

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Hwikwon Ham	Commissioner
Valerie Means	Commissioner
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In the Matter of CenterPoint Energy’s Natural
Gas Innovation Plan

ISSUE DATE: October 9, 2024

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

ORDER APPROVING NATURAL GAS
INNOVATION PLAN WITH
MODIFICATIONS

PROCEDURAL HISTORY

On June 28, 2023, CenterPoint Energy Corp. d/b/a CenterPoint Energy Minnesota Gas (CenterPoint) filed a petition for approval of its first Natural Gas Innovation Plan.

By January 17, 2024, the Commission received initial comments from:

- Office of the Attorney General—Residential Utilities Division (OAG)
- Center for Energy and Environment (CEE)
- Coalition for Renewable Natural Gas (RNG Coalition)
- Clean Energy Organizations (CEOs)¹
- Geothermal Exchange Organization
- International Union of Operating Engineers Local 49 (Local 49)
- Citizens Utility Board of Minnesota (CUB)
- Department of Commerce (Department)
- City of Minneapolis

By March 15, 2024, the Commission received reply comments from:

- CEE
- Laborers’ International Union of North America—Minnesota and North Dakota (LIUNA)
- RNG Coalition
- CenterPoint
- CEOs

¹ The CEOs consist of Minnesota Center for Environmental Advocacy, Fresh Energy, and Sierra Club.

By May 15, 2024, the Commission received supplemental comments from:

- LIUNA
- City of Minneapolis
- Department
- CUB
- CEOs
- OAG
- CenterPoint
- Local 49

By May 16, 2024, numerous members of the public filed comments.

On July 22, 2024, the Department filed additional comments.

On July 25, 2024, CenterPoint, CEE, LIUNA, and Local 49 jointly filed proposed decision options.

On July 23 and 25, 2024, this matter came before the Commission.

FINDINGS AND CONCLUSIONS

I. Background

On June 26, 2021, Governor Walz signed the Natural Gas Innovation Act (NGIA) into law.² The NGIA allows natural gas utilities to file innovation plans with the Commission that detail the innovative resources they plan to implement to contribute to meeting Minnesota’s greenhouse gas (GHG) and renewable energy goals. The term “innovative resource” is defined as “biogas, renewable natural gas, power-to-hydrogen, power-to-ammonia, carbon capture, strategic electrification, district energy, and energy efficiency.”³

As part of their innovation plans, utilities are allowed to propose pilot programs and research and development (R&D) investments that implement innovative resources. The NGIA imposes numerous requirements on what a utility must include in a plan. Some requirements dictate what information must be included in a plan while others affect how the plan is crafted, such as by setting a cap on cost recovery or by requiring utilities to allocate a percentage of a plan’s budget to certain innovative resources. Of particular importance is the requirement that fifty percent or more of a plan’s costs are for the procurement and distribution of RNG, biogas, hydrogen produced via power-to-hydrogen, and ammonia produced via power-to-ammonia (the fifty-percent cost requirement).⁴

² The NGIA is codified in statute as Minn. Stat. §§ 216B.2427 and 216B.2428.

³ Minn. Stat. § 216B.2427, subd. 1(h).

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

After the NGIA was enacted, the Commission issued an order establishing two frameworks: (1) a general framework to compare the lifecycle GHG emissions intensities of each innovative resource, and (2) a cost-benefit analytic framework to compare the cost-effectiveness of innovative resources and plans.⁵ The Commission issued its frameworks order pursuant to Minn. Stat. § 2428.

II. CenterPoint’s Natural Gas Innovation Plan

A. Overview of the Plan

CenterPoint is the first natural gas utility to file an innovation plan since the NGIA was enacted. The plan includes seventeen pilots that will utilize six, and possibly seven, of the innovative resources listed in the NGIA and seven R&D pilots, some of which explore the eighth innovative resource, power-to-ammonia.⁶ CenterPoint estimated that the pilots will reduce or avoid nearly 1.2 million metric tons of carbon dioxide equivalent emissions—comparable to the energy use of approximately 150,000 homes for one year—and create 3,000 full-time equivalent jobs in Minnesota. The proposed five-year cost of the plan is \$105,701,515.

In addition to the pilot and R&D proposals, the plan includes a request for budget flexibility, a cost-recovery proposal, proposed cost-effectiveness objectives, and a proposal on what information CenterPoint should include in its annual status reports.

1. Comments

While some commenters encouraged the Commission to approve CenterPoint’s plan outright, others recommended modifying portions of the plan by, for example, rejecting or altering certain pilot proposals or adjusting the plan’s budget. No commenter recommended rejecting the plan in its entirety. After the first day of oral argument on the plan, CenterPoint, CEE, LIUNA, and Local 49 filed a list of proposed decision options that they jointly supported.

2. Commission Action

After consideration of the record and the proceedings in this matter, the Commission is persuaded that CenterPoint’s innovation plan should be approved—including all the proposed pilots and R&D projects—as modified in this order. Decarbonizing the natural gas sector requires a different approach than decarbonizing the electricity sector, and CenterPoint has crafted a plan that uses innovative resources to reduce GHG emissions and natural gas throughput. The plan marks an important first step in an iterative process in which CenterPoint and stakeholders learn the most effective way to implement these resources. CenterPoint’s plan

⁵ Order Establishing Frameworks for Implementing Minnesota’s Natural Gas Innovation Act, Docket No. G-999/CI-21-566 (June 1, 2022).

⁶ CenterPoint’s plan originally included eighteen pilots, but one of the pilots—Pilot A—is no longer feasible. Under Pilot A, CenterPoint intended to purchase renewable natural gas from an anaerobic digestion facility that Hennepin County was developing. Hennepin County informed CenterPoint that it was no longer pursuing the facility.

is consistent with the NGIA and relevant Commission orders, and the Commission finds that the plan meets the criteria under Minn. Stat. § 216B.2427, subd. 2(b).⁷

When reviewing CenterPoint’s innovation plan, the Commission was particularly mindful of the following considerations.

First, the NGIA encourages utilities to learn. Utilities with innovation plans must implement innovative resources, some of which they may not have much, or any, experience using. As utilities learn what works and what doesn’t, they will become better positioned to develop programs that more effectively contribute to meeting Minnesota’s GHG and renewable energy goals.

Second, approval of CenterPoint’s innovation plan does not set the plan in stone. The NGIA requires a utility to file annual reports on various aspects of an approved plan, such as costs incurred, reductions or avoidance of GHG emissions, and the economic impact of the plan, among others.⁸ When evaluating such reports, the Commission has the authority to make modifications or even to disapprove the continuation of a pilot program or plan.⁹ The Commission’s review will provide an important check on CenterPoint’s innovation plan and help ensure that only useful projects continue.

Third, to recover costs under its plan, CenterPoint must demonstrate to the satisfaction of the Commission that the costs it incurs are reasonable.¹⁰ This requirement helps protect ratepayers and incentivizes CenterPoint to be prudent when incurring costs.

With these considerations in mind, the Commission is confident that CenterPoint’s plan will help Minnesota move closer to achieving its GHG and renewable energy goals. The Commission appreciates CenterPoint’s efforts in developing the first innovation plan under the NGIA as well as stakeholders’ involvement. Stakeholders’ comments have been extremely valuable as the Commission considers this novel proposal.

Below, the Commission will address the following: (1) pilot modifications, (2) R&D project modifications, (3) CenterPoint’s request for budget flexibility, (4) cost recovery, (5) cost-effectiveness objectives, (6) annual status reports, (7) other plan modifications, and (8) requirements for future NGIA plans.

