

**STATE OF MINNESOTA  
PUBLIC UTILITIES COMMISSION**

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In the Matter of the Petition by CenterPoint Energy  
for Approval of its First Natural Gas Innovation Plan

Docket No. G-008/M-23-215

**Initial Comments of the Citizens Utility Board of Minnesota**

The Citizens Utility Board of Minnesota (“CUB”) respectfully submits these Comments in response to the Minnesota Public Utilities Commission’s (“Commission”) Notice of Extended Comment Period issued on October 31, 2023 in the above-referenced matter.

**I. INTRODUCTION**

CUB appreciates the significant amount of time and effort CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas (“CenterPoint” or the “Company”) put into preparing its Natural Gas Innovation Act Plan (“NGIA Plan” or the “Plan”). Developing such an extensive proposal is a significant undertaking, particularly given CenterPoint’s NGIA Plan is the first such plan filed under the new NGIA statute. We are grateful the Company proactively met with and received feedback from stakeholders prior to finalizing its proposal and petitioning the Commission for approval.

The filing of this NGIA Plan represents an initial step towards modernizing the gas system and placing Minnesota on a path towards a cleaner, more sustainable energy future. As CenterPoint acknowledges, utility innovation will play an increasingly critical role in energy sector decarbonization.<sup>1</sup> It will take careful planning to determine whether and how innovative resources can be incorporated, at scale, into CenterPoint’s existing systems in a way that both aligns with state energy policy goals and permits the Company to continue to provide safe, reliable, and affordable service along the way. Through the NGIA, innovative resources can be evaluated, and lessons learned can be incorporated into future decarbonization efforts.

We offer below some initial reactions and recommendations regarding CenterPoint’s NGIA plan. We look forward to further expanding on our recommendations after reviewing others’ comments.

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<sup>1</sup> *In the Matter of CenterPoint Energy’s Natural Gas Innovation Plan*, Docket No. G-008/M-23-215, CenterPoint NGIA Petition at 4-5 (June 28, 2023) (hereinafter “CenterPoint NGIA Plan”).

## II. DISCUSSION

The Natural Gas Innovation Act is designed to evaluate resources that “advance the state’s alternative energy and greenhouse gas reduction goals.”<sup>2</sup> As reflected in the NGIA statute, “it is the goal of the state of Minnesota that through the [NGIA], utilities reduce the overall amount of natural gas produced from conventional geologic sources delivered to customers.”<sup>3</sup> Among numerous other requirements, NGIA plans must describe the innovative resources “the utility plans to implement to contribute to meeting the state’s greenhouse gas and renewable energy goals, including those established in Section 216C.05, subdivision 2, clause (3), and subsection 216h.02, subdivision 1[.]”<sup>4</sup>

Minn Stat. § 216H.02, subd. 1, provides:

It is the goal of the state to reduce statewide greenhouse gas emissions across all sectors producing greenhouse gas emissions by at least the following amounts, compared with the level of emissions in 2005: (1) 15 percent by 2015; (2) 30 percent by 2025; (3) 50 percent by 2030; and (4) to net zero by 2050.

With the new NGIA statute and the opportunities it presents comes novel questions that we believe warrant consideration by CenterPoint, stakeholders, and ultimately the Commission. We raise some of these questions in our comments below. We hope our comments help improve CenterPoint’s Plan so that several of the ideas and pilots proposed therein can move forward cost-effectively.

### **A. CUB supports clear, cost-effective pathways towards decarbonization that are not duplicative of existing pilots.**

The Commission should take care to ensure individual pilots approved as part of the larger Plan are reasonably likely to align with the state’s overarching objective to reduce throughput of geologic gas to achieve net zero greenhouse gas (“GHG”) emissions by 2050.<sup>5</sup> Individual pilots, and the plan as a whole, should also be cost-effective.

#### *i. CUB supports pilots focused on electrification, energy efficiency, and conservation.*

Electrification, energy efficiency, and energy conservation provide clear pathways towards decarbonization. We applaud CenterPoint for proposing several pilots and research and development (“R&D”) projects that promote these strategies. Though we would like to review others’ initial comments and potential suggested modifications before making recommendations for approval, we generally support the following pilots and R&D proposals, as they are described in CenterPoint’s Plan:

- Pilot I (New Networked Geothermal Systems);
- Pilot L (Industrial Electrification Incentives);
- Pilot M (Commercial Hybrid Heating);
- Pilot N (Residential Deep Energy Retrofits and Electric Air Source Heat Pumps);

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<sup>2</sup> Comments of Sen. Weber, Minn. Sen., Floor Debate, 92nd Minn. Leg., Reg. Sess. at 04:34 (May 6, 2021), available at: [https://mnsenate.granicus.com/player/clip/7133?view\\_id=5&redirect=true&h=fde54dd20777b2480b739c3ff7c9746d](https://mnsenate.granicus.com/player/clip/7133?view_id=5&redirect=true&h=fde54dd20777b2480b739c3ff7c9746d).

<sup>3</sup> Minn. Stat. § 216B.2427 Subd. 10.

<sup>4</sup> Minn. Stat. § 216B.2427.

<sup>5</sup> Minn. Stat. § 216H.02, subd. 1.

- Pilot O (Small/Medium Business GHG Audit);
- The Weatherization Blitz R&D project

CUB believes these pilots utilize cost-effective pathways to reduce GHG emissions and optimize customer benefits. Such pilots should be prioritized for approval.

- ii. *CUB supports Pilot E with a minor modification to more closely align the project with Minnesota's emissions reductions goals and the NGIA statute.*

Utilities with more than 800,000 customers are directed by statute to include in their first-filed NGIA plan a pilot program designed to “provide innovative resources to industrial facilities whose manufacturing processes, for technical reasons, are not amenable to electrification.”<sup>6</sup> Hydrogen produced from carbon-free electricity (“Green Hydrogen”) is one of the named innovative resources that can be used for this purpose. CUB believes Pilot E, which utilizes Green Hydrogen, should be modified to more reasonably align with the state’s overarching goal of lowering geologic gas throughput and reducing system emissions.

Under Pilot E, or the “Industrial or Large Commercial Hydrogen and Carbon Capture Incentives” pilot, CenterPoint proposes to identify a large commercial or industrial customer interested in installing a power-to-hydrogen demonstration project. The Company will support project development through financial assistance with feasibility studies and actual project costs. This pilot could utilize hydrogen as a means of decarbonizing industrial manufacturing processes that are otherwise difficult to electrify and thus remain greenhouse gas emission intensive. CUB supports this pilot with what we believe would be a minor modification.

Although the requirement to include a pilot providing innovative resources to industrial facilities not amenable to electrification may already be met through other pilots offered in CenterPoint’s proposal, CUB encourages the Company and the Commission to consider prioritizing the decarbonization of industrial facilities that are not amenable to electrification, rather than large commercial operations that do not necessarily need to rely on hydrogen to decarbonize their operations. We believe this adjustment will provide valuable lessons learned that aid in Minnesota’s efforts to achieve a net-zero emissions economy by 2050.

- iii. *Pilot D should not be approved without additional explanation and detail on how it differs from CenterPoint’s existing Minneapolis facility.*

Pilot D, or the “Green Hydrogen Blending into Natural Gas Distribution System” pilot, is the second Green Hydrogen pilot in CenterPoint’s NGIA Plan. CUB hesitates to support Pilot D as proposed, largely due to concerns regarding cost-effectiveness and overall scalability. Through Pilot D, CenterPoint seeks to build, own and operate a 1-megawatt Green Hydrogen plant at an existing Company facility in Mankato, Minnesota. The project also includes installation of dedicated solar panels to assist with the generation of electricity for use in hydrogen production, an electrolyzer, and other necessary systems and equipment needed to generate, interconnect, and blend hydrogen into the gas distribution system. CenterPoint also notes the potential for adding hydrogen storage at the new facility. Pilot D represents the fourth most expensive pilot in terms of Estimated Lifetime Utility Cost

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<sup>6</sup> Minn. Stat. § 216B.2427, Subd. 7.

(approximately \$22,961,186),<sup>7</sup> but ranks twelfth in terms of Estimated Lifecycle GHG Reductions (only 27,993 metric Tons of CO<sub>2</sub>e).<sup>8</sup> CenterPoint estimates a 20-year facility life for the pilot.<sup>9</sup>

CUB's primary concern is that Pilot D is duplicative of an already-existing Green Hydrogen pilot owned and operated by CenterPoint in Minneapolis ("the Minneapolis facility").<sup>10</sup> The Minneapolis facility, like Pilot D, is a 1-megawatt Green Hydrogen pilot designed to blend up to 5 percent hydrogen and inject it into CenterPoint's distribution system. Annual GHG emission reductions of around 1,200 tons of CO<sub>2</sub>e were expected for the pilot.<sup>11</sup> Construction was completed in 2022 and the Company began injecting small amounts of hydrogen into the gas system in 2023. CUB recommends that the Company focus on this existing pilot, and lessons that can be derived from it with additional time, before proceeding with Pilot D.

The Minneapolis facility has been operational for over a year and produces an estimated 10,855 dekatherms (Dth) annually. This facility, like Pilot D, was proposed to operate at a maximum capacity of around 20,000 Dth per year.<sup>12</sup> It has thus far fallen significantly short of meeting this operational threshold. According to the Company, the facility has, at times, been offline or operating at partial capacity due to "routine maintenance, power failures, communication failures, equipment or component malfunctions, software changes, design changes, personnel availability, repairs, [and] testing."<sup>13</sup> The Company anticipates incremental progress will be made towards reaching the expected capacity as more is learned about the system.

The existence of these ongoing issues makes us question the prudence of pursuing Pilot D at this point in time. CenterPoint's Minneapolis-based pilot program is far from reaching its full potential, which suggests the proposal for another, similar Green Hydrogen blending pilot is premature. Although CenterPoint identifies several features of Pilot D that distinguish the project from the Minneapolis facility—such as the use of on-site solar for a small portion of electricity generation rather than only utilizing electricity procured from the grid—CUB lacks confidence those differences would alter the facility's operation or output to a degree that warrants Pilot D's substantial costs.<sup>14</sup>

Also importantly, Pilot D is one of seven pilots that CenterPoint prioritized for spending "due to [its] high potential scalability and transformative potential for the gas distribution system."<sup>15</sup> However, current research on blending Green Hydrogen into gas distribution systems suggests there are

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<sup>7</sup> CenterPoint NGIA Plan at 9.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*, Exhibit D at 11.

<sup>10</sup> *Id.*, Exhibit B at 18.

<sup>11</sup> *In the Matter of an Inquiry into Utility Investments that May Assist in Minnesota's Economic Recovery from the COVID-19 Pandemic*, Docket No. E,G-999/CI-20-492, Petition for Review of Proposed Investments by CenterPoint Energy at 8 (Dec. 18, 2020); *see also* CenterPoint NGIA Plan, Exhibit D at 12 (estimating Pilot D will result in GHG emissions reductions of 4,199 tons of CO<sub>2</sub>e during the 5-year plan, or approx. 1,399 tons of CO<sub>2</sub>e per year beginning in year three, after proposed facility construction is completed).

