

**STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION**

Katie Sieben	Chair
Joseph K. Sullivan	Vice Chair
Hwikwon Ham	Commissioner
Valerie Means	Commissioner
John Tuma	Commissioner

*In the Matter of CenterPoint Energy's
Natural Gas Innovation Plan*

DOCKET NO. G-008/M-23-215

**INITIAL COMMENTS OF THE OFFICE
OF THE ATTORNEY GENERAL**

INTRODUCTION

In the First Special Session of 2021, the Minnesota Legislature enacted the Natural Gas Innovation Act (“NGIA”), which allows natural gas utilities to submit plans to the Public Utilities Commission to use innovative resources that displace conventional natural gas.¹ NGIA plan programs must be cost-effective and must reduce greenhouse gas emissions.²

CenterPoint Energy submitted its first NGIA plan under the new statutory regime on June 28, 2023.³ CenterPoint should be commended for working with stakeholders and taking the time to develop novel methods to achieve greenhouse gas savings. At the same time, their plan is sweeping in scale, and the Commission must exercise caution and implement additional oversight to ensure Minnesotans benefit. Portions of CenterPoint’s plan are not yet ready for primetime: several of the proposals lack necessary partners, and many lack sufficient detail to establish their prudence. Other proposed projects are unlikely to achieve the greenhouse gas savings CenterPoint suggests and unlikely to justify the astronomical cost to ratepayers. For these reasons, described

¹ 2021 First Special Session Law Ch. 4, Art. 8, Sec. 20.

² *Id.*

³ *In re CenterPoint Energy's Natural Gas Innovation Plan*, Docket No. G-008/M-23-215, Initial Filing (June 28, 2023) (including Petition).

in greater detail below, the Office of the Attorney General—Residential Utilities Division (“OAG”) recommends the Commission approve in part, deny in part, and modify in part portions of CenterPoint’s 2023 NGIA Plan.

ANALYSIS

I. **UNLESS MODIFIED, CENTERPOINT’S 2023 NGIA PLAN WOULD COMMIT RATEPAYERS TO EXPENSES ABOVE WHAT IS ENVIRONMENTALLY AND ECONOMICALLY REASONABLE.**

The NGIA requires CenterPoint to demonstrate its plan delivers “net benefits” to Minnesotans.⁴ In particular, the plan must reduce or avoid greenhouse gas emissions, and its costs must be “reasonable in comparison to other innovative resources the utility could deploy to reduce greenhouse gas emissions.”⁵

CenterPoint acknowledges that only four of its proposed pilots are cost-effective when solely examining quantitative costs and benefits.⁶ For the remaining Pilots, CenterPoint relies on the Commission’s Frameworks Order, which says that the Commission will consider cost effectiveness primarily from the NGIA societal perspective.⁷ The non-cost impacts of the NGIA are then a crucial piece in the Commission’s cost benefit analysis. But in some instances, CenterPoint has overstated the environmental impacts its plan is likely to achieve. For other portions of the plan, CenterPoint has not yet provided adequate detail to evaluate whether the Plan will achieve net benefits for Minnesotans.

⁴ Minn. Stat. § 216B.2427, subd. 2(b)(1).

⁵ Minn. Stat. § 216B.2427, subd. 2(b).

⁶ *In re CenterPoint Energy’s Natural Gas Innovation Plan*, Docket No. G-008/M-23-215, Petition at 26 (June 28, 2023).

⁷ *In re Establishing Frameworks to Compare Lifecycle Greenhouse Gas Emission Intensities of Various resources, and to Measure Cost Effectiveness of Individual Resources and of Overall Innovation Plans*, Docket No. G-999/CI-21-566, Establishing Framework for Implementing Minnesota’s Natural Gas Innovation Act at 20 (June 1, 2022).

A. The Environmental Benefits of Several of CenterPoint’s Proposed Projects Are Overstated.

1. Pilot F is unlikely to achieve the full scope of benefits CenterPoint suggests.

In several instances, CenterPoint assumes greenhouse gas reductions beyond what is likely to materialize. This is particularly true of CenterPoint’s Pilot F. In Pilot F, CenterPoint proposes to hire a vendor to survey participating industrial and large commercial facilities for methane leaks.⁸ Methane is a major contributor to global climate change, and according to the EPA, methane “is more than 25 times as potent as carbon dioxide at trapping heat in the atmosphere.”⁹ Clearly, preventing methane from entering the atmosphere is a crucial step in combating climate change.