B. Pilot Modifications

As discussed above, the Commission is approving CenterPoint’s plan, including all the proposed pilots, as modified in this order. Commenters made numerous recommendations on

⁷ To approve an innovation plan, the NGIA requires the Commission to find that the criteria under Minn. Stat. § 216B.2427, subd. 2(b) are met.

⁸ Minn. Stat. § 216B.2427, subd. 2(f).

⁹ Minn. Stat. § 216B.2427, subd. 2(g).

¹⁰ Minn. Stat. § 216B.2427, subd. 2(c).

CenterPoint's seventeen pilot proposals. This section includes a brief description of each pilot, a discussion of relevant comments, and any pilot modifications.

1. Pilot B – Renewable Natural Gas (RNG) Produced from Ramsey and Washington Counties' Organic Waste

Under Pilot B, CenterPoint proposed purchasing RNG from Dem-Con HZI Bioenergy LLC's anaerobic digestion facility, which is currently under development. This new anaerobic digester facility will process source-separated food waste from Twin Cities metro area counties, including Washington and Ramsey Counties' organics recycling programs and a smaller quantity of yard waste.

a. Comments

Several commenters addressed Pilot B and supported its approval with modifications. The City of Minneapolis highlighted the potential benefits of the pilot, including a marketable biochar product to sequester carbon, reducing methane emissions from landfills, and creating a new local fuel source that supports local economic development. But the City of Minneapolis conditioned its support of the pilot on acceptable air quality impacts for local residents, and it encouraged CenterPoint to find a local offtaker for the RNG, a recommendation the CEOs echoed.

The Department recommended including Pilot B in the competitive bidding process and draft request for proposals in Pilot C to ensure a fair price for the project. By the time this matter came before the Commission, however, CenterPoint had already released its request for proposals. In light of the changed circumstances, the Department made a modified recommendation to require CenterPoint to request a bid from Dem-Con HZI Bioenergy LLC prior to plan approval.

In response to the City of Minneapolis's concerns about air quality, CenterPoint stated that, according to the developer, the facility would meet stringent federal and state air quality standards. The developer also informed CenterPoint that using a local offtaker for the project was not feasible or desirable. In response to the Department, CenterPoint explained that it would use available market benchmarks and information gained from the request for proposals in Pilot C to determine the reasonableness of pricing for Pilot B.

b. Commission Action

The Commission agrees with commenters that Pilot B should be approved. As the City of Minneapolis observed, the pilot has several potential benefits, and because it involves purchasing RNG, it contributes to the plan meeting the fifty-percent cost requirement.

In the interest of keeping the costs of Pilot B as low as possible, the Commission will require CenterPoint to obtain from Dem-Con HZI Bioenergy, LLC the information that was required for the bidders for Pilot C.

2. Pilot C – RNG Request for Proposal Purchase

Under Pilot C, CenterPoint proposed issuing a request for proposals to purchase an additional amount of RNG to complete its RNG portfolio and help satisfy the fifty-percent cost requirement. CenterPoint would potentially procure RNG from four different feedstocks: food

waste, dairy, wastewater treatment, and landfill. As proposed, Pilot C has the largest budget in CenterPoint's innovation plan.

a. Comments

Commenters widely acknowledged that the Commission would need to approve some version of Pilot C to meet the NGIA's fifty-percent cost requirement, but commenters did not agree on all aspects of the pilot and raised issues concerning four main topics: (1) Pilot C's budget, (2) bundled RNG purchases, (3) geographic limitations on RNG purchases, and (4) the appropriate feedstocks for RNG purchases.

i. Pilot C's Budget

The CEOs, CUB, the Department, the OAG, and the City of Minneapolis all recommended reducing the budget for Pilot C. These commenters were concerned about the substantial size of Pilot C's budget and ensuring that CenterPoint makes economical RNG purchases. As an additional measure to contain Pilot C's costs, the OAG and the Department recommended imposing a pilot-specific budget cap.

In response, CenterPoint asserted that the budget for Pilot C was appropriate and consistent with the legislature's intent as reflected by the NGIA's cost cap on innovation plans and the permissible level of spending on RNG relative to that cap. CenterPoint did not support a budget cap specifically for Pilot C.

ii. Bundled RNG Purchases

RNG can be separated into two component parts: commodity gas and environmental attributes. RNG producers can sell those parts together (i.e., bundled) or they can sell them separately (i.e., unbundled). If natural gas utilities purchase only the environmental attributes of RNG—referred to in this context as Renewable Thermal Certificates—without the associated commodity gas, they can apply the environmental attributes to their conventional natural gas supply and claim an environmental benefit.

Under Pilot C, CenterPoint proposed giving a preference to purchasing bundled RNG but stated that it would also consider purchasing some amount of the environmental attributes of RNG without the associated commodity gas. CenterPoint asserted that the NGIA does not allow utilities to purchase unbundled commodity gas because it requires that environmental benefits produced under an innovation plan not be claimed for any other program.¹¹

In contrast, the OAG and CUB argued that the NGIA only allows CenterPoint to purchase bundled RNG and recommended prohibiting CenterPoint from buying only the environmental attributes of RNG. CenterPoint asserted in response that the NGIA supports purchasing environmental attributes of RNG without the associated commodity gas because such purchases would be tied to gas coming onto the system in Minnesota or in a neighboring state and could support increased production of RNG. For example, if a potential RNG producer has a buyer for its commodity gas but not for the associated environmental attributes, CenterPoint's purchase of

¹¹ Minn. Stat. § 216B.2427, subd. 2(a)(10)(i).

those attributes could provide an avenue for facilitating RNG production and further the goals of the NGIA.

iii. Geographic Limitations on RNG Purchases

The CEOs and the City of Minneapolis recommended requiring CenterPoint to buy RNG only from Minnesota sources, and CUB recommended CenterPoint prioritize Minnesota-made RNG over RNG produced elsewhere. CenterPoint agreed that it should prioritize buying RNG from Minnesota sources to promote in-state economic development and ultimately supported a related modification to Pilot C. But CenterPoint disagreed that it should limit its RNG purchases to Minnesota sources because there are other relevant factors, such as GHG reductions and cost, that affect purchasing decisions.

iv. Feedstocks for RNG purchases

The CEOs recommended eliminating investments in dairy manure feedstocks because, the CEOs argued, there are environmental concerns associated with that type of feedstock. CenterPoint opposed eliminating dairy-manure feedstocks from Pilot C and noted that each type of feedstock provides a different learning opportunity.

b. Commission Action

The Commission is persuaded that Pilot C should be approved because it presents learning opportunities related to RNG procurement and distribution, offers significant reductions in GHG emissions, and supports local RNG producers. The importance of RNG and other alternative fuels to the legislature is evident in the NGIA's requirement that fifty percent *or more* of a utility's costs under an innovation plan are for these fuels.¹² The legislature also understood how much might be spent on RNG and other alternative fuels relative to the overall cost cap it established for the NGIA. Accordingly, the Commission is persuaded that Pilot C's budget is reasonable to explore the benefits of using RNG to reduce GHG emissions and natural gas throughput. With the NGIA's overall cost cap on CenterPoint's plan and a prudency review for all cost recovery, the Commission does not consider it necessary to impose a cost cap specifically on Pilot C at this time.

The Commission also agrees with CenterPoint that the NGIA allows utilities to purchase environmental attributes without the associated commodity gas because such purchases support RNG production and further the goals of the NGIA.

Regarding geographic considerations, the Commission concurs with commenters that CenterPoint should prioritize purchasing RNG produced in Minnesota. Accordingly, the Commission will modify Pilot C to prioritize geographic preferences as follows:

- RNG interconnected with CenterPoint's Minnesota distribution system;
- RNG within Minnesota; and

¹² Minn. Stat. § 216B.2427, subd. 2(d)(1).