<sup>12</sup> *See* CenterPoint Response to CUB-021 (attached as Ex. CUB-021, estimating Pilot D's total capacity to be 21,160 Dth).

<sup>13</sup> *Id.*

<sup>14</sup> *See* CenterPoint Response to CEO-025 (attached as Ex. CEO-025), citing the addition of on-site solar power supply and a potential hydrogen storage system, as well as differences in the electrolyzer support system and "potentially the electrolyzer supplier," as the distinguishing features between Pilot D and the Minneapolis facility; *but see* CenterPoint NGIA Plan, Exhibit D at 10 (stating the Company "expect[s] that the pilot will leverage more grid electricity than on-site solar production"). Based on CenterPoint's statements it is unclear whether the *type* of electrolyzer will be different or if only the supplier may change.

<sup>15</sup> CenterPoint NGIA Plan at 14.

substantial obstacles to the successful scalability of such projects.<sup>16</sup> Like the Minneapolis facility, Pilot D only aims to blend between 0.5 to 5 percent hydrogen into the distribution system.<sup>17</sup> Because hydrogen has a comparatively low volumetric energy density, a higher volume of blended gas would be needed to achieve the same energy output as natural gas. Using blended hydrogen at low percentages can therefore be inefficient in the current gas system.<sup>18</sup> Moreover, research shows that introducing even small concentrations of hydrogen into the gas distribution system can result in damaging effects to pipelines that could necessitate replacement at additional costs.<sup>19</sup> Given the known hurdles of hydrogen blending, the substantial overlap between Pilot D and the Minneapolis facility, as well as the substantial projected cost of Pilot D, CUB recommends the Commission reject Pilot D. CenterPoint should further develop the existing Minneapolis facility and gain a greater understanding of lessons learned before carrying over that knowledge to a new pilot.

## **B. Some Aspects of the NGIA Plan Should be Further Clarified or Modified.**

There are several areas of CenterPoint's Plan that could be improved with additional detail, explanation, or modification. We respectfully request that CenterPoint address the concerns and questions discussed below in Reply Comments.

- i. Challenges arising under the NGIA statute's "50 percent requirement" warrant careful consideration.*

The NGIA Statute prohibits the Commission from approving an NGIA plan "unless . . . 50 percent or more of the utility's costs approved by the commission for recovery under the plan are for the procurement and distribution of renewable natural gas, biogas, hydrogen produced via power-to-hydrogen, and ammonia produced via power-to-ammonia" (the "low-carbon fuels").<sup>20</sup> This requirement (which we hereinafter refer to as the "50 percent requirement") presents challenges for the Company and Commission. First, it may put pressure on the utility to propose substantial investments in pilots involving low-carbon fuels to counterbalance the costs of other pilots that don't include investments in those fuels. Relatedly, it creates a disincentive to pursue opportunities to lower the costs of low-carbon fuel pilots if doing so reduces the share of these pilots to less than 50 percent of the total plan budget.

With this in mind, the Commission should not interpret the 50 percent requirement as compelling it to approve underdeveloped pilots involving low-carbon fuels *just so* it is permitted to approve an NGIA Plan that may hold promise in other ways. A more reasonable approach would be for the Commission to approve a modified plan that eliminates or lowers the approved costs for some pilots so that the 50 percent requirement is met at a lower, overall budgeted cost for the full NGIA Plan. If pilots involving low-carbon fuels are rolled out successfully in CenterPoint's first Plan, then it may be

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<sup>16</sup> Kevin Topolski, et. al., *Hydrogen Blending into Natural Gas Pipeline Infrastructure: Review of the State of Technology*, NREL (Oct. 2022), p. iv, available at <https://www.nrel.gov/docs/fy23osti/81704.pdf> (hereinafter "NREL Hydrogen Blending Report") ("Many blending demonstrations internationally have proven that low-hydrogen-percentage blending is feasible under very specific scenarios with limited end-usage applications on both high-pressure transmission lines and low-pressure distribution lines.").

<sup>17</sup> CenterPoint NGIA Plan, Exhibit D at 14.

<sup>18</sup> *Hydrogen Basics*, NREL (last visited Jan. 10, 2024), <https://www.nrel.gov/research/eds-hydrogen.html>.

<sup>19</sup> NREL Hydrogen Blending Report at 13 ("Blending hydrogen can have systemic performance impacts on pipeline operation and gas end-use due to the differences in natural gas and hydrogen physical properties.").

<sup>20</sup> Minn. Stat. § 216B.2427 Subd. 2 (d)(1).

appropriate for CenterPoint to request the Commission's approval to scale up or expand those pilots in future plans.

Pilots A and B discuss proposals to purchase renewable natural gas ("RNG") from anaerobic digestion facilities under development by Hennepin, Ramsey and Washington counties. Pilot C describes a to-be-issued request for proposals ("RFP") soliciting bids for the purchase of RNG from third-party producers and developers. The estimated incremental costs of Pilot C are the highest of all 18 proposed pilots, representing approximately 34 percent of the total costs counting against the Company's NGIA budget<sup>21</sup> and approximately 36 percent of the total estimated lifetime utility costs under the Plan (as originally filed).<sup>22</sup> It appears that the estimated costs of Pilot C may increase even further if CenterPoint needs to shift costs from Pilot A to Pilot C in order to address changing circumstances with Hennepin County.<sup>23</sup>

We are generally concerned that the Company relies on these pilots—Pilot C in particular—in a way that inhibits cost-effective planning. Pilot C is built around a proposed spending amount (i.e. whatever the Company must spend to meet the 50 percent requirement) rather than a proposed procurement amount (i.e. a proposed quantity of RNG to be purchased).<sup>24</sup> If the Pilot C RFP does not produce as many bids as the Company anticipates, or if the competitive bidding process results in lower costs than expected for this Pilot, the Company may face pressure to spend more than is necessary or prudent on Pilot C in order to ensure the Plan, overall, remains compliant with the 50 percent requirement. Further, it is unclear to us what legal consequences arise if an approved NGIA Plan does not lead to *actual* expenditures in low-carbon fuels that total at least 50 percent of actual Plan costs.

Below are additional concerns we have about Pilots A-C. We welcome the Company to respond to these concerns in Reply Comments.

- In Pilots A-C, the Company anticipates entering into RNG procurement contracts with 10+ year terms and a fixed price per MMBtu.<sup>25</sup> This differs from the Company's normal practice of securing most of its gas commodity purchases through short term supply contracts (e.g., with a term of one year or less) and spot purchases, with the purchase price predominantly tied to external market indexes.<sup>26</sup> We understand a long-term contract for RNG may allow the

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<sup>21</sup> CenterPoint NGIA Plan at 9 (Table 1) (describing how estimated "costs counting against NGIA budget" are "costs that count against the budget cap described in the NGIA [and] only include utility costs expected to be incurred during the five-year plan and are net of certain savings, including savings due to reduced need to purchase gas, during the term of the five-year plan").

<sup>22</sup> *Id.* (describing estimated lifetime utility costs as follows: "This represents the expected net cost impact to customers over the lifetime of each pilot. 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. These figures are also net of expected savings due to reduced need to purchase gas and other avoided operations and maintenance costs, which results in certain pilots having negative utility costs, or a lifetime utility cost that is lower than costs counting against the NGIA budget. Participant costs are not included").

<sup>23</sup> See *In the Matter of the Petition by CenterPoint Energy for Approval of its First Natural Gas Innovation Plan*, Docket No. G-008/M-23-215, CenterPoint Letter – Pilot Allocation Adjustments Planned for Reply Comments (Jan. 3 2024).

<sup>24</sup> CenterPoint NGIA Plan, Exhibit D at 7 (noting that "CenterPoint Energy plans to spend approximately \$27.8M within the five-year innovation plan period on RNG selected through this RFP to satisfy the NGIA requirement that 50 percent or more of the costs in this Plan be for RNG, biogas, hydrogen produced via power-to-hydrogen, and ammonia produced via power-to-ammonia.")

<sup>25</sup> See *id.* (explaining that CenterPoint "proposes to be flexible as to [Pilot C] contract length but anticipates that it will be able to secure a better price by entering into contracts of ten or more years").

<sup>26</sup> CenterPoint Response to CUB-006 (attached as Ex. CUB-006), see also *In the Matter of the Petition of CenterPoint Energy for Approval of a Recovery Process for Cost Impacts Due to February Extreme Gas Market Conditions*, Docket No. G-008/M-21-138, Gas

Company to negotiate a lower purchase price (in terms of dollars per unit of gas purchased) than a shorter-term contract, but it also comes with risk. Namely, we assume it will be more difficult for the Company to terminate the contract or adjust its terms if the pilot proves to be unsuccessful or costlier than the Company anticipates. Also, entering into multiple 10-plus year procurement contracts involving over \$66 million in estimated lifetime utility costs (for Pilot C alone<sup>27</sup>) strains the definition, both in terms of cost and duration, of what could, or should, be characterized as a “pilot.” For these reasons, we believe the Commission should be wary of approving too large a budget for Pilot C in this first Plan. Once the feasibility and costs of utilizing RNG are better understood, it may be appropriate for the Company to increase its RNG purchases, and/or conduct additional RFPs in future plans.

- The Company does not know the price at which it will purchase RNG under Pilots A, B or C. Instead, the Company explains that it “plan[s] [for Pilots A and B] to identify a fair market price closer to the date of contracting”<sup>28</sup> and (for Pilot C) to determine a purchase price based on a variety of factors.<sup>29</sup> It is unclear how significantly the estimated costs of these pilots will change once those prices are established. We are concerned that the Company may lose leverage and incentive to negotiate a fair market price for RNG if the Commission approves recovery of the costs of RNG (such as through the purchased gas adjustment (“PGA”), which we discuss in more detail below) before those prices are known.
- For Pilot C, CenterPoint suggested it would “give a preference to bundled RNG” in the RFP process but would also “consider purchasing unbundled RNG (i.e. without the commodity gas).”<sup>30</sup> This proposal raises several questions. First, it is unclear whether Pilot C funds used for the purchase of environmental attributes alone would be counted towards the statutory requirement that 50 percent or more of the plan costs be used for “the procurement and distribution of renewable natural gas, biogas, hydrogen produced via power-to-hydrogen, and ammonia produced via power-to-ammonia.” Purchasing environmental attributes alone is neither procuring nor distributing a low-carbon fuel, so it is uncertain if all of Pilot C’s funds could count towards that requirement. Second, it is unclear how the purchase of environmental attributes alone would constitute a “pilot” and what, if any, learning outcomes could be derived from it.
- CenterPoint notes it “expects robust interest in the [Pilot C] RFP because many developers have reached out regarding the potential sale of RNG to the Company as a general matter but not in specific relations to NGIA.”<sup>31</sup> However, when asked for additional information, the Company identified few such producers or developers that are actively producing RNG (as opposed to planning “future projects in various stages in development”).<sup>32</sup> For those entities

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Utilities Joint Initial Comments in Response to August 23, 2022 Notice at 9 (Sept. 15, 2022) (stating that with respect to “setting benchmarks for natural gas commodity costs, one significant challenge with gas purchasing incentive mechanisms is the fact that the majority of natural gas commodity purchases are either through a) short- to medium-term contracts predominantly tied to some external market index, or b) from spot gas purchases where the price is set in the daily market”).