While preventing methane leaks would be a big win for the State’s greenhouse gas goals, CenterPoint overestimates the environmental benefits of this Pilot. CenterPoint assumes that on average each participating facility will reduce annual methane leaks by 301 Dth/year, or the equivalent of 0.25 percent of the annual gas consumption for CenterPoint’s largest industrial and commercial customers.¹⁰ CenterPoint bases this estimate on a Final Project Report from California that details the methane emissions from commercial buildings, which found leak rates between 0.14 - 0.28 percent among participants.¹¹ But this outcome was driven by a select few facilities with substantial leaks; many facilities had no leaks at all.¹² CenterPoint does not explain why it has assumed Minnesota participants will fall at the higher end of the savings range at 0.25 percent.

⁸ Petition at 7-8.

⁹ United States Environmental Protection Agency, *Importance of Methane* (last updated Nov. 1, 2023), available at <https://www.epa.gov/gmi/importance-methane>.

¹⁰ Petition, Ex. F at 11.

¹¹ *See id.* at 11 n.19. *See also* California Energy Commission, *Characterization of Fugitive Methane Emissions from Commercial Buildings in California* (July 2020), available at <https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2020-048.pdf>.

¹² California Energy Commission, at iii.

Without more detail, CenterPoint's assumptions are unfounded, and the expected savings from Pilot F should be revised down before the Commission assesses the net benefits from this \$1.2 million Pilot¹³.

2. The assumptions underlying the anticipated environmental benefits of Pilot H are flawed.

The environmental benefits of Pilot H are similarly overstated. In Pilot H, CenterPoint proposes to provide rebates to commercial customers that install CarbinX carbon capture systems. This unit is roughly 90 percent effective at capturing carbon dioxide, but based on Minnesota's geology it is unlikely that captured carbon dioxide will be sequestered underground locally.¹⁴ Instead of storing the carbon dioxide underground, CenterPoint assumes the sequestered carbon dioxide will be used in the production of concrete, which research suggests only retains 60 percent of the carbon dioxide stream.¹⁵ CenterPoint, multiplying the 90 percent capture rate against the 60 percent retention rate, arrives at an estimate of 54 percent carbon reduction for entities that employ the CarbinX system. This estimate is flawed. CenterPoint's analysis assumes that the commercial consumer that installs CarbinX can find a buyer to use the sequestered carbon dioxide in the making of concrete. This assumption is unfounded, as the very research CenterPoint relies upon describes this as a developing market.¹⁶ CenterPoint has not demonstrated sufficient demand for sequestered carbon in the Minnesota concrete market. If no such buyer exists, then pilot participants may need to sell to users in other industries that achieve lower carbon dioxide utilization rates. More specificity around the endpoint for sequestered carbon is needed before this \$3.7 million Pilot should be approved.¹⁷

¹³ See Petition at 9.

¹⁴ Petition, Ex. F at 12.

¹⁵ *Id.* at 12-13.

¹⁶ See *id.*

¹⁷ See Petition at 9.

3. For several reasons, Pilot D is unlikely to achieve the environmental benefits CenterPoint suggests and unlikely to justify its tremendous cost.

CenterPoint also overstates the environmental benefits from Pilot D. Specifically, both the Company's expectations for green electricity are overly optimistic and the benefits of hydrogen in this pilot is ambiguous. In Pilot D, CenterPoint proposes to own and operate a 1MW green hydrogen plant at an existing CenterPoint facility in Mankato, Minnesota.¹⁸ This Pilot accounts for \$5 million of CenterPoint's NGIA budget, but is expected to cost more than \$22 million over the lifetime of the project.¹⁹

CenterPoint claims the lifecycle greenhouse gas, GHG, of this pilot is zero kgCO₂e/Dth because the facility will use carbon free electricity, but this is somewhat misleading. CenterPoint intends to install solar panels to power the green hydrogen process, but the utility admits that “[g]iven typical solar generation capacity factors in Minnesota, it is expected that the pilot will leverage more grid electricity than on-site solar.”²⁰ CenterPoint's claim of carbon free electricity thus hinges on how the utility meets the rest of its electricity needs. CenterPoint indicates it intends to purchase electricity from an Xcel green tariff program or other independent power purchase agreements. But CenterPoint has not yet committed to a specific plan, meaning there is no guarantee at this point that the power will be carbon free.