- RNG in neighboring regions.¹³

Turning to the issue of feedstocks, the Commission is not persuaded that it should limit the types of feedstocks for Pilot C as the CEOs recommended. The CEOs may be correct that some methods of RNG production are preferable to others for various reasons, but at this early stage of NGIA implementation, CenterPoint should be allowed to purchase RNG from all the proposed types of feedstocks. This will give CenterPoint the opportunity to learn more about the various sources of RNG and possibly allow CenterPoint to buy more of its RNG from Minnesota-based producers.

Additional information on the size of dairy farms that participate in RNG production would be useful for future innovation plan proceedings. To that end, the Commission will require CenterPoint to collect data on dairy cow herd size for RNG purchases from dairy farms and provide that data in its annual status reports. Through its annual status reports, CenterPoint must provide an analysis that compares the farm sizes participating in Pilot C to the statewide average, and range, of herd sizes.

3. Pilot D – Green Hydrogen Blending into Natural Gas Distribution System

Under Pilot D, CenterPoint proposed to own and operate a one-megawatt green hydrogen plant at an existing CenterPoint facility in Mankato. CenterPoint would install dedicated solar panels, an electrolyzer, a hydrogen storage system, and other necessary systems and equipment to generate, store, and blend hydrogen into the natural gas distribution system.

a. Comments

Commenters were divided on Pilot D. The Department stated that there is inherent value in studying the implementation of hydrogen blending but expressed concerns, which other commenters also voiced, due to the allegedly poor performance of an existing hydrogen blending facility that CenterPoint operates. The Department recommended reviewing the causes of the poor performance at the existing facility before moving forward with Pilot D. Commenters also expressed concerns about Pilot D's cost, the safety of hydrogen blending, and the effects of hydrogen blending on the integrity of the natural gas distribution system.

CenterPoint disagreed with commenters' assertions that CenterPoint's existing hydrogen blending facility has performed poorly, noting that production has increased significantly over time and that operating the facility has created valuable learning opportunities. In response to safety concerns, CenterPoint stated that it consulted with the Minnesota Office of Pipeline Safety and would follow all applicable safety regulations. CenterPoint acknowledged that there is an upper threshold on how much hydrogen can be safely blended into the system, but explained that even a five-percent hydrogen blend would reduce a substantial amount of GHG emissions.

¹³ For purposes of this program, neighboring regions would be participants injecting in an interstate pipeline system that delivers to Minnesota or a distribution system connected to an interstate pipeline that delivers to Minnesota within the states of Iowa, North Dakota, South Dakota, Iowa, Wisconsin and the upper peninsula of Michigan and participants injecting gas in the Northern interstate pipeline in Nebraska and Kansas, north of Demarc.

b. Commission Action

The Commission understands commenters' concerns about Pilot D but is persuaded that the pilot should be approved. Pilot D presents an opportunity for CenterPoint to learn more about blending hydrogen with natural gas at a facility that is being powered, at least in part, by onsite renewable energy. CenterPoint expects the reduction in geologic gas throughput and GHG emissions to be significant, which furthers the goals of the NGIA. With the experience CenterPoint has already gained from operating its existing hydrogen blending facility, the new facility under Pilot D is more likely to be successful and provide even more learning opportunities. CenterPoint should further explore implementing this innovative technology.

To ensure that carbon-free electricity is being used for Pilot D, the Commission will require CenterPoint to specify the source of additional power that it will use for the pilot, including any green tariff or power purchase agreement that it will use to procure the power.

4. Pilot E – Industrial or Large Commercial Hydrogen and Carbon Capture Incentives¹⁴

Under Pilot E, CenterPoint would identify a small number of large commercial or industrial customers interested in installing either power-to-hydrogen or carbon-capture demonstration projects and support their projects by providing financial assistance towards feasibility studies and project costs. The pilot contains an initial scoping study to aid with customer identification. To incentivize customer participation, CenterPoint would pay 100 percent of capital costs for project installation up to a maximum of \$1.5 million for a single project.

a. Comments

Commenters broadly supported Pilot E. The CEOs and CUB both recommended that CenterPoint prioritize hard-to-electrify customers, and CUB encouraged enrolling industrial customers. The CEOs also recommended imposing a minimum amount of natural gas savings that customers would need to achieve to qualify for the power-to-hydrogen project.

CenterPoint was amenable to imposing a minimum amount of natural gas savings for the power-to-hydrogen project and suggested 136,000 dekatherms over the lifetime of the project. Regarding prioritizing hard-to-electrify customers, CenterPoint said that it was not aware which of its customers are industrial as opposed to commercial, and it was not able to determine which customers are hard to electrify. But CenterPoint thought it was likely that customers would not incur the substantial costs to participate in Pilot E if they were able to electrify easily. CenterPoint supported a decision option in which it would describe in its annual filings how it is working with its customers to identify opportunities to work on a hydrogen project for an industrial process customer in Pilot E.

¹⁴ CenterPoint states that Pilot E satisfies the requirement in Minn. Stat. § 216B.2427, subd. 7, that the “first innovation plan filed under this section [...] must include a pilot program to provide innovative resources to industrial facilities whose manufacturing processes, for technical reasons, are not amendable to electrification.”

The Department supported the power-to-hydrogen proposal but recommended classifying the proposed carbon-capture scoping study as an R&D project. The Department recommended that any other budget allocations for carbon capture should be removed until CenterPoint has identified at least one potential customer and provided additional information on the cost effectiveness of carbon-capture technology. The Department made a similar recommendation for other pilots where CenterPoint had not preidentified participants.

CenterPoint disagreed with the Department's general position that pilot participants must be identified before receiving budget approval. CenterPoint argued that such an approach is unreasonable because it would require CenterPoint to incur significant marketing and outreach costs before stakeholders and the Commission had a chance to review pilots. Also, pilot designs may change during the regulatory process, which could affect customer interest, and predetermining customers for each pilot could force other interested customers to wait to join a pilot until the innovation plan can be modified.

CenterPoint also opposed changing the scoping study proposal to an R&D expense because it does not satisfy the R&D criteria in CenterPoint's petition. CenterPoint asserted that the scoping study is an integral part of implementing Pilot E, and as the pilot with the fourth largest estimated GHG reductions, CenterPoint argued that the Commission should approve the full budget proposal. CenterPoint explained that even though the budget is based on one hydrogen participant and one carbon-capture participant, it would be flexible in allowing multiple participants for either program depending on interest and available funds.

The City of Minneapolis recommended requiring customers participating in Pilot E to pay fifty percent of the costs. CenterPoint responded that a large upfront incentive would better motivate customers who need to invest time and effort in the pilot and bear the ongoing operating costs.

b. Commission Action

The Commission agrees with commenters that Pilot E should be approved. The pilot presents the opportunity to reduce GHG emissions from industrial customers that are not amenable to electrification. To ensure a minimum amount of savings in the power-to-hydrogen project, the Commission will adopt the requirement that a customer must reduce 136,000 dekatherms of natural gas over the life of the project to qualify. The Commission will also require CenterPoint to describe in its annual filings how it is working with its customers to identify opportunities to work on a hydrogen project for an industrial process customer within the Pilot E power-to-hydrogen archetype. This reporting requirement will help inform the Commission and stakeholders about whether Pilot E is helping to decarbonize hard-to-electrify manufacturing processes.

