

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

S.F. No. 421

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D-PG

Introduction and first reading
Referred to Energy and Utilities Finance and Policy

OFFICIAL STATUS

1.1 A bill for an act
1.2 relating to energy; establishing the Natural Gas Innovation Act; encouraging natural
1.3 gas utilities to develop innovative resources; proposing coding for new law in
1.4 Minnesota Statutes, chapter 216B.

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

1.6 Section 1. TITLE.

1.7 This bill may be referred to as the "Natural Gas Innovation Act."

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

1.9 Sec. 2. [216B.2427] NATURAL GAS UTILITY INNOVATION PLANS.

1.10 Subdivision 1. Definitions. (a) For the purposes of this section, the terms defined in this
1.11 subdivision have the meanings given.

1.12 (b) "Biogas" means gas created by the anaerobic digestion of biomass, gasification of
1.13 biomass, or other effective conversion processes.

1.14 (c) "Carbon capture and utilization" means the capture of greenhouse gases that would
1.15 otherwise be released into the atmosphere and the use of the captured greenhouse gases to
1.16 create industrial or commercial products for sale.

1.17 (d) "District energy" means a network of hot- and cold-water pipes used to provide
1.18 thermal energy to multiple buildings.

1.19 (e) "Energy efficiency" has the meaning given in section 216B.241, subdivision 1,
1.20 paragraph (f). Energy efficiency does not include energy conservation investments the

2.1 commission determines could reasonably be included in the natural gas utility's conservation
2.2 improvement program under section 216B.241.

2.3 (f) "Innovative resource" means biogas, renewable natural gas, power-to-hydrogen
2.4 power-to-ammonia, carbon capture and utilization, strategic electrification, district energy
2.5 systems, and energy efficiency.

2.6 (g) "Lifecycle greenhouse gas emissions" means the emissions of an energy resource
2.7 associated with the production, processing, transmission, and consumption of energy
2.8 associated with the energy resource.

2.9 (h) "Natural gas utility" or "utility" means a public utility, as defined in section 216B.02,
2.10 subdivision 4, that provides natural gas sales or transportation services to customers in
2.11 Minnesota.

2.12 (i) "Power-to-ammonia" means the creation of ammonia from hydrogen created via
2.13 power-to-hydrogen using a process that has lower lifecycle greenhouse gas intensity than
2.14 conventional geologic natural gas.

2.15 (j) "Power-to-hydrogen" means the use of electricity generated by (1) an eligible energy
2.16 technology, as defined in section 216B.1691, subdivision 1, paragraph (a), or (2) renewable
2.17 energy, as defined in section 216B.2422, subdivision 1, to create hydrogen.

2.18 (k) "Renewable natural gas" means biogas that has been processed so that it (1) is
2.19 interchangeable with conventional natural gas, and (2) has lower lifecycle greenhouse gas
2.20 intensity than conventional geologic natural gas.

2.21 (l) "Strategic electrification" means the installation of electric end-use equipment,
2.22 provided the installation (1) results in a net reduction in statewide greenhouse gas emissions,
2.23 as defined in section 216H.241, subdivision 2, over the life of the equipment as compared
2.24 to the most efficient commercially available natural gas alternative, and (2) is installed and
2.25 operated in a manner that improves the customer's electric utility's load factor.

2.26 (m) "Total incremental cost" means:

2.27 (1) the sum of:

2.28 (i) capital investments in infrastructure for the production, processing, pipeline
2.29 interconnection, storage, and distribution of innovative resources included in a utility
2.30 innovation plan approved under subdivision 2;

3.1 (ii) net operating costs associated with capital investments in infrastructure for the
3.2 production, processing, pipeline interconnection, storage, and distribution of innovative
3.3 resources included in a utility innovation plan approved under subdivision 2;

3.4 (iii) the incremental cost to procure innovative resources from third parties; and

3.5 (iv) the incremental costs to administer programs included in a utility innovation plan
3.6 approved under subdivision 2;

3.7 (2) less the sum of:

3.8 (i) any value received by the natural gas utility upon the resale of the innovative resources
3.9 or the innovative resource's by-products, including any environmental credits included with
3.10 the resale of the renewable gaseous fuels or value received by the natural gas utility when
3.11 innovative resources are used as vehicle fuel; and

3.12 (ii) any cost savings achieved through avoidance of conventional natural gas purchases,
3.13 including but not limited to any avoided commodity purchases or avoided pipeline costs.