In addition to concerns about how CenterPoint will power Pilot D, OAG believes CenterPoint's case for green hydrogen is overstated. CenterPoint claims green hydrogen blending will reduce gas throughput and increase the use of renewable energy. Yet, the reduction in greenhouse gases will be underwhelming. Green hydrogen can only displace a limited amount of

¹⁸ See Petition Ex. D at 10.

¹⁹ See Petition at 9.

²⁰ Petition Ex. D. at 10.

natural gas: due to safety issues, CenterPoint can only blend up to 5 percent of it into its natural gas distribution system.²¹ Even this 5 percent displacement of natural gas oversells the climate benefit of hydrogen, as green hydrogen produces less energy than natural gas when burned. Emissions reductions are real but small, as even a 20 percent hydrogen blend would provide only a 6 to 7 percent reduction in greenhouse gas emissions.²²

While green hydrogen does displace some natural gas in the short term, it can arguably increase future emissions. The reasons are two-fold. First, green hydrogen cannot completely replace natural gas, so investing in green hydrogen necessarily means a long-term commitment to natural gas. Exacerbating these concerns is the fact that hydrogen can cause damage in the distribution system, which in turn leads to costly repairs and new capital investments.²³ These investments represent an opportunity to earn a rate of return for CenterPoint but are arguably a misallocation of societal resources in light of Minnesota's statutory climate goals. These are not hypothetical issues: over the first 5 years of the plan, the revenue requirement for capital expenses alone exceeds \$1 million.²⁴ CenterPoint assumes a 20-year life of the green hydrogen plant which

²¹ See *id.* at 14.

²² See Sara Baldwin et al., *Assessing the Viability of Hydrogen Proposals: Considerations for State Utility Regulators and Policymakers*, Energy Innovation (March 2022) at 7-8, available at <https://energyinnovation.org/wp-content/uploads/2022/04/Assessing-the-Viability-of-Hydrogen-Proposals.pdf>; Tom DiChristopher and Allsair Bowles, *Hydrogen Blending in Gas Pipelines Faces Limits Due to Leakage: US DOE Lab*, S&P Global Commodity Insights (Oct. 27, 2023), available at <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/102723-hydrogen-blending-in-gas-pipelines-faces-limits-due-to-leakage-us-doe-lab>; Frank Jossi, *Gas Utility's Minnesota Hydrogen Pilot 'Good News' So Far, but Questions Remain*, Minnesota Reformer (Jan. 31, 2023).

²³ See Mike Hughlett, *CenterPoint, Xcel Move Forward with 'Green' Hydrogen Pilot Projects*, Star Tribune (June 3, 2022). See also Sara Baldwin et al., *Assessing the Viability of Hydrogen Proposals: Considerations for State Utility Regulators and Policymakers*, Energy Innovation (March 2022), available at <https://energyinnovation.org/wp-content/uploads/2022/04/Assessing-the-Viability-of-Hydrogen-Proposals.pdf>; see also *id.*

²⁴ Petition Ex. D at 11.

means it would run until roughly 2045. Because hydrogen cannot completely replace natural gas, that would mean either committing CenterPoint and its customers to using a substantial quantity of natural gas well into the future, consciously committing to a future stranded asset, or betting ratepayer dollars that a novel, carbon free solution to natural gas will emerge. Given the uncertainty surrounding what the natural gas system looks like out to 2045, the Commission should cautiously approach such large investments, particularly where the investment does not provide a complete solution.

A second potential increase in emissions comes from the diversion of green energy generation to the production of hydrogen. While CenterPoint would be using solar panels to produce hydrogen, there are outstanding questions about the amount of renewable energy resources that should be diverted to hydrogen production. While there is a role for green hydrogen in a carbon free future, it may be in sectors that are extremely difficult to electrify.²⁵ Again, the Commission should cautiously approach such large investments. Moreover, given these constraints, it is unlikely the environmental benefits of the production and use of green hydrogen justify the astronomical cost of Pilot D.

Finally, OAG remains skeptical of the viability of this project. CenterPoint has already undertaken a similar hydrogen blending project in Minneapolis and has not yet demonstrated the

²⁵ See Mike Hughlett, *CenterPoint, Xcel Move Forward with 'Green' Hydrogen Pilot Projects*, Star Tribune (June 3, 2022). See also Sara Baldwin et al., *Assessing the Viability of Hydrogen Proposals: Considerations for State Utility Regulators and Policymakers*, Energy Innovation (March 2022), available at <https://energyinnovation.org/wp-content/uploads/2022/04/Assessing-the-Viability-of-Hydrogen-Proposals.pdf>; Tom DiChristopher and Allsair Bowles, *Hydrogen Blending in Gas Pipelines Faces Limits Due to Leakage: US DOE Lab*, S&P Global Commodity Insights (Oct. 27, 2023), available at <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/102723-hydrogen-blending-in-gas-pipelines-faces-limits-due-to-leakage-us-doe-lab>; Frank Jossi, *Gas Utility's Minnesota Hydrogen Pilot 'Good News' So Far, but Questions Remain*, Minnesota Reformer (Jan. 31, 2023).

success of the project in blighting greenhouse gas emissions or the scalability of it going forward. Given the huge price tag of this proposal, CenterPoint must explain why it believes the Mankato project will be more successful.