The Commission will not reduce Pilot E's budget as the Department proposed or direct CenterPoint to pursue the carbon-capture scoping study as an R&D project. Both the power-to-hydrogen and carbon-capture projects present learning opportunities and the possibility of significant reductions in GHG emissions. CenterPoint should have the flexibility to work with customers in either project as interest and funding allows. The Commission also declines to require customers to pay fifty percent of the upfront costs to participate in Pilot E as the City of Minneapolis proposed. The pilots in CenterPoint's innovation plan will only yield results if customers participate, and the Commission views the incentive in Pilot E as a reasonable means of encouraging participation.

5. Pilot F – Industrial Methane and Refrigerant Leak Reduction

Under Pilot F, CenterPoint would hire a vendor to conduct surveys of participating industrial and large commercial facilities for methane and refrigerant leaks behind the customer gas meter. CenterPoint would also offer incentives to partially offset the cost of leak repair.

a. Comments

No commenters opposed this pilot. CEE observed that the findings from Pilot F will help mitigate environmentally damaging leaks across CenterPoint's system. The City of Minneapolis voiced its support for the pilot but recommended that contractors be solicited from in-state to support the local economy.

The Department supported Pilot F but recommended reducing the budget to accommodate ten participants instead of twenty-five because CenterPoint only identified one potential participant. The CEOs advocated for several modifications to the pilot, including, among others, evaluation of both piping and appliances, which CenterPoint supported. Lastly, the OAG questioned the accuracy of CenterPoint's estimates of how much methane savings would result from Pilot F and recommended reducing the estimates before the Commission assessed the pilot's benefits.

In response to the Department, CenterPoint restated its position that it was not seeking participants for all its pilots before approval of its innovation plan. But CenterPoint noted that it expected to reach the planned twenty-five participants for Pilot F based on its experience implementing customer programs. In response to the OAG, CenterPoint acknowledged uncertainty in its methane-savings estimates but reiterated its view that the estimates are conservative. CenterPoint asserted that even if the methane savings were four times lower than estimated, Pilot F would still be cost effective.

b. Commission Action

The Commission agrees with commenters that Pilot F should be approved. As the OAG observed, preventing methane from entering the atmosphere is an important part of addressing climate change, and Pilot F will further this effort by repairing methane leaks.

The Commission will not reduce Pilot F's budget as the Department proposed. As with Pilot E, the Commission is not persuaded that it was necessary for CenterPoint to identify all its pilot participants before approval of its innovation plan. If CenterPoint does not find the expected twenty-five participants for the pilot, it will likely not use the entire budget, which protects ratepayers' interests. Regarding the OAG's concerns about the methane-savings estimates, the Commission understands there is uncertainty in the estimates but is persuaded that the pilot should be approved given its cost effectiveness even if the methane savings ends up being significantly lower than expected.

As to the City of Minneapolis's recommendation to use in-state labor, the Commission will encourage participants in Pilot F, and other pilots, to employ contractors that maximize opportunities for residents of communities CenterPoint serves and local workers to the extent feasible. The Commission will also require that Pilot F include the evaluation of both indoor

pipng and appliances to the extent feasible, as the CEOs recommended, and impose several annual filing requirements specific to the pilot.

6. Pilot G – Urban Tree Carbon Offsets

Under Pilot G, CenterPoint proposed to purchase carbon offsets from local non-profit, Green Cities Accord. Green Cities Accord works with local tree-planting partners across the seven-county Twin Cities Metro area to plant trees in urban areas and funds their work by selling carbon offsets.

a. Comments

Commenters were divided on Pilot G. The City of Minneapolis supported the pilot and highlighted its environmental justice benefits and cost effectiveness. Conversely, the Department, the CEOs, CUB, and the OAG recommended rejecting it. The Department opposed the project because purchasing carbon offsets would result in carbon being captured by trees that have already been planted. Unless new trees were planted, the Department asserted, there would be no new emissions reductions. The Department expressed interest in a pilot that included planting new trees. CenterPoint responded that the money used to purchase carbon offsets from Green Cities Accord would go towards the planting of new trees and the upkeep of existing trees.

The OAG, the CEOs, and CUB opposed Pilot G as inconsistent with the NGIA. They based their arguments on the statutory definition of “carbon capture” and asserted that trees do not capture GHG “emissions that would otherwise be released into the atmosphere.”¹⁵ Rather, trees remove GHG emissions that have already been released. CenterPoint disagreed with this interpretation of the NGIA and stated that trees capture carbon that would otherwise remain released in the atmosphere.

In addition to capturing carbon, CenterPoint highlighted the benefits of planting trees in urban areas, including the reduction of stormwater runoff, air pollution, urban heat effects, and heating and cooling costs. CenterPoint also noted that Green Cities Accord targets tree planting in areas of limited tree coverage, which have a high correlation with areas of concentrated poverty.

b. Commission Action

The Commission is persuaded that Pilot G should be approved. Trees play an important role in combatting climate change by absorbing—or capturing—carbon dioxide from the air and releasing oxygen. In winter, trees can shelter homes from wind that causes heat loss, thereby reducing the need to operate gas-fired furnaces as often. In that way, planting trees could reduce natural gas throughput, a goal of the NGIA.¹⁶ Also, as CenterPoint observes, trees planted in urban areas benefit populations that are often most impacted by the negative effects of climate change.

¹⁵ Minn. Stat. § 216B.2427, subd. 1(c).

¹⁶ Minn. Stat. § 216B.2427, subd. 10.

CenterPoint addressed the Department’s concerns about new trees being planted under the pilot. For purposes of oversight, the Commission will require CenterPoint to provide information about the number of new trees planted and the average cost of the new trees in its annual status reports.

And while there are reasonable and differing interpretations of the NGIA’s approach to carbon capture, the Commission is unpersuaded that this first application of the statute calls for its narrowest reading. Other approaches to carbon capture may be more reasonable in future iterations of innovation plans, but those will be explored upon reflection of the pilot’s effectiveness and continuing examination of the issues, which will facilitate careful consideration of possible program refinements or changes. The Commission simultaneously recognizes the importance of minimizing ratepayer impacts and is satisfied that the level of spending/budget allocation related to this pilot is reasonably minimal, while furthering important public policy goals, and the Commission will therefore approve this pilot.

7. Pilot H – Carbon Capture Rebates for Commercial Buildings

Under Pilot H, CenterPoint proposed to provide rebates to commercial customers that install CarbinX carbon capture systems manufactured by Canadian company CleanO2. These units connect to existing natural gas heating equipment, capture CO₂, and convert it into chemicals that are resold for commercial uses.

a. Comments

Commenters were divided on Pilot H. The City of Minneapolis expressed support for the pilot as did public commenters from the University of Minnesota, Bloomington Public Schools, and Minneapolis Public Schools. Commenters emphasized how the technology could help their organizations meet their decarbonization goals.

In contrast, the Department recommended rejecting Pilot H. The Department stated that CenterPoint has an existing CarbinX pilot in its Energy Conservation and Optimization (ECO) program and asserted that CenterPoint failed to adequately explain why Pilot H could not proceed through ECO.¹⁷ Similarly, CUB and the CEOs questioned the need for a CarbinX pilot in CenterPoint’s innovation plan when there is already a similar ECO pilot.

CenterPoint responded that the primary focus of its CarbinX pilot in ECO is on energy savings and noted that the pilot is fully subscribed. Through Pilot H, CenterPoint proposed emphasizing the carbon capture savings of CarbinX units and focusing on deploying units to a larger number of customers.

¹⁷ A program approved through ECO is administered by a utility with regulatory oversight by the Department. ECO portfolios promote energy efficient technologies and practices by providing rebates, marketing, and technical assistance to utility customers. The Department reviews and approves ECO regulatory filings. In 2021, the governor signed the Minnesota ECO Act into law, which modernized the existing Conservation Improvement Program (CIP). Commenters often used the acronyms “ECO” and “CIP” interchangeably in their filings. For simplicity’s sake, the Commission will use “ECO” throughout this order, except as otherwise noted.