<sup>27</sup> See CenterPoint NGIA Plan at 9.

<sup>28</sup> CenterPoint NGIA Plan, Exhibit D at 5.

<sup>29</sup> See generally, CenterPoint NGIA Plan at Exhibit Q.

<sup>30</sup> CenterPoint NGIA Plan, Exhibit D at 7.

<sup>31</sup> CenterPoint Public Response to CUB-009 (attached as Ex. CUB-009 P. A non-public version of this response may be requested from CenterPoint).

<sup>32</sup> See CenterPoint Public Responses to CUB-009 & CUB-018 (attached as Ex. CUB-018 P. A non-public version of these responses may be requested from CenterPoint).

that are not actively producing RNG, it is unclear how quickly they will be able to build facilities necessary to facilitate production. If RNG production is delayed until after the NGIA Plan period has ended, or if demand for available RNG otherwise exceeds available supply during the Plan period, CenterPoint may end up spending less than anticipated procuring RNG under Pilot C. It is unclear what legal consequences arise if CenterPoint's *actual* (vs. budgeted) expenditures under an approved NGIA plan do not meet the 50 percent requirement.

- CenterPoint has already “received information from Hennepin County that will likely impact the feasibility of Pilot A.”<sup>33</sup> It seems CenterPoint may be planning to shift estimated costs for Pilot A into Pilot C.<sup>34</sup> For the reasons described above, we are concerned about further expanding the Pilot C budget at this stage. If Pilot A appears infeasible, we believe a more appropriate action would be for CenterPoint to withdraw it, or the Commission not approve it as part of this first Plan. We understand this would require the Company to reduce expenditures for other pilots in order to meet the 50 percent requirement.
- The Company notes that “a biogas upgrading system is required to produce pipeline quality RNG” and that “it is yet to be determined whether CenterPoint Energy would invest in biogas upgrading equipment and what the associated costs would be.”<sup>35</sup> In the draft RPF included as Attachment Q, CenterPoint requests information on project financing from potential bidders, noting:

For projects interconnecting with CenterPoint Energy's gas distribution system, CenterPoint Energy may be able to provide financial participation in the project, provided that investments are in system components (e.g., biogas upgrading or compression equipment) that would be wholly owned by CenterPoint Energy, and the price of RNG is sufficiently discounted to warrant the investments. Indicate whether this is part of your proposal, or if you would be interested in discussing further.

Similar to above, it is unclear how quickly CenterPoint would be able to install a biogas upgrading system if one is needed. If RNG purchases are delayed as a result of the need for such a system, it is unclear what legal consequences would arise if CenterPoint's *actual* (vs. budgeted) expenditures under an approved NGIA plan do not meet the 50 percent requirement.

- Finally, underlying many of the above uncertainties and concerns regarding Pilots A-C is the question of what Commission “approval” of CenterPoint's NGIA plan means at this stage. The NGIA statute prohibits approval of an NGIA Plan unless the Commission finds several requirements are met, including that “the costs and revenues projected under the plan are reasonable in comparison to other innovative resources the utility could deploy to reduce greenhouse gas emissions.”<sup>36</sup> Based on the information provided thus far, CUB does not believe the filed Plan includes sufficient detail about Pilot C, in particular, to enable this finding.

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<sup>33</sup> See *In the Matter of the Petition by CenterPoint Energy for Approval of its First Natural Gas Innovation Plan*, Docket No. G-008/M-23-215, CenterPoint Letter – Pilot Allocation Adjustments Planned for Reply Comments (Jan. 3 2024).

<sup>34</sup> *Id.* (stating the Company “expects that the revised portfolio would remove Pilot A and would allocate additional funding to Pilot C: RNG Request for Proposal (“RFP”) Purchase”).

<sup>35</sup> See CenterPoint Response to CUB-005 (attached as Ex. CUB-005).

<sup>36</sup> Minn. Stat. § 216B.2427 Subd.2 (b).



As noted above, the purchase price for RNG and the costs of any needed biogas upgrading equipment are not yet known. This means the *quantity* of RNG the Company is able to purchase through the RFP—and the degree to which that quantity offsets the Company's procurement of GHG-emitting geologic gas—is also not yet known. For this reason, it would be helpful to understand whether CenterPoint views approval of Pilot C as limited to approving the RFP detailed in Exhibit Q to move forward, or if CenterPoint views approval of Pilot C as final approval (i.e., approval without further Commission review) to spend “approximately \$27.8M within the five-year innovation plan period on [a to-be-determined quantity of] RNG selected through this RFP”<sup>37</sup> and to enter into to-be-written, likely long-term contracts to effectuate those purchases.

We respectfully request that CenterPoint articulate its understanding of what Commission approval entails in their reply comments.

- ii. *CenterPoint's incorrect calculation of incremental costs complicates the review and approval process for the Company's NGIA Plan.*

CenterPoint has acknowledged that some of the incremental costs included in its Plan were incorrectly calculated. The Company identified that, instead of using the forecasted per-dekatherm commodity cost value for the plan's start year of 2024 (\$5.13), it employed the 2023 value of \$5.41 for Pilots A, B, and C. This error resulted in gas commodity costs (and consequential savings) being calculated at higher-than-actual values. After correcting its mistake, the Company estimated that innovation plan portfolio costs would exceed statutory cost caps by approximately \$550,000.<sup>38</sup> Because Pilots A, B, and C extend well beyond the 5-year plan term contemplated by the NGIA statute, the quantitative lifetime costs of the project will also be higher than originally estimated.

CenterPoint proposes to revise its NGIA portfolio in Reply Comments to ensure incremental costs remain below the statutory limit.<sup>39</sup> We expect this revision will have a significant effect on the overall Plan. The \$550,000 overage associated with CenterPoint's calculation error is more than the entire 5-year incremental costs associated with each of Pilots G, K, L, and P. In other words, the Company must eliminate an entire pilot's worth of expenses to remain within the NGIA statutory cost cap. Because these modifications have not yet been implemented, we are unable to gauge the reasonableness of the Company's approach. We respectfully request CenterPoint provide its justification for Plan adjustments pursued as a result of its incremental cost miscalculations.

- iii. *The Commission should not allow carbon capture measures to be included in CenterPoint Energy's NGIA Plan until the Company shows the measures cannot reasonably be pursued through ECO.*

The NGIA statute is designed to minimize the duplication of efforts already reasonably being pursued through the Energy Conservation and Optimization Act (“ECO,” formerly known as the Conservation Improvement Program, “CIP”). ECO requires gas utilities to establish savings goals equivalent to one

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<sup>37</sup> CenterPoint NGIA Plan, Exhibit D at 7.

<sup>38</sup> See CenterPoint UPDATE Re: Correction to Commodity Cost Forecasts Impacting RNG Pilot Cost Estimates, *attached as CPE-UPDATE*.

<sup>39</sup> See CenterPoint Response to CUB-023 (attached as Ex. CUB-023).

percent of their gross annual retail energy sales,<sup>40</sup> which can be achieved through utility programs focused on energy efficiency, conservation, efficient fuel switching, and load management. It is a goal of both NGIA and ECO to reduce the amount of natural gas delivered to customers<sup>41</sup> and to lower greenhouse gas emissions associated with the use of natural gas.<sup>42</sup> Because of these overlapping objectives, the legislature expressly excluded from NGIA any energy efficiency or strategic electrification investments that could reasonably be included in utilities' ECO triennial plans.<sup>43</sup>

Exhibit I of the Company's filing provides a cursory analysis of the overlapping nature of ECO and NGIA investments. Notably, several pilots statutorily required to be in NGIA plans include technologies or resources that are also addressed, to some extent, in ECO.<sup>44</sup> CUB does not take issue with the inclusion of pilots required by law to be offered through NGIA. However, we are concerned the Company may be prematurely duplicating efforts to pursue carbon capture technologies in both ECO and NGIA.

The Company is currently evaluating CarbinX technologies through an ECO research and development ("R&D") field pilot and has completed four of its ten planned unit installations.<sup>45</sup> The pilot is designed to evaluate performance, assess energy savings, and determine the appropriateness of "includ[ing] the technology in future [ECO] programming."<sup>46</sup> Without knowing the lessons learned from this pilot, it is premature to say carbon capture technologies could not reasonably be pursued through ECO. Preliminary data on CarbinX units is expected to be available in Q2 of 2024, with draft reporting following in Q1 of 2025.<sup>47</sup> CUB recommends the Company focus on learning lessons from this existing pilot before proceeding with offering carbon capture measures in the NGIA.

**C. The Commission should deny CenterPoint's request to spend up to 25 percent more than budgeted for pilots with higher-than-expected expenditures without seeking additional approval from the Commission.**

CenterPoint requests that "it 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."<sup>48</sup> We understand that the costs included in CenterPoint's

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<sup>40</sup> Minn. Stat. § 216B.241, subd. 1c.

<sup>41</sup> Minn. Stat. § 216B.2427, subd. 10.

<sup>42</sup> Minn. Stats. §§ 216B.2427, subd. 2; 216B.2401(a).

<sup>43</sup> *Id.* at subds. 1(f); 1(q)(2); see also *In the Matter of Establishing Frameworks to Compare Lifecycle Greenhouse Gas Emission Intensities of Various Resources, and to Measure Cost Effectiveness of Individual Resources of Overall Innovation Plans*, Docket No. G-999/CI-21-566, Commission Order at 1 (Sep. 12, 2022) (directing utilities to demonstrate proposed pilots are not offered through—nor reasonably capable of being incorporated into—ECO triennial plans).

<sup>44</sup> See, e.g., Minn. Stat. § 216B.2427, Subds. 6, 7, 8, and 9 (requiring pilots focused on: (1) thermal energy audits for small- to medium-sized businesses; (2) deep energy retrofits and cold climate air-source heat pump installations; (3) innovative resources for hard-to-electrify industrial processes; and (4) facilitating the development, expansion, or modification of district energy systems).

