

The Commission met on **Tuesday, May 3, 2022**, with Chair Sieben and Commissioners Means, Schuerger, Sullivan, and Tuma present.

The following matter was taken up by the Commission:

G-999/CI-21-566

In the Matter of Establishing Frameworks to Compare Lifecycle Greenhouse Gas Emission Intensities of Various Resources, and to Measure Cost-Effectiveness of Individual Resources and of Overall Innovative Plans

Chair Sieben moved that the Commission:

1. Require utilities to file a high, low, and expected greenhouse gas (GHG) intensity for innovative resources included in a proposed Natural Gas Innovation Act (NGIA) innovation plan, where applicable. High and low scenarios shall incorporate at least low and high assumptions for electricity use and other fuels used in the resource's lifecycle. Expected GHG intensity values will be used in cost-benefit calculations and when determining the expected GHG reduction of pilot programs and NGIA plans.
2. Require utilities, where applicable, to file updated estimated GHG intensities for innovative resources included in NGIA plans in annual status reports, using actual project- or facility-specific data when reasonably feasible.
3. Require utilities, when applicable, to use the most recent version of the Argonne National Laboratory's Greenhouse Gases, Regulated Emissions, and Energy use in Technologies (GREET) model in any NGIA plan filings or status reports. Utilities may use the prior year's model if filing an NGIA plan or status report within 30 days of the publication of a new version of the Argonne GREET model.
4. For purposes of the NGIA, determine that the lifecycle GHG emissions per dekatherm of geologic natural gas shall be calculated using the Argonne GREET model, using GREET's most up-to-date default assumptions for fugitive methane leakage associated with geologic natural gas. Currently, the GHG intensity of geologic natural gas delivered to end-use customers via the natural gas distribution system is calculated as 66.16 kilograms per dekatherm using the Argonne GREET model. As reliable data becomes available, utilities may submit utility-specific methane leakage data to estimate the lifecycle GHG emissions intensity of geologic gas in innovation plans.
5. Require that the GHG intensity of renewable natural gas included in an NGIA plan be calculated in accordance with the Argonne GREET model.

6. Require utilities to file Argonne GREET spreadsheets with the Commission supporting their calculations of lifecycle GHG intensity for any renewable natural gas proposed as part of an innovation plan.
 - a. Utilities shall complete the Argonne GREET model with facility-specific information for any individual renewable natural gas facilities expected to contribute five percent or more of the total estimated GHG emissions reduction of the utility's proposed NGIA plan.
 - b. Utilities may use national averages and/or reasonable assumptions for any renewable natural gas facilities expected to contribute less than five percent of the total estimated GHG emissions reduction of the utility's proposed NGIA plan, if facility-specific information is not readily available.
7. Require utilities to use electric-utility-specific generation mix information for the renewable natural gas facility when it is reasonably available. When electric utility-specific information is not available, the filing gas utility will use a state-specific generation mix taken from National Renewable Energy Laboratory Standard Scenarios. If the renewable natural gas facility is using a higher proportion of carbon free electricity than is available by default from their electric utility—either from on-site generation, by subscribing to a Commission-approved electric utility green tariff with renewable energy credits retired on the facility's behalf, or, for approval on a case-by-case basis, using other carbon-free generation sources—the filing gas utility may input facility-specific electric generation information into GREET as appropriate.
8. Require that multi-year investments in renewable natural gas must incorporate expected changes in the electricity system in the calculation of GHG intensity.
9. Require that the GHG intensity of power-to-hydrogen included in an NGIA plan must be calculated in accordance with the Argonne GREET model.
10. Allow utilities to assume that hydrogen produced using carbon-free electricity has no GHG emissions associated with its production but may have GHG emissions associated with electricity used for compression, transportation, blending, injection, purification and pumping of water, or other purposes. Carbon-free electricity includes dedicated carbon-free generation, electricity purchased pursuant to a Commission approved green-tariff program, and, for approval on a case-by-case basis, other carbon-free generation supported by a demonstration that the GHG intensity of the connected electric grid is not adversely impacted.
11. Allow utilities to use the State of Minnesota Technical Reference Manual for Energy Conservation Improvement Programs (Technical Reference Manual) or other methods approved by the Department of Commerce, Division of Energy Resources (the

Department) for the utility's conservation improvement program (CIP) to calculate energy savings.