The Department ultimately proposed an alternative in which the Commission would approve Pilot H but direct CenterPoint to begin pilot implementation after the completion of the ECO CarbinX project.

b. Commission Action

The Commission is persuaded that Pilot H should be approved. The CarbinX units reduce GHG emissions and provide revenue opportunities for customers. Even though CarbinX technology is already being explored in an ECO pilot, a larger number of customers using CarbinX units would increase learning opportunities and environmental benefits.

As with some other pilots in CenterPoint's innovation plan, the Department is not satisfied with CenterPoint's explanation for why Pilot H cannot be administered through ECO because a similar program already exists in ECO. The NGIA provides that "energy efficiency" and "strategic electrification" do not include investments that the Commissioner of Commerce determines could reasonably be included in a natural gas utility's ECO plan.¹⁸ The Commissioner of Commerce has not made such a determination for any of the pilots included in CenterPoint's plan. In its initial filing in this docket, CenterPoint discussed the pilots that include energy efficiency or strategic electrification and explained why those pilots were appropriately included in its plan instead of ECO.¹⁹ The Commission is persuaded by CenterPoint's explanations for why these pilots should be included in its innovation plan and will therefore approve pilots that meet the requirements of the NGIA and further the state's GHG and renewable energy goals.

Concerning Pilot H specifically, the NGIA does not require the pilot to proceed through ECO. The language in Minn. Stat. § 216B.2427, subd. 1(f) pertains to energy efficiency resources, but Pilot H utilizes both energy efficiency and carbon capture resources. The NGIA does not require carbon capture pilots to be included in ECO programs, and the Commission is unpersuaded that the NGIA mandates that the pilot be included in ECO simply because a portion of the pilot involves energy efficiency.

The Commission will adopt the Department's alternative decision option. Waiting until completion of the ECO CarbinX project will allow CenterPoint to maximize learning opportunities from the ECO pilot before implementing Pilot H.

8. Pilot I – New Networked Geothermal Systems

Under Pilot I, CenterPoint proposed to develop a new networked geothermal system to provide building heating and cooling for a neighborhood currently served by CenterPoint. This pilot starts with a study phase to identify the location, technologies, and business model for the system.

a. Comments

Commenters generally supported CenterPoint pursuing a networked geothermal system, but some advocated for a more cautious approach. The Department asserted that CenterPoint did not

¹⁸ Minn. Stat. § 216B.2427, subd. 1(f) and (q).

¹⁹ Petition by CenterPoint Energy for Approval of its First Natural Gas Innovation Plan, Exhibit I.

provide enough information to determine the reasonableness of the pilot and recommended requiring CenterPoint to file a modified version of Pilot I that funds a feasibility study for a networked geothermal system for new construction. The OAG agreed with the Department but recommended allowing CenterPoint to request modification of the pilot for approval of additional costs after providing information from the feasibility study.

The CEOs supported approving Pilot I, and along with CUB, recommended requiring CenterPoint to install a networked geothermal system in a low-income or environmental justice area and requiring CenterPoint to file additional information with its first annual status report about how it will facilitate stakeholder and community engagement for the pilot.

CenterPoint was receptive to commenters' feedback and ultimately supported several decision options that addressed their recommendations.

b. Commission Action

The Commission agrees with commenters that networked geothermal system technology could potentially provide substantial environmental and financial benefits for customers. Accordingly, the Commission will approve Pilot I with the modifications that CenterPoint supported.

Generally, the modifications require CenterPoint to, among other things, (1) include certain information in the feasibility study, (2) request approval from the Commission prior to implementation if the feasibility study indicates that total costs will exceed plan estimates by more than ten percent, (3) file additional information about how CenterPoint will facilitate stakeholder and community engagement, (4) issue a request for interest (RFI) to solicit feedback from communities and developers interested in the pilot, and (5) provide information related to the RFI process in its annual status reports.

9. Pilot J – Decarbonizing Existing District Energy Systems

Under Pilot J, CenterPoint proposed to help existing district energy systems that currently use geologic gas to identify opportunities to reduce the lifecycle GHG impact of their systems via funding for feasibility studies and financial support for following through with study recommendations.

a. Comments

The CEOs and the City of Minneapolis supported Pilot J. The CEOs recommended that Pilot J not count toward the NGIA's twenty-percent district energy cap unless the resulting system meets the definition of "district energy."²⁰ The CEOs also recommended that the feasibility studies include a full electrification/decarbonization scenario.

²⁰ Minn. Stat. § 216B.2427, subd. 2(d)(2) limits a utility's cost recovery for district energy pilots to twenty percent of the costs the Commission approves for recovery under the plan.

The Department initially recommended rejecting Pilot J because, in the Department’s view, it does not meet the statutory definition of “district energy.”²¹ The Department also asserted that insofar as Pilot J could qualify as an energy efficiency or strategic-electrification pilot, CenterPoint had not explained why the pilot could not be included in ECO. Ultimately, the Department proposed approving Pilot J subject to the application of screening criteria that would allow the Department to remove the pilot from CenterPoint’s plan if projects within the pilot do not satisfy the screening criteria.²²

CenterPoint responded that even though projects implemented within Pilot J may not meet the definition of district energy, the pilot should still be approved. Pilot J involves two parts for any given participant: a feasibility-study phase and an implementation phase. CenterPoint explained that after the feasibility-study phase, CenterPoint would support participants in implementing GHG reduction projects that utilize any of the innovative resources in the NGIA. CenterPoint stated that it would screen all energy efficiency and strategic electrification projects for inclusion in ECO before pursuing NGIA funding. Even though there may be possible overlap, CenterPoint asserted that Pilot H goes significantly beyond what is possible in ECO.

b. Commission Action

The Commission is persuaded that Pilot J should be approved. The pilot provides the opportunity for CenterPoint to assist participants in decarbonizing existing district energy systems using any of the innovative resources identified in the NGIA. Because participants may elect to use resources other than district energy to reduce GHG emissions, the Commission agrees with the CEOs that Pilot J should not count toward the NGIA’s twenty-percent cost recovery cap unless the project meets the statutory definition of “district energy.”

The Commission also agrees with the CEOs that it is important to include a full electrification/ decarbonization scenario in feasibility studies, but the Commission will not require inclusion of such a scenario. Participants will bear the majority of the costs of the feasibility study, and the Commission does not want to deter participation by imposing an additional requirement. Instead, the Commission will require CenterPoint to offer customers the option to include a full electrification/decarbonization scenario in the feasibility study, and CenterPoint will include in its annual status reports the number of customers who choose to study such a scenario.

As to the Department’s position on Pilot J, the Commission is not convinced that the pilot should be rejected because it does not neatly fit into the definition of one of the innovative resources. It remains to be seen which innovative resources participants will use to reduce their GHG emissions in Pilot J. If participants choose energy efficiency or strategic electrification, CenterPoint will pursue including the project in ECO. If that is not possible, the project will proceed through the NGIA. ECO and the NGIA should not interfere with one another, but rather

²¹ The term “district energy” is defined under the NGIA as “a heating or cooling system that is solar thermal powered or that uses the constant temperature of the earth or underground aquifers as a thermal exchange medium to heat or cool multiple buildings connected through a piping network.” Minn. Stat. § 216B.2427, subd. 1(e).

²² The Department made a similar recommendation for Pilots K, L, M, O, and R.

both be used to implement programs that benefit utilities' customers and further the state's GHG and renewable energy goals.

