site of the energy storage system without requiring the installation of an additional meter;
4.30 and

4.31 (5) operational parameters describing:

5.1 (i) the minimum and maximum numbers of annual grid events during which the public
5.2 utility may dispatch or activate enrolled resources;

5.3 (ii) the months of the year during which grid events may occur;

5.4 (iii) the days of the week during which grid events may occur;

5.5 (iv) the times of the day during which grid events may occur;

5.6 (v) the maximum duration of grid events; and

5.7 (vi) the minimum advance notification of grid events to participants; and

5.8 (6) any other information the commission determines is necessary to efficiently operate
5.9 a virtual power plant program.

5.10 Subd. 4. **Other operational requirements.** (a) An aggregator must enter into a power
5.11 purchase agreement with a public utility in order to participate in a virtual power plant
5.12 program.

5.13 (b) A public utility may serve as an aggregator.

5.14 (c) A public utility customer may enroll with an aggregator to participate in a virtual
5.15 power plant program at the time the customer's distributed energy resource begins operations.

5.16 (d) A participant must not be excluded from enrollment in a virtual power plant program
5.17 as a result of receiving financial incentives from the public utility for energy, capacity, or
5.18 other grid services under other programs offered by the public utility.

5.19 (e) A public utility must not require collateral from a participant or aggregator as a
5.20 requirement to participate in a virtual power plant program.

5.21 Subd. 5. **Commission duties.** (a) The commission may (1) approve, reject, or modify
5.22 a virtual power plant tariff filed under this section, and (2) modify an approved tariff after
5.23 notice and hearing.

5.24 (b) The commission must establish reasonable and appropriate standards to protect the
5.25 interests of virtual power plant program participants. The standards may include requirements
5.26 for registration forms, standard contract terms and conditions, payment terms, warranties,
5.27 disclosure forms, and other requirements.

5.28 (c) The commission must establish standards and procedures governing energy data held
5.29 by participants and public utilities that must be shared with aggregators in order to ensure
5.30 a virtual power plant program's efficient operation. An aggregator must not sell or use, for

6.1 any other purpose, data from participants or public utilities gathered for virtual power plant
6.2 program use.

6.3 (d) The commission may establish financial performance incentives for public utilities
6.4 that achieve the system peak reduction targets under subdivision 6.

6.5 (e) The commission must develop a process to amend performance-based compensation
6.6 rates to use when amending performance-based compensation rates is warranted.

6.7 Subd. 6. **System peak reduction targets.** No later than 2028, a public utility, by
6.8 implementing a virtual power plan and other programs designed to reduce the public utility's
6.9 system peak energy demand, must reduce the public utility's winter and summer peaks by
6.10 at least ten percent from the base year 2025. The commission must establish new targets
6.11 for subsequent years, provided the targets are cost effective.

6.12 Subd. 7. **Modification or delay.** The commission may modify or delay a virtual power
6.13 plant program's implementation if the commission determines doing so is in the public
6.14 interest. When making a determination under this subdivision, the commission must consider
6.15 whether the system peak reduction targets established under subdivision 6 are technically
6.16 and economically feasible.

6.17 Subd. 8. **Cost recovery.** Notwithstanding any other provision of this chapter, the
6.18 commission may approve cost recovery under section 216B.16, including an appropriate
6.19 rate of return, for any prudent and reasonable investments made or expenses incurred by a
6.20 public utility to administer and implement a virtual power plant program approved by the
6.21 commission under this section.

6.22 Subd. 9. **Report.** Beginning January 31, 2028, and each January 31 thereafter, a public
6.23 utility must file an annual report to the commission and to the chairs and ranking minority
6.24 members of the senate and house of representatives committees with primary jurisdiction
6.25 over energy policy. The report must include, at a minimum:

6.26 (1) the total capacity enrolled under the tariff approved by the commission under this
6.27 section, reported separately by eligible technology type, customer class, and whether the
6.28 participant operated under an aggregator or directly through the public utility;

6.29 (2) the system peak reduction attributable to the virtual power plant program;

6.30 (3) contributions to other grid services made by the virtual power plant program;

6.31 (4) recommendations to increase participation in the virtual power plant program; and

6.32 (5) other information requested by the commission.

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