<sup>45</sup> *Id.*; see also *In the Matter of CenterPoint Energy's 2022 Gas Energy Conservation and Optimization Report*, Docket No. G-008/CIP-20-478, CenterPoint 2022 ECO Compliance Report at 53 (May 1, 2023) (hereinafter "CenterPoint 2022 ECO Compliance Report") (stating that permitting approval was first obtained in 2022, after which the first of ten installations was completed); CenterPoint NGIA Plan, Exhibit I at 1 (stating that CenterPoint "piloted CarbinX units in its . . . CIP Triennial Plan" and that while four units have been installed, savings information was not yet available).

<sup>46</sup> CenterPoint 2022 ECO Compliance Report at 53.

<sup>47</sup> See CenterPoint Response to DOC-037 (attached as Ex. DOC-037).

<sup>48</sup> CenterPoint NGIA Plan at 10.

NGIA Plan are estimated costs, and that actual expenditures may differ from those estimations. Therefore, we find it reasonable of the Company to request some flexibility in describing the budgeted costs for various pilots. However, allowing CenterPoint too much flexibility could lead to complex consequences. For example, it is unclear to us what the legal consequences would be of permitting the Company to spend up to 25 percent more on pilots E-L if doing so causes the expenditures for pilots involving low-carbon fuels to fall below the required 50 percent threshold.

Beyond the concerns associated with CenterPoint's low-carbon fuel proposals, allowing budget modifications through avenues outside those established by statute could seriously impact the cost-effectiveness of pilot programs. The Commission has been directed to only approve an NGIA plan if it produces net benefits, promotes renewable energy resources and GHG emission reductions at costs consistent with statutory caps, and includes costs and revenues that are reasonable in relation to other alternative resources.<sup>49</sup> Adjusting pilot budgets by up to 25 percent necessarily requires reducing other pilot expenditures by proportionate amounts. Doing so disrupts the cost-benefit calculations upon which the Commission's decision to approve the Plan are based.

Minn. Stat. § 216B.2427, subd. 2(f) already contemplates a process for proposing budget amendments. In each of its annual NGIA reports, CenterPoint is required to file information on work completed, including any "modifications to elements of the plan proposed by the utility."<sup>50</sup> There is no other avenue detailed in statute for adjusting plan attributes, especially none that would allow the Company to increase or decrease pilot spending by up to 25 percent. Upon reviewing CenterPoint's annual reports, the Commission "may" (1) approve the continuation of a pilot program included in the plan, with or without modifications; (2) require the utility to file a new or modified pilot program or plan; or (3) disapprove the continuation of a pilot program or plan.<sup>51</sup> This allows the Commission to have both sufficient oversight of the Company's Plan throughout the duration of the five-year term and discretion to determine whether a difference between actual vs. budgeted costs warrants modification of a pilot or disapproval of its continuation.

For these reasons, we recommend the Commission reject CenterPoint's request to spend up to 25 percent more than budgeted for pilots with higher-than-expected expenditures without prior approval. Rather, adjustments to pilot budgets should be pursued and evaluated through the modification process already established by the NGIA statute.

**D. The Commission should approve, with conditions, CenterPoint Energy's proposal for recovering the costs associated with its 2023 NGIA plan, including the requested variance to Minn. R. 7825.2400.**

The NGIA allows for prudently incurred costs under an approved plan to be recoverable either (1) through the utility's purchased gas adjustment ("PGA"); (2) in the utility's next general rate case; or (3) via annual adjustments.<sup>52</sup> CenterPoint indicates they intend to utilize all three cost-recovery options.

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<sup>49</sup> Minn. Stat. §§ 216B.2427, subds. (2)(b)(1) - (2)(b)(6).

<sup>50</sup> *Id.* at subd. 2(f)(7).

<sup>51</sup> *Id.* at subd. 2(g).

<sup>52</sup> CenterPoint NGIA Plan at 19 (citing Minn. Stat. § 216B.2427, subd. 2(c)).

*i. Rate case recovery*

CenterPoint has included some NGIA costs in its recent rate case filing.<sup>53</sup> The Commission should evaluate recovery of such costs pursuant to the normal review process conducted as part of that rate case proceeding.

CUB recommends that, if the Commission approves the Company's NGIA Plan (or a modified version thereof), the Commission should specify whether certain future, yet-to-be determined costs described in that Plan are only recoverable as part of a future rate case proceeding (as opposed to through the PGA or other annual adjustments.) For example, in a response to a CUB information request about Pilot C, the Company notes that "a biogas upgrading system is required to produce pipeline quality RNG" and that "it is yet to be determined whether CenterPoint Energy would invest in biogas upgrading equipment and what the associated costs would be. Costs for these systems are very site-specific and CenterPoint Energy expects that costs of biogas upgrading equipment would vary significantly between projects."<sup>54</sup> To the extent CenterPoint invests in a biogas upgrading system, we believe it is important for the Commission to hold CenterPoint accountable for ensuring that investment is prudent and cost-effective. The best way to do this is to require CenterPoint to seek recovery of those costs through a general rate case.

*ii. PGA recovery*

In order to recover certain costs through the PGA, CenterPoint requests that the Commission permit a variance to certain PGA regulations. Minn. Stat. § 216B.16, subd. 7 authorizes the Commission to "permit a public utility to file rate schedules containing provisions for the automatic adjustment of charges for public utility service in direct relation to changes in: . . . (2) direct costs for natural gas delivered; [and] (3) costs for fuel used in generation of electricity or the manufacture of gas[.]" Minnesota Rules further establish procedural requirements around PGA recovery<sup>55</sup> and define "the cost of purchase gas" and "the cost of fuel consumed in manufacture of gas."<sup>56</sup> Both definitions reference specific accounts in the Minnesota Uniform System of Accounts but omit from that list RNG (Account 804.2) or electricity purchased for hydrogen production (Account 735). In order for CenterPoint to recover the cost of RNG and electricity (used for Green Hydrogen production) through the PGA mechanism, the Commission would need to grant a variance that widens the definitions of "the cost of purchase gas" and "the cost of fuel consumed in manufacture of gas."

As the Company notes, Minn. R. 7829.3200 requires the Commission to grant a variance to its rules when it determines enforcement of the rule would impose an excessive burden; granting the variance would not adversely affect the public interest; and granting the variance would not conflict with standards proposed by law. CenterPoint argues that these conditions are each met, in part by pointing to the NGIA statute, "which expressly authorizes the recovery of costs incurred to implement an NGIA Plan under Minn. Stat. § 216B.16, subd. 7 via the utility's PGA."<sup>57</sup>

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<sup>53</sup> *In the Matter of the Application of CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas for Authority to Increase Rates for Natural Gas Utility Service in Minnesota*, Docket No. G-008/GR-23-173, Direct Testimony of Nicole A. Gilcrease at 71 (Nov. 1, 2023) (explaining that CenterPoint is "proposing a Plan Year adjustment related to NGIA expenses of \$15.5M").

<sup>54</sup> See CenterPoint Response to CUB-005 (attached as Ex. CUB-005).

<sup>55</sup> See Minn. R. §§ 7825.2390 – 7825.2921.

<sup>56</sup> Minn. R. § 7825.2400, subps. 10 and 12.

<sup>57</sup> CenterPoint NGIA Plan at 22.

CUB generally supports CenterPoint's request for a variance to allow cost recovery of bundled RNG and electricity used in the production of Green Hydrogen through the PGA mechanism. However, CUB believes such a variance should be subject to annual review during the yearly NGIA Plan evaluation, and not automatically granted for the entire duration of any related contract agreements with outside developers.<sup>58</sup> Minn. R. 7829.3200 subp. 3 provides: "[u]nless the commission orders otherwise, variances automatically expire in one year." To ensure the terms of the variance are clear, we recommend the Commission clarify that such approval will expire one year from the date of its Order. If the Company seeks to extend the variance after that first year, we recommend that it renew its request in its annual NGIA report. When making such a request, the Company should include additional specificity about what costs will pass through the PGA, including any details about costs negotiated in RNG contracts established through Pilots A-C. Because these charges will automatically pass through to customers in the PGA, proactive review by the Commission will help ensure customers do not experience any unexpected negative impacts.

Lastly, we note one potential exception to CUB's support for the variance regarding Pilot C. As noted above, CenterPoint has stated that, while the Company will "give a preference to bundled RNG" in their RFP process, it would also consider purchasing unbundled environmental attributes of RNG *without* the commodity gas.<sup>59</sup> In this case, CenterPoint would be purchasing the environmental attributes, not as a direct cost associated with delivered gas, but as an offset. CUB believes this might require an additional variance analysis under Minn. R. 7829.3200 to determine whether it is also within the public interest to recover those costs through the PGA mechanism, and requests CenterPoint provide further information on its understanding of this process in Reply Comments.

**E. The Commission should not approve CenterPoint Energy's proposed cost-effectiveness objectives, as the Company's proposal is premature.**

In determining whether to approve an innovation plan proposal, the Commission must find that the costs and revenues of the utility's plan are "reasonable in comparison to other innovative resources the utility could deploy."<sup>60</sup> In recognition of this requirement, Minn. Stat. § 216B.2428 directs the Commission to establish a cost-benefit framework for comparing innovative resources and determining the cost-effectiveness of resources and plans.<sup>61</sup> If a utility's NGIA Plan is approved, the Commission is required to utilize this cost-benefit analysis to establish cost-effectiveness objectives against which Plan performance will be evaluated.<sup>62</sup> Utilities must thereafter annually report on their progress toward meeting those objectives.<sup>63</sup> If the Commission determines such objectives are "successfully achieved" at the end of an NGIA term, the statutory cap on incremental costs will be adjusted upward in subsequent plan filings.<sup>64</sup>

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<sup>58</sup> For example, Pilot C contemplates entering in up to ten-year contracts for the purchase of RNG from developers. CUB does not support granting a variance for cost recovery through the PGA indefinitely during those ten years without any period review of related bill impacts.

<sup>59</sup> CenterPoint NGIA Plan, Exhibit D at 7.

<sup>60</sup> Minn. Stat. § 216B.2427, subd. 2(b)(6).

<sup>61</sup> Minn. Stat. § 216B.2428, subd. 2.

<sup>62</sup> Minn. Stat. § 216B.2427, subd. 2(e).

<sup>63</sup> *Id.* at subd. 2(f)(6).

<sup>64</sup> *Id.* at subd. 3(c).

CenterPoint has proposed several cost-effectiveness objectives for its NGIA Plan. Although CUB understands CenterPoint's interest in establishing attainable objectives, the Company's proposal is premature. As contemplated in Minn. Stat. § 216B.2427, Subd. 2(e), cost-effectiveness objectives are to be developed "[u]pon approval of a utility's plan." Until approval is granted, the exact scope of CenterPoint's NGIA Plan is uncertain; the Commission may reject certain pilot projects or require modifications. Each of these changes impacts estimations for emission reductions, geologic gas savings, and cost-effectiveness. We therefore recommend the Commission delay approval of any specific objectives until the final parameters of the Plan are set.