3.14 Subd. 2. **Innovation plans.** (a) A natural gas utility may file an innovation plan with
3.15 the commission. The utility's recommended plan must describe or include, as applicable,
3.16 the following components:

3.17 (1) the recommended innovative resource or resources the utility plans to implement to
3.18 advance the state's goals established in sections 216C.05, subdivision 2, clause (3), and
3.19 216H.02, subdivision 1, within the requirements and limitations set forth in this section;

3.20 (2) the total greenhouse gas emissions the natural gas utility expects to reduce or avoid
3.21 pursuant to the plan;

3.22 (3) the natural gas utility's estimate of how avoided or reduced emissions resulting from
3.23 the use of the innovative resource compare to total emissions from natural gas use by the
3.24 natural gas utility's customers in 2005;

3.25 (4) any pilot program proposed by the natural gas utility related to the development or
3.26 provision of innovative resources, including an estimate of the total incremental costs to
3.27 implement the pilot program;

3.28 (5) any program previously approved as a pilot program which the utility proposes to
3.29 continue as a pilot program or make permanent;

3.30 (6) the cost effectiveness of the proposed innovative resources from the perspective of
3.31 the natural gas utility, society, and participating customers as compared to other innovative

4.1 resources that could be deployed to reduce or avoid the same greenhouse gas emissions
4.2 targeted by the utility's proposed resource;

4.3 (7) a third-party analysis of the lifecycle greenhouse gas intensity of any innovative
4.4 resources included in the plan;

4.5 (8) a third-party analysis of the forecasted lifecycle greenhouse gas emissions reductions
4.6 achieved or the lifecycle greenhouse gas emissions avoided if the proposed programs are
4.7 implemented, including any:

4.8 (i) avoided emissions attributable to utility operations;

4.9 (ii) avoided emissions from the production, processing, and transmission of fuels prior
4.10 to receipt by the utility; and

4.11 (iii) avoided emissions at the point of end use;

4.12 (9) the process used to develop the lifecycle greenhouse gas accounting methodology
4.13 used consistently throughout the plan, including descriptions of how the utility engaged
4.14 interested stakeholders and ensured the plan reflects consistency with applicable current
4.15 scientific knowledge;

4.16 (10) whether the recommended plan supports the development and use of alternative
4.17 agricultural products, waste reduction, reuse, or anaerobic digestion of organic waste, and
4.18 the recovery of energy from wastewater, and if so a description of where those benefits are
4.19 realized;

4.20 (11) a description of third-party systems and processes the utility plans to use to:

4.21 (i) track the proposed innovative resources included in the plan so that environmental
4.22 benefits are used only for the natural gas innovation plan and not claimed for any other
4.23 program; and

4.24 (ii) verify the environmental attributes and greenhouse gas intensity of proposed
4.25 innovative resources included in the plan;

4.26 (12) a description of known local job impacts and the steps the utility and the utility's
4.27 energy suppliers and contractors are taking to maximize the availability of construction
4.28 employment opportunities for local workers; and

4.29 (13) a report on the utility's progress toward implementing the approved proposals
4.30 contained in the utility's previously filed innovation plan, if applicable.

4.31 (b) Along with the recommended plan, the natural gas utility must provide for commission
4.32 consideration:

5.1 (1) a plan that the utility estimates would provide approximately half of the greenhouse
5.2 gas reduction or avoidance benefits of the utility's preferred plan;

5.3 (2) a plan that the utility estimates would provide approximately 1-1/2 times the
5.4 greenhouse gas reduction or avoidance benefits of the utility's preferred plan; and

5.5 (3) a plan that the utility estimates would provide approximately twice the greenhouse
5.6 gas reduction or avoidance benefits of the utility's preferred plan.