The Commission is unpersuaded that it should adopt the Department's proposal to approve Pilot J, or any other pilots, subject to an additional screening process by the Department. Imposing an additional screening process would likely impede CenterPoint's ability to explore several pilot programs and is unnecessary since the Commission has determined that CenterPoint's proposed pilots are appropriately included in its innovation plan.

10. Pilot K – New District Energy System

Under Pilot K, CenterPoint proposed a pilot to help current natural gas customers considering developing district energy systems by providing funding for feasibility studies and financial support to follow through with feasibility-study recommendations.

a. Comments

Commenters' positions on Pilot K were essentially the same as they were for Pilot J. The CEOs supported the pilot and recommended that the pilot not count toward the twenty-percent statutory district energy cap unless the resulting system meets the definition of "district energy." The City of Minneapolis also supported the pilot.

The Department initially recommended rejecting the pilot because CenterPoint had not established that any of the potential participants' projects would meet the definition of "district energy." In response, CenterPoint clarified that it expects most participant projects in Pilot K to meet the definition of "district energy," but one possible project would meet the definition of "strategic electrification." Ultimately, the Department made a modified recommendation similar to the one it made for Pilot J in which Pilot K would be approved subject to additional screening criteria.

b. Commission Action

The Commission is persuaded that Pilot K should be approved as a means of exploring implementation of district energy systems and possibly a strategic electrification system. The Commission also agrees with the CEOs that Pilot K should not count toward the statutory twenty-percent district energy cap unless the resulting system meets the statutory definition of "district energy." As with Pilot J, the Commission will not adopt the Department's proposed screening process for this pilot because it would unnecessarily delay implementation of the pilot.

11. Pilot L – Industrial Electrification Incentives

Under Pilot L, CenterPoint would support industrial customers to electrify low-to-medium heat processes using heat-pump technologies. This pilot begins with a study phase to identify promising heat-pump technologies and potential industrial applications.

a. Comments

Commenters generally supported Pilot L. The CEOs recommended approving Pilot L with modifications, including (1) ensuring the pilot is not limited to hybrid heating systems, (2)

prioritizing investments in electric heating equipment rather than the installation of new gas backup in hybrid heating systems, (3) requiring CenterPoint to study geothermal heat pumps, and (4) requiring CenterPoint to collect data on how often gas backups are needed in hybrid heat-pump systems.

CenterPoint supported the CEOs' modifications except for prioritizing investments in electric heating equipment instead of the installation of new gas backup in hybrid heating systems. In CenterPoint's view, the definition of "strategic electrification" in the NGIA reflects a policy goal of ensuring that participants remain CenterPoint customers while participating in the pilot. CenterPoint explained that if participants remain customers, they will continue to pay a portion of the pilot costs through their ongoing gas service. Participants continuing to be CenterPoint customers also avoids the possibility that other CenterPoint customers would end up subsidizing pilot participants discontinuing their gas service.

b. Commission Action

The Commission is persuaded that Pilot L should be approved. Pilot L utilizes strategic electrification to reduce natural gas usage for a small number of CenterPoint's industrial customers. If CenterPoint is able to help industrial customers successfully implement electric heating technologies, the broader adoption of such technologies could lead to substantial reductions in GHG emissions. The pilot is therefore consistent with the goals of the NGIA and should be approved.

The Commission will also adopt the modifications to Pilot L that the CEOs proposed and CenterPoint supported. The Commission is persuaded that it should not require CenterPoint to prioritize investments in electric heating equipment to help ensure that pilot participants remain CenterPoint customers.

12. Pilot M – Commercial Hybrid Heating

Under Pilot M, CenterPoint proposed to provide support for small-to-medium commercial buildings interested in replacing heating, ventilation, and air conditioning systems with hybrid systems using electric heat pumps and gas backup.

a. Comments

Commenters generally supported Pilot M. The CEOs recommended the same modifications for Pilot M that they proposed for Pilot L. The City of Minneapolis noted the importance of including a diverse group of participants and encouraged CenterPoint to offer a greater participation incentive for small businesses in environmental justice areas.

b. Commission Action

The Commission is persuaded that Pilot M should be approved because it provides an opportunity to reduce carbon emissions in small-to-medium commercial buildings and encourages the use of emerging commercial hybrid heating technologies.

The CEOs' recommended modifications are not all appropriate for Pilot M because CenterPoint's proposal involves using hybrid rooftop units that use electric heat pumps and gas

backup. These units make consideration of non-hybrid systems, prioritization of electric heating equipment, or geothermal heat pumps impracticable. The Commission will, however, require CenterPoint to collect data on how often gas backups are needed in the subset of hybrid heat pump systems included in CenterPoint's measurement and verification plan.

The Commission agrees with the City of Minneapolis on the importance of having small businesses in environmental justice areas participate in Pilot M. The Commission will therefore require CenterPoint to monitor the type of customers that enroll in Pilot M, report its findings, and discuss whether pilot modifications are warranted if a disproportionately low number of participants are located in environmental justice areas.

13. Pilot N – Residential Deep Energy Retrofits and Electric Air Source Heat Pumps

Under Pilot N, CenterPoint would provide support for residential customers interested in retrofitting their homes to significantly improve energy efficiency and installing air source heat pumps with gas backup. This pilot starts with a study phase to identify appropriate measures and home characteristics for deep energy retrofits.

a. Comments

Commenters supported Pilot N but recommended various modifications. The Department recommended reducing the budget for Pilot N to align with the participation level reflected in the responses to the RFI. CenterPoint argued that its proposed budget for Pilot N was appropriate because the RFI responses did not include multi-family buildings, which would be included in the pilot, and that cost and participation estimates were not based entirely on RFI responses. CEE agreed with CenterPoint that its proposed participation goal was attainable and the budget appropriate.

The City of Minneapolis noted the benefits of deep energy retrofitting and recommended that Pilot N make up a much larger share of CenterPoint's innovation plan. In response, CenterPoint stated that Pilot N has the second largest pilot budget in its innovation plan, and even though it does not intend to increase the budget at this time, participation estimates may warrant refinement in the future.

The CEOs suggested that CenterPoint (1) not limit Pilot N to hybrid heating systems and prioritize electric heating equipment, (2) examine the impact of retrofit levels on gas backup demand in different types of homes, and (3) pursue the goal that up to 100% of residences participating in the phase 2 field testing portion of Pilot N are low-income residences.

Regarding prioritizing electric heating equipment, CenterPoint opposed that modification for the same reasons it gave in Pilots L and M. As to the CEOs' second recommendation, CenterPoint supported examining the impact of retrofit levels on gas backup demand and expressed its intent to collect and analyze such information as part of the pilot. Finally, CenterPoint agreed with the CEOs that it is important to provide program access to low-income residents but resisted a 100% goal noting that it is also important to take advantage of learning opportunities from a wide variety of home types.

b. Commission Action

The Commission agrees with commenters that Pilot N should be approved. The pilot meets the NGIA requirement that the first innovation plan filed must include a pilot program that facilitates deep energy retrofits and the installation of cold climate electric air-source heat pumps.²³ CenterPoint's anticipated participation level is reasonable, and the Commission therefore declines to modify the budget as the Department and the City of Minneapolis proposed.

As to the CEOs' recommendations, the Commission appreciates CenterPoint's willingness to collect and analyze information on the impact of retrofit levels on gas backup demand. The Commission agrees with CenterPoint that Pilot N should not be limited to electric heating equipment for the reasons discussed in Pilot L, and that phase 2 field testing should not be limited exclusively to low-income residences so that CenterPoint has a wider variety of learning opportunities. The Commission will approve Pilot N without pilot-specific modifications.