With this overarching recommendation in mind, we would still like to highlight some disagreements we have with the objectives proposed by CenterPoint. Several of the Company's objectives are either immediately met upon approval of the Plan or are premised on outcomes that give no insight into the costs and benefits of relevant pilot programs. We find such objectives do not contribute to a sufficiently rigorous cost-effectiveness analysis and should not form the basis for determining the appropriateness of budget increases in subsequent NGIA plans.

*i. Perspectives Objectives*

CenterPoint proposes three "perspective" objectives based on the categories of costs identified in the Commission's Frameworks Order.<sup>65</sup> Included among these objectives are (1) achieving GHG savings at a lifetime utility cost of no more than \$200/MTCO<sub>2</sub>e; (2) ensuring 40 percent of customers served by residential weatherization and deep energy retrofit pilots qualify as low-income or are located in disadvantaged communities; and (3) supporting the development of four new sources of low-carbon fuels produced in Minnesota. CUB recognizes that the reasonableness of the Company's proposed emission cost-effectiveness objective is dependent on the scope and scale of the final approved Plan. We therefore make no recommendations on that objective at this time. However, CUB is concerned that the Company's low-carbon fuel objective does not provide a sufficient basis for cost-effectiveness evaluation. Pilots A, B, C, and D are all innovative resource projects capable of producing low-carbon fuels. As written, CenterPoint's proposed objective is easily met so long as its Pilot C RFP produces a minimal number of successful bids. We do not believe it is proper to premise an increase to the NGIA cost cap on achievement of this objective.

*ii. Environmental Objectives*

CenterPoint proposes to include environmental objectives based on the level of emissions reduction and geologic gas savings anticipated under its Plan. The focus of these objectives is directionally consistent with the NGIA's overarching goal to foster innovation that contributes to the state's greenhouse gas emissions goals and reduces natural gas throughput.<sup>66</sup> Rather than evaluating performance on a pilot-by-pilot basis, the Company recommends calculating environmental objectives on an aggregate level across the entirety of its Plan.<sup>67</sup> If pilots perform as expected, the

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<sup>65</sup> *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 Innovation Plans*, Docket No. G-999/CI-21-566, Order Establishing Frameworks for Implementing Minnesota's Natural Gas Innovation Act (June 1, 2022) (hereinafter "Commission Frameworks Order").

<sup>66</sup> Minn. Stat. § 216B.2427, subds. 2(a)(1) and 10.

<sup>67</sup> See generally CenterPoint NGIA Plan at 30-31.

Company will meet these cost-effectiveness thresholds.<sup>68</sup> Most evaluations are scheduled to occur in year five of the Plan and will be based on actual emissions reductions and greenhouse gas savings achieved. CUB generally views this as a reasonable method of verifying whether environmental benefits are realized in a manner consistent with the claims advanced by the Company in its NGIA proposal. Once again, however, we recognize that the specifics of these objectives may need to be adjusted based on the scope of the Plan ultimately approved by the Commission.

We believe the Commission should evaluate pilot-specific outcomes in addition to aggregate-level emissions reductions. In determining the effectiveness of the NGIA and specific technologies, it is essential to know whether the emissions reductions of individual pilots are above or below estimated levels, and at what cost basis those outcomes were achieved. Therefore, we recommend that CenterPoint include this information when submitting data on Plan cost-effectiveness. The Commission can thereafter use that data to inform its decisions on whether the Plan is performing in a cost-effective manner, or whether certain pilots should be modified, put to higher and better uses, or discontinued altogether.

### *iii. Socioeconomic and Innovation Objectives*

CenterPoint recommends several socioeconomic and innovation-related objectives for cost-effectiveness review. CUB supports the Company's goals supporting workforce development.<sup>69</sup> However, we believe several of the innovation objectives identified by the Company do not provide insight into the cost-effectiveness of the Plan and are easily achieved by CenterPoint's adherence to statutory requirements and traditional business practices.

The innovation objectives recommended by the Company are to support projects using at least six of the eight innovative resources listed in statute and to summarize learnings from completed research and development activities.<sup>70</sup> By definition, innovative resources include "biogas, renewable natural gas, power-to-hydrogen, power-to-ammonia, carbon capture, strategic electrification, district energy, and energy efficiency."<sup>71</sup> Many of these resources are already statutorily mandated to be included in CenterPoint's NGIA Plan. This includes requirements to develop innovative resource pilots focused on strategic electrification,<sup>72</sup> district energy, and energy efficiency.<sup>73</sup> At least 50 percent of the Company's Plan costs must also be devoted to RNG, biogas, power-to-hydrogen, or power-to-ammonia.<sup>74</sup>

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<sup>68</sup> *Id.* at n. 59, 61, 62, and 64 (explaining that the environmental objectives are based on emissions reductions expected from NGIA pilots).

<sup>69</sup> *Id.* at 31 (detailing CenterPoint's proposed socioeconomic objectives of supporting at least 4 projects that satisfy the Inflation Reduction Act requirements for prevailing wages and apprenticeships and providing additional workforce development through trainings, educational conferences, and supportive activities).

<sup>70</sup> *Id.* at 31-32.

<sup>71</sup> Minn. Stat. § 216B.2427, subd. 1(h).

<sup>72</sup> *Id.* at subd. 1(q) (defining "strategic electrification" as the "installation of electric end-use equipment in an existing building in which natural gas is a primary or back-up fuel source, or in a newly constructed building in which a customer receives natural gas service for one or more end-uses." The installation of such equipment must also produce a net reduction in GHG emissions, improve the load factor of the electric utility, and not be capable of reasonably being included in a utility's ECO plan).

<sup>73</sup> *See, e.g.*, Minn Stat. § 216B.2427, subds. 6, 8, and 9 (requiring utilities with more than 800,000 customers to (1) offer thermal energy audits and avenues for implementing recommended measures, including energy efficient technologies; (2) implement deep energy retrofit pilots and install cold climate air-source heat pumps in existing residential homes; and (3) offer a pilot that facilitates, develops, expands, or modifies district energy systems).

<sup>74</sup> *Id.* at subd. 2(d)(1).

CenterPoint should not be rewarded with an increased cost cap for simply meeting the minimum requirements for what must be included in a NGIA Plan. Further, while a summary of learnings is an appropriate outcome for R&D projects, it is unclear why this is a reasonable measure of cost-effectiveness. The lessons learned through ratepayer-funded research and development should be shared with the Commission regardless of whether an objective is based on such reports. For these reasons, we do not believe these are appropriate objectives and recommend the Commission reject them.

**F. The Commission should not grant CenterPoint Energy's request to require only "the majority" of cost-effectiveness objectives be met in order to grant an increase to the statutory budget cap for the Company's next NGIA plan.**

As noted above, the NGIA permits an increase to the statutory budget cap for a utility's subsequent plan "if the commission determines that the utility has successfully achieved the cost-effectiveness objectives established in the utility's most recently approved innovation plan."<sup>75</sup> CenterPoint proposes that the test for such an increase in funding "be achievement of the majority of [CenterPoint's] proposed [cost-effectiveness] objectives."<sup>76</sup> CenterPoint reasons that to require achievement of *all* objectives "would be an unreasonably high bar . . . before allowing additional funding for future NGIA plans."<sup>77</sup> We find this argument (regarding the achievement of all objectives) reasonable, but CenterPoint's request for the Commission to make a determination on this issue now is untimely.

We do not think the Commission has sufficient information (nor is there a pressing need) to make an immediate determination that qualifies how "successful achievement" is measured vis-à-vis a request to increase the permitted budget for CenterPoint's next NGIA Plan. The Commission has not yet established cost-effectiveness objectives for CenterPoint's first Plan, let alone evaluated whether/how the proposed pilots meet those objectives. As previously discussed, setting such objectives would be improper until a final determination has been made on the Company's Plan. Therefore, it is premature to suggest that meeting a "majority"—just over half—of the established objectives should be sufficient to warrant a budget increase in the Company's next plan.

We recommend the Commission either deny this request now or take no action on it. If the Company wishes to increase the statutory budget cap in its next NGIA plan, it should make that request when filing its next plan and explain how the conditions of Minn. Stat. § 216B.2427, subd. 3(c) & (d) have been met. This filing could include the Company's justification for why achieving most, but not all, of the Commission's cost-effectiveness objectives warrants a budget increase. The Commission can then exercise its discretion, informed by a more complete record, to address that request.

**G. The Commission should approve CenterPoint Energy's proposed plan for filing its annual status reports.**

To properly weigh the role of innovative resources in a decarbonized future, utilities must gather and annually report information on pilot effectiveness.<sup>78</sup> By statute, these reports must contain data on lifecycle emissions reductions and avoidances, economic impacts, costs and cost-effectiveness,

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<sup>75</sup> *Id.* at subds. 3(c) & (d)

<sup>76</sup> CenterPoint NGIA Plan at 32.

<sup>77</sup> *Id.*

<sup>78</sup> Minn. Stat. § 216B.2427, subd. 2(f).



environmental attribute verification, and emissions accounting methodologies.<sup>79</sup> Furthermore, CenterPoint must report on proposed modifications to its NGIA Plan.<sup>80</sup> The Commission may thereafter approve the continuation of pilot programs, require new or modified pilots or plans, or direct the utility to discontinue a pilot program or plan.<sup>81</sup>

CenterPoint proposes to file its annual reports in June and include information on Plan progress and achievements for the prior calendar year.<sup>82</sup>

CUB has no concerns with this approach. We look forward to reviewing these annual filings and view them as an opportunity for CenterPoint, stakeholders, and the Commission to better understand which resources work, as well as those that fall short of expectations. Annual report data will place the Commission in a “better position to explore nuances such as the best and highest uses”<sup>83</sup> of innovative resources and allow for informed decisions to be made about how to most cost-effectively reduce system emissions.

**H. The Commission should require federal funding opportunities to be maximized and direct CenterPoint to conduct additional analyses on how to reduce cost impacts on low- to moderate-income customers.**

- i. *The Commission should hold CenterPoint accountable for maximizing utilization of the IRA when it is prudent to do so.*

In Docket 22-624, the Commission ordered utilities “maximize the benefits of the Inflation Reduction Act in future resource acquisitions and requests for proposals in the planning phase, petitions for cost recovery through riders and rate cases, resource plans, gas resource plans, integrated distribution plans, and Natural Gas Innovation Act innovation plans.”<sup>84</sup> We believe it is important for the Commission to hold CenterPoint accountable for meeting this requirement.

We appreciate that CenterPoint identified several potential opportunities to utilize the IRA as part of its NGIA planning process. In some instances, the Company describes IRA benefits that may indirectly lower the costs or promote other benefits of some pilots. (For example, the Company noted “[m]any of the tax credits introduced or modified in the [IRA] reward project developers that satisfy certain labor conditions, specifically by paying prevailing wages and providing opportunities for apprentices.”)<sup>85</sup> Elsewhere, CenterPoint noted it awaits additional guidance from federal agencies to determine whether, and the extent to which IRA funding or benefits may be available.<sup>86</sup> We encourage the Company to continue evaluating whether and how to utilize the IRA, and recommend that the Commission require the Company to include updates in its annual reports documenting any lessons learned through that evaluation.