5.7 (c) The commission must approve, modify, or deny the plan within 12 months of the
5.8 date the plan is filed.

5.9 (d) When deciding whether to approve, modify, or deny a plan, the commission is
5.10 prohibited from approving an innovation plan unless the commission finds:

5.11 (1) the plan promotes the use of renewable energy resources and reduces or avoids
5.12 greenhouse gas emissions at a cost level consistent with this section;

5.13 (2) the innovative resources included in the plan have a lower lifecycle greenhouse gas
5.14 intensity than conventional geologic natural gas;

5.15 (3) reasonable systems are used to track and verify the environmental attributes of the
5.16 innovative resources included in the plan, taking into account any third-party tracking or
5.17 verification systems available;

5.18 (4) the costs expected to be incurred pursuant to the plan are reasonable compared to
5.19 other innovative resources the utility could deploy to address greenhouse gas emissions and
5.20 considering other benefits of the innovative resources included in the plan; and

5.21 (5) the total amount of estimated greenhouse gas reduction or avoidance achieved under
5.22 the plan is reasonable considering (i) the state's goals established in sections 216C.05,
5.23 subdivision 2, clause (3), and 216H.02, subdivision 1, (ii) customer cost, and (iii) the total
5.24 amount of greenhouse gas reduction or avoidance achieved under the natural gas utility's
5.25 previously approved plans, if applicable.

5.26 (e) Commission approval of a plan constitutes prima facie evidence of the reasonableness
5.27 of the investments and costs incurred pursuant to the plan. The utility bears the burden to
5.28 prove the actual incremental costs incurred to implement the approved innovation plan are
5.29 reasonable. The rate of return on investments must be at the level approved by the
5.30 commission in the natural gas utility's last general rate case, unless the commission
5.31 determines a different rate of return is in the public interest. Prudently incurred costs incurred
5.32 pursuant to an approved plan and prudently incurred costs to obtain the third-party analysis
5.33 required in paragraph (a), clauses (3) and (4), are recoverable either:

6.1 (1) under section 216B.16, subdivision 7, clause (2), via the utility's purchased gas
6.2 adjustment;

6.3 (2) in the natural gas utility's next general rate case; or

6.4 (3) via annual adjustments, provided that after notice and comment the commission
6.5 determines the costs included for recovery through the rate schedule are prudently incurred.

6.6 (f) A natural gas utility with an approved plan must provide annual reports to the
6.7 commission regarding the work completed pursuant to the plan, including the costs incurred
6.8 under the plan and lifecycle greenhouse gas reduction or avoidance accomplished under
6.9 the plan; a description of the processes used to track, verify, and retire the innovative
6.10 resources and associated environmental attributes; and an update on the lifecycle greenhouse
6.11 gas accounting methodology, consistent with current science. As part of the annual status
6.12 report the natural gas utility may propose modifications to pilot programs in the plan. When
6.13 evaluating a utility's annual report the commission may:

6.14 (1) approve the continuation of a pilot or permanent program, with or without
6.15 modifications;

6.16 (2) make a program previously approved as a pilot program permanent;

6.17 (3) require the utility to file a new or modified plan to account for changed circumstances;
6.18 or

6.19 (4) disapprove the continuation of a pilot or permanent program.

6.20 (g) Once a natural gas utility has an approved innovation plan, a new innovation plan
6.21 must be filed no less frequently than once every five years. The commission may order a
6.22 natural gas utility with an approved plan to file a new plan more frequently than every five
6.23 years.

6.24 (h) A utility may file an innovation plan at any time after this section becomes effective.