14. Pilot O – Small/Medium Business Greenhouse Gas Audit

Under Pilot O, CenterPoint proposed to expand its existing Conservation Improvement Program (CIP) Natural Gas Energy Analysis project to include identification of non-CIP GHG reducing opportunities for small- and medium-sized businesses. Recommendations may include measures available under the pilots for Carbon Capture Rebates for Commercial Buildings (Pilot H) and Commercial Hybrid Heating (Pilot M).

a. Comments

CUB, the CEOs, and the City of Minneapolis expressed support for Pilot O. The CEOs recommended prioritizing weatherization and energy efficiency over carbon capture technologies, and the City of Minneapolis advocated a similar modification.

b. Commission Action

The Commission is persuaded that Pilot O should be approved because it provides an opportunity for more small- and medium-sized businesses to reduce their GHG emissions. It also satisfies the NGIA requirement that the first innovation plan filed "must include a pilot program to provide thermal energy audits to small- and medium-sized businesses in order to identify opportunities to reduce or avoid greenhouse gas emissions from natural gas use."²⁴

The Commission appreciates the CEOs' and the City of Minneapolis's proposed modifications but is not persuaded that some innovative resources should be prioritized over others in Pilot O. Prioritization of certain innovative resources may be appropriate in the future, but at this early stage of plan implementation, CenterPoint should be allowed to use innovative resources that align with participant interest.

²³ Minn. Stat. § 216B.2427, subd. 8.

²⁴ Minn. Stat. § 216B.2427, subd. 6.

15. Pilot P – Residential Gas Heat Pumps

Under Pilot P, CenterPoint proposed to fund the development and testing of a small number of combi-space and water heating gas-heat-pump systems in Minnesota homes.

a. Comments

While some commenters supported Pilot P, several strongly opposed it. The Department recommended rejecting Pilot P because, it asserted, electric-air-source heat pumps are more efficient and cost effective than gas heat pumps. And since the technologies serve the same function, the Department argued, there is no reason for CenterPoint to pursue gas-heat-pump technology. If the Commission approved the pilot, however, the Department recommended that CenterPoint maximize the tax incentives available under the federal Inflation Reduction Act (IRA).

The CEOs also recommended rejecting Pilot P. They argued that gas heat pumps do not provide a pathway to full decarbonization and asserted that electric heat pumps are a more scalable, mature, and cost-effective technology. Similarly, the City of Minneapolis opposed the pilot and asserted that gas heat pumps are an expensive technology for reducing emissions compared to other technologies. The City of Minneapolis also noted that installing gas heat pumps would transition electric cooling to gas and argued that Pilot P is inconsistent with the state's goal of reducing GHG emissions. Many public commenters opposed Pilot P for these same reasons and expressed a strong preference for electrification.

In response to comments in opposition to Pilot P, CenterPoint argued that it should be allowed to explore both gas and electric heat pumps in its innovation plan. CenterPoint explained that the technologies have some fundamental differences that could make installation of gas heat pumps preferable depending on building types or customer preference. CenterPoint also emphasized that gas heat pumps are more efficient than standard gas equipment and could improve gas efficiency, which is consistent with the goals of the NGIA.

CenterPoint disagreed with the assertion that gas heat pumps could not be compatible with a fully decarbonized future. If used with zero or negative GHG fuels, such as certain kinds of RNG, gas heat pumps would emit zero emissions, CenterPoint argued.

Regarding tax incentives available under the IRA, CenterPoint agreed with the Department that it is important to maximize such incentives but argued that it was inappropriate for Pilot P because pursuing the incentives could discourage participation. CenterPoint explained that the total incentive available under Pilot P would be \$12,000, but to get that amount, participants would need to pay \$4,600 each and have a large enough tax liability to take advantage of the tax credit. Since gas heat pumps are an emerging technology that is not widely adopted, CenterPoint viewed covering 100 percent of participants' costs as the best way to encourage participation.

b. Commission Action

The Commission is persuaded that Pilot P should be approved. Through the pilot, CenterPoint will explore implementing gas heat pumps, an emerging technology, and learn what role these pumps could play, if any, in achieving the NGIA's goals. If CenterPoint is correct that there are

building types where gas heat pumps would be preferable to electric heat pumps, then the technology will likely prove helpful. At the very least, emissions will be reduced for customers that are unwilling to install electric heat pumps because gas heat pumps are more efficient than standard gas equipment. CenterPoint expects Pilot P to involve just six systems, which makes it a comparatively modest pilot proposal that could provide important learning opportunities for an emerging technology.

Regarding the Department's recommendation that CenterPoint be required to maximize IRA tax incentives, the Commission agrees with CenterPoint that requiring participants to pay \$4,600 towards installation may deter participation. The Commission will therefore not impose that requirement.

To ensure that the Commission and stakeholders are informed about the pilot, the Commission will require CenterPoint to report on continuous field performance monitoring, bill savings, equipment costs, and installation costs for Pilot P in its annual status reports.

16. Pilot Q – Gas Heat Pumps for Commercial Buildings

Under Pilot Q, CenterPoint proposed to fund the development and testing of a small number of gas-heat-pump systems in commercial buildings.

a. Comments

Pilot Q is similar to Pilot P in that it utilizes gas-heat-pump technology. The CEOs and the City of Minneapolis recommended rejecting Pilot Q for the same reasons they gave for rejecting Pilot P (i.e., the technology does not provide a pathway to full decarbonization and is not cost effective). The Department, however, took a different position on Pilot Q and recommended approving the pilot with a modification to maximize utilization of IRA tax incentives to cover installation costs for participants. CenterPoint opposed the modification and stated that there is uncertainty about whether projects under Pilot Q would be eligible for IRA benefits. But even if they were, the dollar amount of any benefits would be a fraction of the participant copay.

b. Commission Action

The Commission is persuaded that Pilot Q should be approved. As with Pilot P, CenterPoint will utilize a relatively modest budget to explore the benefits of emerging gas-heat-pump technology. This technology has the potential to reduce GHG emissions in buildings where the use of other technology is impracticable or undesirable for building owners. The Commission will not require CenterPoint to attempt to maximize possible IRA benefits for the project because doing so could deter customer participation.

17. Pilot R – Industrial and Large Commercial Greenhouse Gas Audit

Under Pilot R, CenterPoint proposed to expand its existing CIP Process Efficiency and Commercial Efficiency projects to include identification of non-CIP GHG reduction measures and payment of incentives for the installation of identified non-CIP measures.

a. Comments

Few commenters specifically addressed Pilot R. The City of Minneapolis supported the pilot, but given its small size, questioned how well it would demonstrate the potential benefits of GHG audits on a bigger scale. The Department recommended approving the pilot, subject to additional screening criteria, but asserted that CenterPoint's proposed incentive level for the pilot was unreasonably high.

In response, CenterPoint argued that the proposed incentive level is necessary to drive customer action and noted that even with that incentive level, Pilot R will result in some of the lowest-cost GHG savings in the innovation plan. As to the City of Minneapolis's point about size of the pilot, CenterPoint responded that if its request for budget flexibility is approved, it would endeavor to increase resources for pilots with higher customer demand.

b. Commission Action

The Commission is persuaded that Pilot R should be approved because expanding upon CenterPoint's CIP programs for industrial and large commercial customers will provide learning opportunities for reducing GHG emissions from these types of customers. The Commission is also persuaded that CenterPoint's proposed incentive level is appropriate to encourage customer participation, and as discussed above, the Commission is not adopting the Department's recommendation to approve certain pilots subject to additional screening criteria.