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<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> Minn. Stat. § 216B.2427, subd. 2(g).

<sup>82</sup> CenterPoint NGIA Plan at 32-33.

<sup>83</sup> Commission Frameworks Order at 16.

<sup>84</sup> *In the Matter of a Joint Investigation into the Impacts of the Federal Inflation Reduction Act*, Docket No. E,G-999/CI-22-624, Order Setting Requirements Related to Inflation Reduction Act at 12 (Sept. 12, 2023).

<sup>85</sup> CenterPoint NGIA Plan, Exhibit B at 15.

<sup>86</sup> *See, e.g.*, NGIA Plan, Exhibit D at 13, 29, 45 (noting the Company plans to evaluate forthcoming guidance that may clarify whether Pilots D, I, and N are eligible for tax incentives under the IRA).

- ii. *The Commission should direct CenterPoint to conduct additional analyses on how to reduce costs for low- and moderate-income customers and limit the Company's ability to unilaterally reduce funding for residential programs.*

The NGIA presents an opportunity for utilities to begin the process of equitably transitioning towards a decarbonized gas system. As part of this process, special attention must be paid to the costs and benefits of the Plan on lower-income customers and disadvantaged communities. While we find CenterPoint's Petition takes preliminary steps towards evaluating these impacts, we believe additional analyses should be conducted prior to approving the Company's Plan.

A utility filing an NGIA plan is required to identify the "steps [it] has taken or proposes to take to reduce the expected cost of the [NGIA] plan on low- and moderate-income residential customers" and how those customers will benefit from the innovative resources being pursued.<sup>87</sup> Although CenterPoint has designed several pilots to include low- and moderate-income households, it is unclear whether the Company seriously considered how to reduce cost impacts as required by statute.<sup>88</sup> In its Petition, the Company simply states that it will provide information to customers about how to "learn more about payment plans and bill pay assistance options."<sup>89</sup> We do not believe this action alone meets the requirement to identify methods of mitigating cost impacts on low- and moderate-income customers.

We believe that innovative solutions towards reducing cost impacts for low- and moderate-income customers still need to be evaluated and proposed within the context of the instant Plan. For example, CUB would be interested in knowing what the cost impact on non-participating customers would be if households enrolled in the Low-Income Home Energy Assistance Program ("LIHEAP") were exempted from the Innovation Act Adjustment rider. A similar process was employed in Docket No. G-008/M-21-138 to provide needed relief to those customers unable to afford Winter Storm Uri extraordinary-cost surcharges.<sup>90</sup> In that instance, the Commission found that while non-exempt ratepayers would be required to absorb some costs associated with the exemption, the "impact on each non-exempt customer [would] be minor compared to the likely harm of imposing the surcharge on the customers least able to afford it."<sup>91</sup> We respectfully request the Commission direct CenterPoint to further evaluate and describe potential pathways for lowering the amount of Plan costs assessed against income-eligible customers.

CUB also believes the Commission should take action to ensure Plan benefits are realized by residential customers. CenterPoint's NGIA Plan includes two pilots identified as targeting residential customers—Pilot N for Residential Deep Energy Retrofits and Electric Air Source Heat Pumps, and the Weatherization Blitz R&D pilot. CenterPoint has also included as one of the plan's cost-effectiveness objectives that 40 percent of residential units served by Pilot N and the Weatherization Blitzes qualify

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<sup>87</sup> Minn. Stat. § 216B.2427, subd. 2(a)(13).

<sup>88</sup> See generally CenterPoint NGIA Plan at 24.

<sup>89</sup> *Id.*

<sup>90</sup> See *In the Matter of the Petition of CenterPoint Energy for Approval of a Recovery Process for Cost Impacts Due to February Extreme Gas Market Conditions*, Docket No. G-008/M-21-138, Order Granting Variances and Authorizing Modified Cost Recovery Subject to Prudence Review, and Notice of and Order for Hearing at 16-17 (Aug. 30, 2021).

<sup>91</sup> *Id.* at 16.

as low-income<sup>92</sup> or are located in a disadvantaged community.<sup>93</sup> CUB supports this objective and encourages the Commission to review the Company's degree of success in achieving this outcome during annual filing updates. CUB also believes other pilots, such as Pilot I for New Networked Geothermal Systems, could prioritize identification of low- and moderate-income or disadvantaged communities for program participation. Currently, CenterPoint plans to conduct an initial survey to find a viable neighborhood for the installation of a new Networked Geothermal system, and has only specified that it will prioritize locations with both commercial and residential buildings.

Finally, if the Commission chooses to approve the Company's request for automatic reallocation of up to 25 percent of plan funds from underperforming pilots, CUB recommends Pilot N and the Weatherization Blitz R&D program be excluded from being cut or reduced in size. These are the only two—out of the proposed 25—pilot and R&D proposals that offer direct, targeted benefits for residential customers. CUB believes they should remain intact to comply with the NGIA's statutory requirement that a utility's plan "ensure that low- and moderate-income residential customers benefit from innovative resources included in the plan."

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<sup>92</sup> CenterPoint NGIA Plan at 30 (noting that it utilizes "low-income" as the term is defined in CIP/ECO); *see also* Minn. Stat. § 216B.2402, subd. 16 (defining "low-income household" for the purposes of ECO as receiving 80 percent or less of area median income or otherwise meeting eligibility requirements for "financial assistance from a federal, state, municipal, or utility program administered or approved by the department.")

<sup>93</sup> *Id.* (noting that the term "disadvantaged community" is used in the manner defined by the Inflation Reduction Act).

### III. Conclusion

Again, CUB appreciates the significant amount of time and effort CenterPoint has put into preparing its NGIA Plan. We hope our comments and recommendations above help further improve the proposals included therein. We look forward to reading others' comments, responding to them, and refining our recommendations in subsequent filings in this docket.

Sincerely,

January 15, 2024

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cc: Service List

**State of Minnesota  
Citizens Utility Board of Minnesota**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 9/26/2023  
Response Due: 10/10/2023

Analyst Requesting Information: Brian Edstrom/Brandon Crawford/Olivia Carroll

Type of Inquiry: Other

***If you feel your responses are trade secret or privileged, please indicate this on your response.***

Request No.	
CUB 005	<p>Where applicable, please provide your answers in a live, unlocked spreadsheet with all links and formulas intact. If the calculations or data origins are not obvious/labeled, provide a narrative explanation.</p> <p>Reference Exhibit N, worksheet “CNPO3” (regarding Pilot C) rows 11-15, which states: “CenterPoint Energy would purchase RNG - including the commodity and environmental attributes - from multiple RNG producers that have developed RNG projects using a variety of feedstocks. CNP may also support RNG project development by directly investing in the biogas upgrading equipment (required to produce pipeline-quality RNG) for a limited number of RNG projects, to reduce developers’ required capital.”</p> <p>a. Please explain what “environmental attributes” CenterPoint would purchase from RNG producers.</p> <p>b. Please explain what biogas upgrading equipment CenterPoint would need to invest in order to produce “pipeline-quality RNG.” As part of that explanation, please answer the following:</p> <p>i. Is CenterPoint certain it will need to invest in biogas upgrading equipment, or is that yet-to-be determined? If yet-to-be determined, when does CenterPoint anticipate knowing whether it will need to invest in biogas upgrading equipment?</p> <p>ii. What is the estimated or potential cost of biogas upgrading equipment that CenterPoint would need to incur in order for Pilot C to be successful?</p> <p>iii. What does CenterPoint mean by “to reduce developers’ required capital.” If CenterPoint does not invest in biogas upgrading equipment, could a developer instead invest in biogas upgrading equipment itself in order to participate in the RFP?</p>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
Department: Regulatory Services  
Telephone: 612-321-4318

- iv. What criteria must be met in order for RNG to be “pipeline-quality RNG?”
- v. Who (e.g., the RNG producer, the offtaker, the pipeline owner or operator, a regulator, etc.) determines whether RNG is pipeline-quality RNG?
- vi. In the RFP process described in Pilot C, will CenterPoint accept bids from RNG producers that offer to sell CenterPoint RNG that is *not* pipeline-quality RNG? If so, please provide an explanation as to why CenterPoint would purchase RNG that is not pipeline-quality RNG.

**Response:**

- a. Since reducing greenhouse gas emissions is the focus of NGIA and the Innovation Plan, CenterPoint Energy is interested in purchasing the GHG reduction environmental attributes in the form of tons of carbon dioxide equivalent (tCO<sub>2</sub>e). To ensure that others cannot also claim the emissions reductions associated with purchased RNG, CenterPoint Energy will require that all RNG purchased under NGIA be registered and tracked in M-RETS. The environmental attributes are a component of the Renewable Thermal Certificate issued by M-RETS for each Dth of RNG, which would be retired on behalf of CenterPoint Energy customers.

M-RETS ([mrets.org](http://mrets.org)) defines environmental attributes as follows:

Environmental Attribute(s): Any and all environmental claims, credits, benefits, emissions reductions, offsets, and allowances attributable to the production of renewable thermal energy (e.g., RNG) and if applicable its avoided emission of pollutants. The environmental attributes of renewable natural gas include but are not limited to the avoided greenhouse gas emissions associated with the production, transport, and combustion of a quantity of renewable natural gas compared with the same quantity of geologic natural gas. Environmental attributes do not include: (a) The renewable natural gas itself or the energy content of that gas; (b) Any tax credits associated with the construction or operation of the renewable natural gas production facility or other financial incentives in the form of credits, deductions, or M-RETS Renewable Thermal Operating Procedures 40 allowances associated with the production of renewable natural gas that applies to a state, provincial, or federal income tax obligation; (c) Fuel- or feedstock-related subsidies or “tipping fees” that may be paid to the seller to accept certain fuels, or local subsidies received by the renewable natural gas

production facility for the destruction of particular preexisting pollutants or the promotion of local environmental benefits; or (d) Emission reduction credits encumbered or used by the renewable natural gas production facility for compliance with local, state, provincial, or federal operating and/or air quality permits.

- b. i-iii. A biogas upgrading system is required to produce pipeline quality RNG. A developer could invest in biogas upgrading equipment itself. CenterPoint Energy could reduce the developer's overall capital costs by owning (and financing) the biogas upgrading equipment, in exchange for a lower purchase price of RNG. It is yet to be determined whether CenterPoint Energy would invest in biogas upgrading equipment and what the associated costs would be. Costs for these systems are very site-specific and CenterPoint Energy expects that costs of biogas upgrading equipment would vary significantly between projects.