In light of the concerns above, Pilot D is unlikely to provide net benefits to Minnesota Ratepayers. The Commission should reject this proposal in its entirety.

B. CenterPoint Has Not Provided Adequate Detail for Pilots C and I.

CenterPoint has not offered sufficient detail to justify the astronomical price tag of Pilot C. In Pilot C, CenterPoint plans to issue a request for proposal for additional renewable natural gas (RNG) to complete its portfolio.²⁶ At more than \$32 million over five years, Pilot C represents approximately one third of CenterPoint’s NGIA budget.²⁷ Despite Pilot C’s robust financial share of CenterPoint’s NGIA plan, CenterPoint’s write up is thin, offering perilously few details about who will be producing this RNG or what volume of RNG ratepayers can expect to obtain for their expenditure. Notably CenterPoint’s RFP will be based on a total dollar amount of gas, rather than a particular quantity of gas. This method is unlikely to yield the lowest cost option for ratepayers. More controls are needed to ensure ratepayers are getting a square deal and a net benefit from this Pilot.

The details of Pilot I are similarly lacking. In Pilot I, CenterPoint plans to develop a New Networked Geothermal System to provide heat and cooling for a neighborhood currently served by the utility. At this juncture, the plan is purely theoretical, with CenterPoint having identified neither the target community nor the appropriate technologies to implement such a system. Instead, CenterPoint reassures that while it “has not made final determinations about the

²⁶ See Petition Ex. D at 7.

²⁷ See Petition at 9. Note, in CenterPoint’s Update (Jan. 3, 2024), CenterPoint requests to reappropriation the funding it proposed for Pilot A to Pilot C, meaning the addition of several million additional dollars to this project.

technology that would be used for New Networked Geothermal Systems pilot, there are local providers of geothermal technology which could be supported by the pilot.”²⁸ CenterPoint only counts \$11 million against its NGIA budget cap for this Pilot, but the project has a lifetime cost of over \$42 million. For this type of commitment, more information is needed. CenterPoint is proposing to start with a feasibility study before beginning construction. The Commission should only approve the funds needed to complete the feasibility study at this time and can reassess the plan once CenterPoint has a clear understanding of the costs.

III. CENTERPOINT’S REQUEST FOR AUTHORIZATION TO SPEND 25 PERCENT MORE ON APPROVED PROJECTS DOES NOT SATISFY THE REQUIREMENTS OF THE NGIA STATUTORY TEXT

In its plan, CenterPoint asks to “be allowed to spend up to 25 percent more than budgeted for pilots with higher than-expected expenditures without seeking any additional approval from the Commission, provided that the increase does not cause the Plan, as a whole, to exceed its statutory cost cap or fail to satisfy any other statutory requirements.”²⁹ This request is an impermissible end run around the statutory scheme NGIA sets for recovery of NGIA project costs.

The NGIA sets processes for a utility to recover costs incurred under a plan approved by the Commission.³⁰ Specifically, the utility “must demonstrate to the satisfaction of the commission that the actual total incremental costs incurred to implement the approved innovation plan are reasonable.”³¹ Further, “Prudently incurred costs under an approved plan . . . are recoverable either: (1) under section 216B.16, subdivision 7, clause (2), via the utility’s purchased gas adjustment; (2) in the utility’s next general rate case; or (3) via annual adjustments, provided

²⁸ Petition Ex. B at 16.

²⁹ Petition at 10.

³⁰ See Minn. Stat. § 216B.2427, subd. 2(c).

³¹ *Id.*

that after notice and comment the commission determines that the costs included for recovery through rates are prudently incurred.”³²

CenterPoint’s request is out of step with the plain text of the statute and out of line with the best interests of ratepayers. As an initial matter, the NGIA statute calls for recovery of “actual total incremental costs incurred” that are “reasonable.” It is impossible to know whether additional costs were reasonably incurred before they occur. In its NGIA plan, CenterPoint was statutorily required to put forward financial modeling for its projects. At this moment—before anything beyond that modeling is known, before any unanticipated circumstances have arisen—the prudence of additional spending is quite questionable.