6.25 (i) For purposes of this section, whenever an analysis or estimate of lifecycle greenhouse
6.26 gas emissions reductions, lifecycle greenhouse gas avoidance, or lifecycle greenhouse gas
6.27 intensity is required, the analysis or estimate may rely on emissions factors, default values,
6.28 or engineering estimates from a publicly accessible source accepted by a federal or state
6.29 government agency if direct measurement is not technically or economically feasible and
6.30 if the utility demonstrates the emissions factors, default values, or engineering estimates
6.31 are able to produce a reasonable estimate of greenhouse gas emissions reductions, avoidance,
6.32 or intensity.

7.1 Subd. 3. **Limitations on utility customer costs.** (a) The commission is prohibited from
7.2 approving annual recovery of incremental costs for innovative resources approved under
7.3 this section in excess of five percent of the natural gas utility's total annual revenue
7.4 requirement, as determined in the natural gas utility's most recent general rate case.

7.5 (b) Notwithstanding paragraph (a), the commission may approve up to an additional
7.6 2-1/2 percent of the natural gas utility's total annual revenue requirement, as determined in
7.7 the natural gas utility's most recent general rate case, to recover incremental costs for the
7.8 purchase of renewable natural gas produced from (1) food waste diverted from a landfill
7.9 by an organics recycling program; (2) community wastewater treatment; or (3) an organic
7.10 mixture including at least 15 percent sustainably harvested native prairie grasses, by volume.

7.11 (c) A transportation customer of a natural gas utility must not bear any costs incurred
7.12 to implement an approved innovation plan, except to the extent the transportation customer
7.13 elects to participate in an innovation plan program.

7.14 Subd. 4. **Innovative resources procured outside of an innovation plan.** (a) Without
7.15 filing an innovation plan, a natural gas utility may propose and the commission may approve
7.16 cost recovery for:

7.17 (1) innovative resources acquired to satisfy a commission-approved green tariff program
7.18 that allows customers to choose to meet a portion of the customers' energy needs through
7.19 innovative resources; or

7.20 (2) utility expenditures for innovative resources procured at a cost that is within five
7.21 percent of the average of Ventura and Demarc index prices for conventional natural gas,
7.22 calculated at the time of the transaction, per unit of fossil natural gas that the innovative
7.23 resource displaces.

7.24 (b) An approved green-tariff program must include provisions to ensure reasonable
7.25 systems are used to track and verify the environmental attributes of innovative resources
7.26 included in the program, taking into account any third-party tracking or verification systems
7.27 available.

7.28 Subd. 5. **Thermal energy leadership challenge.** The first innovation plan filed by a
7.29 natural gas utility with more than 800,000 customers must include a pilot thermal energy
7.30 leadership challenge for small- and medium-sized businesses. The pilot program must
7.31 provide small- and medium-sized business with thermal energy audits to identify
7.32 opportunities to reduce or avoid greenhouse gas emissions from use of natural gas, and
7.33 provide incentives for businesses to follow through with audit recommendations. The utility

8.1 must develop criteria to identify businesses that take meaningful steps to follow through on
8.2 audit recommendations and recognize qualifying businesses as thermal energy leaders.

8.3 Subd. 6. **Innovative resources for very high-heat industrial processes.** The first
8.4 innovation plan filed by a natural gas utility with more than 800,000 customers must include
8.5 a pilot program that provides innovative resources for hard-to-electrify industrial processes.

8.6 Subd. 7. **Electric cold climate air-source heat pumps.** (a) The first innovation plan
8.7 filed by a natural gas utility with more than 800,000 customers must include a pilot program
8.8 that facilitates deep energy retrofits and the installation of cold climate electric air-source
8.9 heat pumps with natural gas backups in existing residential homes that have natural gas
8.10 heating systems.

8.11 (b) For purposes of this subdivision, "deep energy retrofit" means the installation of any
8.12 measure or combination of measures, including air sealing and addressing thermal bridges,
8.13 that under normal weather and operating conditions can reasonably be expected to reduce
8.14 the building's calculated design load to ten or fewer British Thermal Units per hour per
8.15 square foot of conditioned floor area. Deep energy retrofit does not include the installation
8.16 of photovoltaic electric generation equipment, but may include the installation of a qualifying
8.17 solar thermal project, as defined in section 216B.2411.

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