Please see Attachment 2, a report from the Michigan Renewable Natural Gas Study by ICF that provides high-level cost estimates for biogas upgrading for projects using different feedstocks.

The Company anticipates knowing whether it would invest in biogas upgrading equipment after completing the RFP process.

iv-vi. Through Pilot C, CenterPoint Energy would only purchase RNG that has been injected into a gas pipeline, which must meet the relevant quality standards for that pipeline. The pipeline owner or operator determines the gas quality standards required for injection of RNG into their pipeline systems. If the project is interconnected into CenterPoint Energy's system, it must meet the gas quality standards outlined in Attachment 1: RNG Quality Standards.

**State of Minnesota  
Citizens Utility Board of Minnesota**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 9/26/2023  
Response Due: 10/10/2023

Analyst Requesting Information: Brian Edstrom/Brandon Crawford/Olivia Carroll

Type of Inquiry: Other

***If you feel your responses are trade secret or privileged, please indicate this on your response.***

Request No.	
CUB 006	<p>Where applicable, please provide your answers in a live, unlocked spreadsheet with all links and formulas intact. If the calculations or data origins are not obvious/labeled, provide a narrative explanation.</p> <p>Reference <i>In the Matter of the Petition of CenterPoint Energy for Approval of a Recovery Process for Cost Impacts Due to February Extreme Gas Market Conditions</i>, Gas Utilities Joint Initial Comments in Response to August 23, 2022 Notice, Docket No. G-008/M-21-138 (Sept. 15, 2022) pg. 9: “With respect to setting benchmarks for natural gas commodity costs, one significant challenge with gas purchasing incentive mechanisms is the fact that the majority of natural gas commodity purchases are either through a) short- to medium-term contracts predominantly tied to some external market index, or b) from spot gas purchases where the price is set in the daily market.”</p> <p>a. Define “short-term contract” as that term is used above. Specifically, what term length (or range of term lengths) does CenterPoint consider “short-term.”)</p> <p>b. Define “medium-term contract” as that term is used above. Specifically, what term length (or range of term lengths) does CenterPoint consider “medium-term.”</p> <p>c. Applying the definitions provided in response to a and b, above: approximately what percentage of CenterPoint’s natural gas commodity purchases occurred through short-term or medium-term contracts in the most recently completed gas year?</p> <p>d. Does CenterPoint anticipate that contracts for the purchase of RNG (as</p>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
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described in Pilots A-C) will have a fixed price or a variable price? If a variable price, please describe how that variable price will be set.

**Response:**

- a. With respect to CenterPoint's definition of short-term contract, this would be any natural gas commodity purchase with a term of one year or less. Examples of this from CenterPoint's perspective would be daily, monthly or seasonal natural gas commodity purchases. The majority of the Company's supply needs are obtained through these types of transactions.
- b. CenterPoint Energy categorizes its natural gas commodity purchases as either short-term (one year or less) or long-term (more than one year).
- c. For gas year July 2022-June 2023, approximately 99% of CenterPoint Energy's natural gas commodity purchases were secured through short-term supply contracts. The only transaction considered as a long-term supply contract would be a 24-month hedge that began April 2023 for 10,000 Dth/d. Going forward the Company will continue to evaluate these opportunities along with transacting when it makes prudent business sense to do so.
- d. We anticipate that contracts for the purchase of RNG (as described in Pilots A-C) will have a fixed price per MMBtu, assuming Carbon Intensity stays within an acceptable range. Production could vary annually and the Company recognizes that the provision of RNG via an emerging market does not mirror the purchasing process for geologic natural gas.

**State of Minnesota**  
**Minnesota Department of Commerce**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 9/26/2023  
Response Due: 10/10/2023

Analyst Requesting Information: Brian Edstrom/Brandon Crawford/Olivia Carroll

Type of Inquiry: Other

***If you feel your responses are trade secret or privileged, please indicate this on your response.***

Request No.	
CUB 009 P	<p>Where applicable, please provide your answers in a live, unlocked spreadsheet with all links and formulas intact. If the calculations or data origins are not obvious/labeled, provide a narrative explanation.</p> <p>Reference CenterPoint response to information request DOC 031.c and CenterPoint’s public response to information request DOC 025.f&amp;g. CenterPoint indicates it “expects robust interest in the RFP because many developers have reached out regarding the potential sale of RNG to the Company as a general matter but not in specific relations to NGIA.” CenterPoint then refers to its response to DOC 025.f, noting CenterPoint “does not have a particular number of developer responses in mind.” In its response to DOC 025.f, CenterPoint notes “active and potential producers and developers have reached out to CenterPoint Energy for information about RNG receipt programs, and many of these developers have expressed interest in selling us RNG.”</p> <ol style="list-style-type: none"><li>a. Please explain what CenterPoint means by an “active” producer or developer vs. a “potential” producer or developer.</li><li>b. How many “active” producers or developers have reached out to CenterPoint for information about RNG receipt programs, and/or to express interest in selling RNG to CenterPoint? (If CenterPoint does not have a precise number, provide an estimate.)</li><li>c. How many “potential” producers or developers have reached out to CenterPoint for information about RNG receipt programs, and/or to express interest in selling RNG to CenterPoint? (If CenterPoint does not have a precise number, provide an estimate.)</li></ol>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
Department: Regulatory Services  
Telephone: 612-324-4318

**Response:**

CenterPoint Energy Minnesota Gas has designated information in this document as trade secret. The information meets the definition of trade secret in Minn. Stat. § 13.37, subd. 1(b), as follows: (1) the information was supplied by CenterPoint Energy Minnesota Gas, the affected organization; (2) CenterPoint Energy Minnesota Gas has taken all reasonable efforts to maintain the secrecy of the information; and (3) the protected information contains operating information which derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

- a. “Active” was intended to mean producers or developers that have existing RNG projects that are already actively producing RNG, while “potential” was intended to mean producers or developers that have planned future projects in various stages in development that are expected to produce RNG within the timeframe of the innovation plan. Many producers and developers have both active and potential projects.
- b. and c. A better way to phrase our previous response quoted above would have been “producers or developers with active or potential RNG projects,” as some producers have both projects actively producing RNG and potential projects in various stages of development. The distinction between “active” and “potential” should have been drawn at the project level. The RNG producers developers that CenterPoint has engaged with in conversations related to selling CenterPoint RNG includes:

**[TRADE SECRET DATA BEGINS...**

**...TRADE SECRET DATA ENDS]**

**State of Minnesota  
Citizens Utility Board of Minnesota**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 11/14/2023  
Response Due: 11/30/2023

Analyst Requesting Information: Brian Edstrom/Brandon Crawford/Olivia Carroll

Type of Inquiry: Other

*If you feel your responses are trade secret or privileged, please indicate this on your response.*

Request No.	
CUB 018 P	<p>Where applicable, please provide your answers in a live, unlocked spreadsheet with all links and formulas intact. If the calculations or data origins are not obvious/labeled, provide a narrative explanation. Please send responses to the following email addresses: <a href="mailto:briane@cupminnesota.org">briane@cupminnesota.org</a>; <a href="mailto:brandonc@cupminnesota.org">brandonc@cupminnesota.org</a>; <a href="mailto:oliviac@cupminnesota.org">oliviac@cupminnesota.org</a>.</p> <p>Reference CenterPoint NP response to CUB Information Request 009.</p> <ul style="list-style-type: none"><li>a. Of the RNG producers and developers that CenterPoint lists in its response, how many have existing, active RNG projects that are currently producing RNG?</li><li>b. Please also identify which of the identified producers and developers, if any, have currently active RNG projects located in Minnesota.</li></ul> <p><b>Response:</b></p> <p><b>Contains Trade Secret Information:</b> CenterPoint Energy Minnesota Gas has designated information in this document as trade secret. The information meets the definition of trade secret in Minn. Stat. § 13.37, subd. 1(b), as follows: (1) the information was supplied by CenterPoint Energy Minnesota Gas, the affected organization; (2) CenterPoint Energy Minnesota Gas has taken all reasonable efforts to maintain the secrecy of the information; and (3) the protected information contains operating information which derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.</p>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
Department: Regulatory Services  
Telephone: 612-321-4318

- a. Three of the developers included in response CUB 009, **[TRADE SECRET DATA BEGINS...  
...TRADE SECRET DATA ENDS]** have existing, active RNG projects that are currently producing RNG.
- b. One developer, **[TRADE SECRET DATA BEGINS...  
...TRADE SECRET DATA ENDS]**, has currently active RNG projects located in Minnesota.

Response By: Betsy Lang  
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**State of Minnesota  
Citizens Utility Board of Minnesota**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 11/14/2023  
Response Due: 11/30/2023

Analyst Requesting Information: Brian Edstrom/Brandon Crawford/Olivia Carroll

Type of Inquiry: Other

***If you feel your responses are trade secret or privileged, please indicate this on your response.***

Request No.	
CUB 021	<p>Where applicable, please provide your answers in a live, unlocked spreadsheet with all links and formulas intact. If the calculations or data origins are not obvious/labeled, provide a narrative explanation. Please send responses to the following email addresses:</p> <ul style="list-style-type: none"><li>1 briane@cubminnesota.org;</li><li>1 brandonc@cubminnesota.org;</li><li>1 oliviac@cubminnesota.org.</li></ul> <p>Reference CenterPoint response to CEO Information Request 025. CenterPoint estimates that Pilot D’s new hydrogen facility in Mankato will produce a maximum of 21,160 Dth annually, and states that the existing hydrogen facility in Minneapolis currently produces a maximum of 10,885 Dth annually. Please explain why the Company projects the new facility to produce nearly double the maximum amount of hydrogen currently produced at its existing facility of the same size.</p> <p><b>Response:</b></p> <p>The Minneapolis facility’s production has increased over time as we learn about the system and maintain the equipment. The operating electrolyzer has not yet reached the maximum potential, but we expect the monthly production values to continue to increase until reaching a similar capacity (21,160 Dth) as the Pilot installation, which shares the size specifications with the Minneapolis site.</p> <p>As noted in CenterPoint’s response to Department of Commerce Information Request 013, there are a number of possible reasons a bespoke production and blending system may be offline or operating</p>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
Department: Regulatory Services  
Telephone: 612-321-4318

at partial capacity, including routine maintenance, power failures, communication failures, equipment or component malfunctions, software changes, design changes, personnel availability, repairs, testing, etc. We expect to translate the challenges with our first installation to insights that will optimize the new installation. Once fully operational and fully commissioned, we assume a 95% capacity factor for the electrolyzer.