12. Require that, if there are no applicable methods approved by the Department for a proposed energy efficiency measure, the utility must file a proposed method for calculating energy savings with their innovation plan proposal. Utilities are encouraged to engage with the Department before filing proposed methods with innovation plan proposals.
13. To calculate GHG reductions from an energy efficiency resource, require utilities to multiply the reduced consumption of geologic gas, calculated per paragraph 11 or 12, above, by the GHG intensity assigned to geologic gas per paragraph 4, above.
14. Require utilities to use estimated lifetime GHG reductions, rather than first-year reductions, when comparing energy efficiency with other resources.
15. In annual NGIA status reports, require utilities to provide actual participation and estimated lifetime savings for all measures installed, calculated in accordance with the Technical Reference Manual or other approved methodology.
16. Require that the GHG intensity of electricity used for strategic electrification be calculated as follows:
 - a. Gas utilities implementing strategic electrification in the electric service territory of an electric utility that files integrated resource plans with the Commission should calculate electricity GHG intensity by entering into GREET a user-defined generation mix representing a 50/50 blend of wind and the electric utility's projected system generation mix per its most recent Commission-approved integrated resource plan.
 - b. An electric utility that wishes to develop its own blend of wind and the system generation mix may submit documentation supporting the utility-specific blend factor for review and approval by the Commission. The approved utility-specific generation mix to wind blend factor for Northern States Power Company d/b/a Xcel Energy (Xcel) is 50/50.
 - c. Gas utilities implementing strategic electrification in the electric service territory of an electric utility that does not file an integrated resource plan, or implementing strategic electrification in a location where the electric utility is unknown, should calculate the GHG intensity by entering into GREET a 50/50 blend of wind and a Minnesota-specific generation mix taken from National Renewable Energy Laboratory Standard Scenarios.

- d. Gas utilities seeking to implement a pilot for electrification of industrial processes shall include a discussion of their plan for calculating the GHG intensity of associated electricity use.
- 17. Allow utilities to use the Technical Reference Manual or other methods approved by the Department for the utility's CIP to calculate the energy use of appliances installed pursuant to a strategic electrification program and the baseline appliances.
- 18. If there are no applicable methods approved by the Department that the utility can use to calculate the energy use of an appliance, require the utility to file a proposed method for calculating the appliance's energy use along with their innovation plan proposal. Utilities are encouraged to engage with the Department before filing proposed methods with innovation plan proposals.
- 19. Require utilities to use estimated lifetime GHG reductions, rather than first-year reductions, when comparing strategic electrification with other resources.
- 20. In annual NGIA status reports, require utilities to provide actual participation and estimated lifetime savings for all measures installed, calculated in accordance with the Technical Reference Manual or other approved methodology and incorporating any updates to the GHG intensity of electricity used.
- 21. When calculating the GHG intensity of biogas or power-to-ammonia, require utilities to use principles consistent with Argonne GREET and methods used for renewable natural gas and power-to-hydrogen, as appropriate.
- 22. When calculating the GHG intensity of a district energy project, require utilities to use project-specific data as available and principles consistent with Argonne GREET and methods used for calculating the GHG intensity of electricity approved by the Commission, unless it is demonstrated that an alternate method is appropriate.
- 23. When calculating the GHG intensity of a carbon capture project, require utilities to use project-specific data as available and principles consistent with Argonne GREET, unless it is demonstrated that an alternate method is appropriate.
- 24. Order CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas (CenterPoint), Xcel, and Minnesota Energy Resources Corporation to make a joint filing on June 1, 2026, to discuss lessons learned and possible improvements for the GHG emission and cost-benefit-analysis frameworks established in this order. Delegate authority to the Executive Secretary to modify the date for this filing.
- 25. Delegate authority to the Executive Secretary to resume Docket No. G-008/M-21-324 and request comment on CenterPoint's proposed Minnesota-GREET framework for

determining the lifecycle GHG intensity of renewable natural gas producers interconnecting to CenterPoint's distribution system.

The motion passed 5–0.

Commissioner Tuma moved that the Commission:

1. Adopt the following definitions for cost-effectiveness perspectives required by the NGIA:
 - a. The NGIA Utility Perspective is defined as the costs or benefits that accrue to the utility system.
 - b. The NGIA Participating Customer Perspective is defined as the costs or benefits that accrue to the participating customer (i.e., the customer receiving or using the innovative resource).
 - c. The NGIA Nonparticipating Customer Perspective is defined as the costs or benefits that accrue to nonparticipating customers.
 - d. The NGIA Societal Perspective is defined as all the costs and benefits of the resource, including all relevant societal impacts.
2. Consider cost-effectiveness primarily from the NGIA societal perspective.
3. Require utilities, where applicable, to use structural cost-benefit values following the methods described in Appendix H of the Department's February 11, 2020, CIP BenCost Input Decision in Docket No. G-999/CIP-18-782, Inputs 1–13, with the modifications reflected in the Structural Values Modifications to CIP Approach table filed by the Joint Commenters.¹
4. Require utilities to update structural cost-benefit values with the filing of each innovation plan or each annual NGIA report filing. Wherever a supporting third-party report or data is used to calculate a structural value, the utility will use the most recent version of that report or data, except that if a new report or data is published within 30 days of an innovation plan filing or annual NGIA status report filing, the utility may use the prior version.