When costs are prudently incurred, the utility can recover via one of the three mechanisms outlined in statute: (1) purchased gas adjustment, (2) rate case, (3) annual adjustments.³³ The statute does not provide a fourth option for anticipatory overrun approval, nor should it. Each of these ordinary mechanisms gives the utility a fair opportunity to pursue recovery while balancing ratepayers’ needs for predictability, accountability, and demonstration of prudence.

Beyond the fact that CenterPoint’s request does not comply with the text of the statute, the OAG has additional concerns about CenterPoint’s proposed approach. As advocates for residential and small business ratepayers, the OAG is concerned that even if CenterPoint stays within its NGIA budget, it may use added flexibility to shift the mix of proposed Pilots in ways that may harm smaller users. For example, if costs are shifted from a project that primarily benefits C&I customers to a project that primarily benefits the residential class, residential customers could see an unexpected jump in their natural gas bill.

³² *Id.*

³³ *Id.*

The OAG does not believe the NGIA provides the flexibility CenterPoint is seeking. If the Commission believes, however, that the statutory mechanisms within Minn. Stat. § 216B.2427, subd. 2(c) are insufficiently flexible to accommodate the goals of NGIA, then additional controls are still needed to make CenterPoint’s request reasonable. Just as the NGIA statute limits increases to the lesser of both a percent and a dollar amount, so too should CenterPoint’s request for flexibility have an upper dollar limit.

IV. CENTERPOINT’S PROPOSED PROJECTS COMMIT RATEPAYERS TO GROWING COSTS WELL BEYOND THE FIVE-YEAR PLAN HORIZON

The NGIA sets a five-year term for innovation plans, but the Pilots included in CenterPoint’s Plan will require ongoing investments for decades.³⁴ In their filing, CenterPoint confirms, “Many pilots will require continued investment by CenterPoint Energy after the end of the five-year term of this NGIA plan. For example, the New Networked Geothermal System is expected to operate, and require maintenance, for decades.”³⁵ The New Networked Geothermal pilot is not the only proposal to run for longer than five years; at a minimum Pilots A-D are also estimated to exceed the window.

While it is not inaccurate to calculate only the costs incurred during the initial five-year window, neither the Commission nor ratepayers would be well served by ignoring the lifetime costs of these projects. And it would be misleading for CenterPoint to lean on the five-year costs if it aims to recover the lifetime costs in future filings. For the Commission and ratepayers to have a clear understanding of the plan, some if not all the costs that fall outside of the five-year window should be understood and considered. While the transition to a carbon free economy will require

³⁴ Minn Stat 216B.2427, subd 2.

³⁵Petition at 9 n.18.

substantial ratepayer investment, it is essential that ratepayers and the Commission have as much clarity as possible on the long run costs for which Minnesotans will be liable.

CONCLUSION

CenterPoint has put forth an ambitious plan with many Pilots that are likely to reduce greenhouse gas emissions. But questions of cost and efficiency remain with respect to several proposals. More detail is needed to ensure that this Plan yields net benefits to Minnesotans, and tighter controls are needed to ensure ratepayers are not on the hook for avoidable legacy gas system expenses long into the future. With greater transparency and focus, CenterPoint's NGIA Plan may be an exciting step towards decarbonization that will benefit all Minnesotans. Specifically, the OAG urges the Commission to adopt the following recommendations:

- Require CenterPoint to provide additional information to support its claims of environmental benefit for Pilots D, F, and H, or revise down the utility's environmental estimates prior to determining whether these Pilots deliver net benefits to Minnesotans.
- Require CenterPoint to specify the source of power it will use for Pilot D before approving this Pilot.
- For Pilot C, require CenterPoint to provide more information about how it will source RNG, and require CenterPoint to revise its proposed RFP so CenterPoint is no longer pursuing a dollar amount of RNG but rather a volume of RNG.
- For Pilot I, solely grant CenterPoint the funds needed to perform a feasibility study.
- Deny CenterPoint's request be allowed to spend up to 25 percent more than budgeted for pilots with higher than-expected expenditures without seeking any additional approval from the Commission.

- Consider the long financial tails that many of these projects will impose on ratepayers, and assess whether CenterPoint has justified these long-term commitments.

Dated: January 12, 2024

Respectfully submitted,

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