Response By: Betsy Lang  
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Department: Regulatory Services  
Telephone: 612-321-4318

**State of Minnesota  
Citizens Utility Board of Minnesota**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 11/14/2023  
Response Due: 11/30/2023

Analyst Requesting Information: Brian Edstrom/Brandon Crawford/Olivia Carroll

Type of Inquiry: Other

*If you feel your responses are trade secret or privileged, please indicate this on your response.*

Request No.	
CUB 023	<p>Where applicable, please provide your answers in a live, unlocked spreadsheet with all links and formulas intact. If the calculations or data origins are not obvious/labeled, provide a narrative explanation. Please send responses to the following email addresses: <a href="mailto:briane@cupminnesota.org">briane@cupminnesota.org</a>; <a href="mailto:brandonc@cupminnesota.org">brandonc@cupminnesota.org</a>; <a href="mailto:oliviac@cupminnesota.org">oliviac@cupminnesota.org</a>.</p> <p>Reference CenterPoint October 10, 2023, UPDATE response. CenterPoint identified an error in its initial commodity cost forecasts that impacts its RNG Pilot costs. The corrected calculation of commodity cost forecasts resulted in the Company's exceeding the portfolio cost cap by approximately \$550,000. Please outline how the Company plans to address this overage to remain consistent with the NGIA statutory cost cap requirement.</p> <p><b>Response:</b></p> <p>CenterPoint Energy plans to submit a revised portfolio allocation in the reply comments to account for this overage, as well as other adjustments that may be required in response to stakeholder feedback and updated project-specific concerns.</p>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
Department: Regulatory Services  
Telephone: 612-321-4318



**State of Minnesota**  
**Minnesota Center for Environmental Advocacy**  
**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 10/19/2023  
Response Due: 11/2/2023

Analyst Requesting Information: Leigh Currie

Type of Inquiry: Other

*If you feel your responses are trade secret or privileged, please indicate this on your response.*

Request No.	
CEO 025	<p data-bbox="384 741 943 779">Please reference Exhibit D, pages 10 – 15.</p> <ol style="list-style-type: none"><li data-bbox="384 801 1399 913">a. Please specify how the proposed hydrogen pilot is different than the green hydrogen pilot that CenterPoint Energy already owns in downtown Minneapolis that went into operation in 2022.</li><li data-bbox="384 920 1399 1032">b. Please specify which metrics the Company is seeking to track in this pilot that are not or cannot be tracked in the existing green Hydrogen pilot referenced in 25 (a).</li><li data-bbox="384 1039 1399 1263">c. What percent of hydrogen blending is the company currently experiencing on its distribution system from the existing Hydrogen pilot referenced in 25 (a)?<ol style="list-style-type: none"><li data-bbox="448 1151 1399 1218">i. Please provide the information in an unlocked Excel spreadsheet with all formulas and calculations intact.</li><li data-bbox="448 1225 1399 1263">ii. Please specify if the percentage blend is by energy or by volume.</li></ol></li><li data-bbox="384 1270 1399 1337">d. What is the maximum annual hydrogen production expected from Pilot D?</li><li data-bbox="384 1344 1399 1411">e. What is the maximum annual hydrogen production experienced from the existing hydrogen pilot referenced in 25 (a)?</li></ol> <p data-bbox="384 1485 528 1518"><b>Response:</b></p> <ol style="list-style-type: none"><li data-bbox="384 1547 1399 1727">a. The hydrogen pilot facility has not been designed yet, but at a high level the main difference is the addition of on-site solar power supply and a potential hydrogen storage system. We also expect there will be differences in several of the electrolyzer support systems and potentially the electrolyzer supplier as well.</li></ol> <p data-bbox="432 1778 1399 1848">The main goal is to learn about the interface between on-site solar, hydrogen storage and hydrogen production operations. Additionally, we</p>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
Department: Regulatory Services  
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plan to test alternate support processes that may be less expensive to construct and operate. Using dedicated renewable generation is expected to be key to reducing the cost of hydrogen production so this is a learning opportunity for CenterPoint Energy.

- b. Metrics CenterPoint Energy seeks to track are included in Exhibit D: Pilot Descriptions for Green Hydrogen Blending, page 14. The metrics that relate to the dedicated solar array and potential storage system, which are not part of the Minneapolis installation and cannot be tracked in the existing Green Hydrogen pilot, include:
  - 1 Hourly electricity generation profile of dedicated solar array
  - 1 Hourly electricity consumption data for the electrolyzer
  - 1 Monthly capacity utilization factor, split by solar power input vs. grid electricity
  - 1 Operational cost of hydrogen storage system
  - 1 Operational performance of the combined electrolyzer and solar facilities
- c. The hydrogen percent has varied between 0.5% and 5% by volume at the point of injection, depending on the hydrogen flow and natural gas flow at the time.
- d. 21,160 Dth is the maximum expected annual energy production for the facility.
- e. Based on our most current production value from September 2023, our annualized production is 10,885 Dth (907.1 Dth x 12 months).

**State of Minnesota**  
**Minnesota Department of Commerce**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 8/31/2023  
Response Due: 9/11/2023

Analyst Requesting Information: Adway De/Andy Bahn/John Kundert/Sachin Shah

Type of Inquiry: Other

*If you feel your responses are trade secret or privileged, please indicate this on your response.*

Request No.	
DOC 037	<p>Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.</p> <p>Reference(s): In the Matter of the Application of CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas, (CPE, CenterPoint Energy, or Company), Natural Gas Innovation Act (NGIA) Filing</p> <p>The following questions pertain to the Carbon Capture Rebates Pilot for Commercial Buildings. CPE stated: "CenterPoint Energy has installed four CarbinX units through CIP but savings information is not yet available to report."</p> <ol style="list-style-type: none"><li>When will energy savings for CarbinX be available to report?</li><li>What are the energy savings for CarbinX as reported by the manufacturer?</li><li>What are the proposed MN Test benefit cost ratio for the Carbin X units? Please provide spreadsheets with detailed calculations and formulas intact.</li><li>What is the Company's justification as to why the Carbin X units are not eligible within CPE's 2024-2026 ECO Triennial Plan?</li></ol> <p><b>Response:</b></p> <ol style="list-style-type: none"><li>Measurement and Verification is in progress for the CIP pilot. Preliminary data will be available Q2 of 2024 and draft reporting Q1 of 2025.</li></ol>

Response By: Betsy Lang  
Title: Lead Analyst, Regulatory & Legislative  
Department: Regulatory Services  
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- b. The manufacturer reports gas heat recovery of the CarbinX unit to be 0.010245 MMBTU/hr. In the NGIA filing, using expectations for the average installation and operation, gas-related energy savings was estimated to be 89.3 Dth per participant.

The manufacturer reports increased electricity consumption of 1489 kWh/yr for continuously operating units. In the NGIA filing, using expectations for the average installation and operation, electricity-related energy increase was estimated to be 993 kWh per participant.

- c. See DOC37\_Attachment 1 for the cost benefit ratio using the Minnesota CIP Gas Utilities' Cost-Effectiveness Model.
- d. CarbinX units are new to the U.S. market and require detailed analysis to determine the efficacy of the claimed energy savings and the level of carbon captured while operating at customer sites, rather than in a lab setting. CIP R&D was the avenue available to test the equipment and customer experience at the time the pilot was proposed, since NGIA had not been available as an option. Upon completion of the R&D pilot, if the energy savings of the CarbinX units prove to be cost-effective through CIP/ECO, it is our intention to include the CarbinX as a measure in the CIP/ECO Plan. In the future, we envision a combination of incentives, including a CIP/ECO incentive for energy savings and an NGIA incentive for the carbon capture component of the CarbinX.

CarbinX units are appropriately included in NGIA because a substantial portion of the GHG savings from the units is associated with carbon capture rather than energy efficiency. Please refer to Exhibit I of the Innovation Plan filing for information on CIP NGIA Coordination.

**State of Minnesota  
 CenterPoint Energy**

**Utility Information Request**

Docket Number: Dkt. G-008/M-23-215 - NGIA  
 Requested From: CenterPoint Energy Minnesota Gas

Date of Request: 10/10/2023  
 Response Due: 10/10/2023

Analyst Requesting Information: Betsy Lang

Type of Inquiry: Other

*If you feel your responses are trade secret or privileged, please indicate this on your response.*

Request No.																													
UPDATE	<p>This is not an information request. Please see below for an informational update.</p> <p><b>Response:</b></p> <p>TO: All Parties Receiving CenterPoint Energy's Responses to Information Requests in Docket No. G-008/M-23-215</p> <p>RE: Correction to Commodity Cost Forecasts Impacting RNG Pilot Cost Estimates</p> <p>In preparing our replies to information requests in Docket No. G-008/M-23-215, we noted that a correction was required for some of our Innovation Plan modeling for pilot projects A, B and C. Specifically, we identified a mismatch between the plan start year (2024) and our commodity cost values (which start in 2023) for RNG projects. The charts below show the commodity costs we calculated (in compliance with the method in the Frameworks Order) and the commodity cost savings assumed each year for the RNG projects.</p> <p>Commodity cost forecast:</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 10%;">Year</th> <th>2023</th> <th>2024</th> <th>2025</th> <th>2026</th> <th>2027</th> <th>2028</th> <th>2029</th> <th>2030</th> <th>2031</th> <th>2032</th> <th>2033</th> <th>2034</th> <th>2035</th> </tr> </thead> <tbody> <tr> <td>Geologic gas commodity cost (\$/Dth)</td> <td>5.41</td> <td>5.13</td> <td>4.86</td> <td>4.60</td> <td>4.36</td> <td>4.13</td> <td>3.91</td> <td>3.71</td> <td>3.51</td> <td>3.33</td> <td>3.15</td> <td>2.99</td> <td>2.83</td> </tr> </tbody> </table> <p>For RNG projects, the avoided costs were calculated in the measure profiles</p>	Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Geologic gas commodity cost (\$/Dth)	5.41	5.13	4.86	4.60	4.36	4.13	3.91	3.71	3.51	3.33	3.15	2.99	2.83
Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035																
Geologic gas commodity cost (\$/Dth)	5.41	5.13	4.86	4.60	4.36	4.13	3.91	3.71	3.51	3.33	3.15	2.99	2.83																

Response By: Betsy Lang  
 Title: Lead Analyst, Regulatory & Legislative  
 Department: Regulatory Services  
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as follows, with \$5.41 instead used as the value for Year 1 (2024):

Year	2024	2025	2026	2027	2028
Geologic gas commodity cost (\$/Dth)	5.41	5.13	4.86	4.60	4.36

The corrected figures are noted below:

Year	2024	2025	2026	2027	2028
Geologic gas commodity cost (\$/Dth)	5.13	4.86	4.60	4.36	4.13

For CenterPoint Energy's information requests due October 9, 2023, and going forward, the corrected commodity cost forecast values are included. This includes replies to CUB 008 and CEO 010. We will make appropriate adjustments to the cost calculations for Pilots A, B and C and address these changes in our reply comments, as pilot budgets will require adjustment in order to comply with the cost cap. Preliminarily, we calculate that correcting the commodity cost savings for the RNG project results in the proposed portfolio exceeding the cost cap by approximately \$550,000.

We appreciate your understanding and are happy to answer any questions you may have.