¹ Joint Commenters' Proposed Decision Options, at Exhibit A, pp. 5–7 (April 1, 2022).

5. Require utilities to include completed versions of the Exhibit B chart² in innovation plan filings for the plan proposed by the utility. The Exhibit B chart summarizes the costs and benefits that are expected to result from each pilot program proposed by the utility, one pilot per column.
6. Require utilities, in completing the Exhibit B chart for their proposed plan, to quantify costs and benefits to the extent reasonably practicable, but, at a minimum, utilities shall quantify (1) near-term expected costs and benefits to the utility system; (2) costs and benefits associated with reduction or avoidance of GHGs and other emissions; and (3) any out-of-pocket costs expected to be paid by participating customers.
7. Where it is not reasonably practicable to quantify a cost or benefit, require utilities to provide a brief qualitative description of the cost or benefit in the Exhibit B chart.
8. For both quantitative and qualitative costs and benefits of the utility's proposed plan summarized in an Exhibit B chart, require utilities to provide a detailed discussion in the innovation plan filing. For quantified costs and benefits, this detail shall include sufficient information for a reader to understand how the utility calculated the figure included in the chart using structural values and any other numerical inputs.
9. Require utilities to also complete an Exhibit B chart for each collection of alternative pilot programs to be considered pursuant to Minn. Stat. § 216B.2426, subd. 2(a)(16).
10. For each resource proposed to be included in a utility plan, require the utility to provide a brief discussion of other resources considered to reduce or avoid the same emissions targeted by the proposed resource including a discussion of how the expected costs and benefits of the alternative resources would compare the utility's proposed resource.
11. Establish the baseline cost-effectiveness criteria against which an innovation plan should be compared pursuant to Minn. Stat. §216B.2428(2)(iii) as described in Exhibit B. Find that, to approve an innovation plan, the Commission must find that the expected qualitative and quantitative benefits of a proposed innovation plan are greater in total than the expected quantitative and qualitative costs of the plan in total. In making this determination, the Commission shall consider plan costs and benefits to the utility system, to participating customers, to non-participating customers, and to other energy systems serving Minnesota customers. The Commission shall also consider environmental and socioeconomic costs and benefits that would result directly from the plan and the benefits of the plan for energy resource innovation in the state.

² NGIA Blank Cost-Benefit Framework Chart, CenterPoint's Proposed Cost-Benefit Framework, at Exhibit B (January 28, 2022) (Exhibit B chart).

12. Direct the Executive Secretary to establish a comment period to consider what energy efficiency and strategic electrification measures are eligible for inclusion in utility innovation plans with initial comments to be filed no later than July 1, 2022. Encourage the Department to consult with interested parties to develop proposed guidance on this issue.

The motion passed 5–0.

Commissioner Tuma moved that the Commission

1. Require utility innovation plan filings to include:
 - a. An assessment of impacts on local communities in and around proposed project sites and a summary of outreach/community workshops held for pilots designed to reach low- and medium-income customers;
 - b. A discussion of expectations for program access and types of customers that may participate;
 - c. A discussion of how equity and diversity was or will be considered in the program design process and any utility vendor/supplier selection processes;
 - d. The most recent metrics filed under the Commission’s January 7, 2020, Order of Service Quality Reports in Dockets No. G-004/M-19-280, G-008/M-19-300, G-011/M-19-303, G-002/M-19-304, and G-002/M-19-305; and
 - e. A nontechnical summary describing how the innovation furthers the state's GHG emissions reduction and renewable energy goals, the process and analytical techniques used to create the plan, percentage GHG emission reductions through the plan, all projects proposed and considered by the utility ranked in order of cost per ton of avoided GHG emissions, costs and activities required over the next five years to implement the plan, the likely effect of plan implementation on gas rates and bills, and local economic development and future innovation associated with the plan.
2. Require the utility, prior to approval of any hydrogen blending pilot, to:
 - a. Clearly state the learning objectives for the proposed blending pilot and metrics it will collect to achieve those learning objectives;
 - b. Document the utility’s consultation with the Minnesota Office of Pipeline Safety regarding the specific pilot along with a discussion of why it is in compliance with the state pipeline safety standards; and
 - c. Provide a discussion demonstrating that the utility has determined the level of hydrogen blending will ensure the safety of its system and customers’ appliances.

3. Determine that the Commission will consider any non-energy impacts when evaluating NGIA resources and pilots, and encourage utilities to work with stakeholders to develop valuations for appropriate non-energy impacts prior to filing an NGIA plan.

The motion passed 5–0.

There being no further business, the meeting was adjourned.

APPROVED BY THE COMMISSION: June 1, 2022

A handwritten signature in black ink, appearing to read "Will Seuffert", with a long horizontal flourish extending to the right.

Will Seuffert, Executive Secretary