C. R&D Project Modifications

CenterPoint's innovation plan includes seven R&D pilot proposals for the first two years of the plan. The R&D pilots include:

- **CenterPoint Minnesota Net Zero Study:** CenterPoint proposed to conduct a study to help it and interested parties better understand the different pathways for CenterPoint to reach net zero emissions by 2050.
- **Weatherization Blitzes:** CenterPoint proposed to test intensive, novel, and community-based marketing and outreach approaches to increase participation in CenterPoint's CIP/ECO weatherization offerings.
- **High Performance Commercial New Construction Building Envelope Initiative:** CenterPoint proposed to test a multi-prong strategy to address barriers to integrating high-performance commercial building envelopes in new commercial construction.
- **Assessing Next-Generation Micro-Carbon Capture for Commercial Buildings:** This proposed R&D pilot will investigate the carbon-capture effectiveness and heat-recovery efficiency of CleanO2's next generation CarbinX units (version 4.0). This pilot complements the full pilot Carbon Capture Rebates for Commercial Buildings (Pilot H) which will incentivize installation of version 3.0 units.

- **Green Ammonia Novel Technology:** This pilot will support testing of a Modular One Vessel Ammonia Production System for green ammonia, which has the potential to improve production efficiency and reduce costs for green ammonia production.
- **RNG Potential Study:** CenterPoint will study three regions in its Minnesota service territory for potential development of an RNG production facility. Regions will be selected based on the potential for production of RNG feedstock and the feasibility of accepting substantial quantities of RNG into CenterPoint’s system.
- **Utilization of Green Ammonia for Thermal Energy Applications:** CenterPoint proposes to support research into how green ammonia may be used in industrial-scale burner applications. The primary goal is to determine operating ranges and burner concepts that can be applied to industrial burners used in grain drying and boilers used for district heating.

CenterPoint proposed to allocate a portion of its R&D budget to these seven pilots over the first two years of the plan and use the remainder of the R&D budget for future R&D projects. CenterPoint stated that by reserving some of the R&D budget until after it begins implementing its innovation plan, it will be able to use what it has learned about deploying innovative resources to create more effective R&D projects.

1. Comments

Commenters supported, with limited exceptions and suggested modifications, CenterPoint’s proposed R&D projects. The Department and the CEOs raised concerns about the unallocated portion of the R&D budget and opposed the project that would explore next generation CarbinX units. As with Pilot H, the Department argued that the CarbinX R&D project should proceed through ECO.

The CEOs and CUB suggested modifying the first R&D project, the Minnesota Net Zero Study, to include an estimation of CenterPoint’s GHG emissions from providing natural gas service and a description of how the innovation plan, as a whole, helps CenterPoint reduce GHG emissions to support the economy-wide timeline and incremental goals established by the legislature. CenterPoint supported this modification.

To assuage commenters’ concerns about the unallocated portion of the R&D budget, the CEE advocated for requiring CenterPoint to propose R&D projects in its annual status reports and receive Commission approval to invest in any such projects. CenterPoint and the Department supported this recommendation.

2. Commission Action

The Commission is persuaded that CenterPoint’s proposed R&D projects should be approved. The projects are designed to yield useful information about innovative resources and provide further insights into how CenterPoint might decarbonize its natural gas service.

The Commission agrees with commenters that it would be helpful for CenterPoint to modify its Minnesota Net Zero Study to include a description of how the innovation plan will help

CenterPoint reduce its GHG emissions. Also, requiring CenterPoint to receive Commission approval for additional R&D projects is appropriate. The Commission will adopt both modifications.

For the same reasons given for Pilot H, the Commission is unpersuaded by the Department's argument that the CarbinX R&D project should proceed through ECO.

D. Request for Budget Flexibility

CenterPoint requested budget flexibility to spend up to twenty-five percent more than budgeted for pilots with higher-than-expected expenditures without seeking additional approval from the Commission. CenterPoint modeled this proposal on the flexibility provided in ECO. Instead of increasing its innovation plan budget, CenterPoint would reallocate funding from pilots with lower-than-expected expenditures, which could be caused by various factors including low pilot participation. CenterPoint stated that its proposal for budget flexibility would not cause the innovation plan, as a whole, to exceed the statutory cost cap.

1. Comments

Commenters were initially divided on CenterPoint's budget flexibility proposal. Those opposed raised various concerns and suggested modifications. For example, the OAG argued that approving budget flexibility would allow CenterPoint to spend up to the statutory cost cap, which would be more than the approved NGIA budget. In recognition of this concern, CenterPoint supported a modification that would require CenterPoint to not exceed the approved budget for its NGIA plan.

CenterPoint also agreed to several modifications based on CUB's recommendations. After stating that it was reasonable for CenterPoint to request some flexibility in describing budgeted costs, CUB recommended against allowing too much flexibility. CUB's concern was that large shifts in budgets could alter the size and cost effectiveness of pilot programs. As an alternative to denying CenterPoint's request, CUB recommended modifications—such as requiring CenterPoint to explain in annual review filings how budgets were modified and why such modifications were warranted—that it argued would ensure CenterPoint's budget flexibility was reasonably limited. CenterPoint supported many of CUB's proposed modifications.

Like CUB, the Department acknowledged that there would be some fluctuation in pilot budgets throughout the plan's implementation but argued that twenty-five percent budget flexibility was too high. The Department asserted that CenterPoint had a financial incentive to shift funding from some pilots to others, a concern the OAG also expressed, and recommended denying CenterPoint's request.

To address this concern, CenterPoint agreed to a modification that would require it to notify the Department and the OAG when it exercises budget flexibility. If the Department or the OAG objected to the use of budget flexibility, CenterPoint would have to seek approval through filing a request in this docket or through its annual status reports.

The OAG raised an additional issue concerning fair cost allocation for pilot programs among customer classes. CenterPoint agreed to a modification that would require it to ensure its cost recovery mechanism trues up customer class allocations to match actual pilot spending.

CenterPoint clarified that approving budget flexibility would not constitute an advanced determination of prudence. To recover costs under the NGIA, CenterPoint must establish that those costs were prudently incurred.

2. Commission Action

The Commission is persuaded that CenterPoint’s request for budget flexibility should be approved as modified in the ordering paragraphs below. With budget flexibility, CenterPoint will be able to reallocate some funding to bolster pilot programs that are performing better than expected. The Commission agrees with CenterPoint that waiting for budget approval through filing an annual plan modification could disrupt successful pilot delivery, but imposing conditions on CenterPoint’s use of the flexibility is also warranted to ensure that any reallocation is consistent with the NGIA. The Commission appreciates commenters’ suggestions on this proposal and CenterPoint’s willingness to adopt them.

E. Cost Recovery Proposal

The NGIA provides that prudently incurred costs under an approved plan are recoverable in three ways:

- via the utility’s purchased gas adjustment (PGA);
- in the utility’s next general rate case; or
- via annual adjustments.²⁵

CenterPoint proposed to use all three methods of recovery. To recover certain fuel costs—such as for RNG and for purchasing electricity under Pilot D—CenterPoint proposed using the PGA mechanism but noted that a rule variance to the applicable PGA rules would be needed to use that method of recovery. CenterPoint explained that the Commission’s rules define “cost of purchased gas” and “cost of fuel consumed in manufacture of gas” in such a way that RNG purchases and electricity purchases for Pilot D do not meet the respective definitions.²⁶

For its remaining innovation plan costs, CenterPoint proposed using the other two cost recovery methods in a manner similar to how it recovers its ECO costs. Certain costs would be included in CenterPoint’s rate case, and it would use the annual rider mechanism to match actual NGIA expenses with recoveries.

1. Comments

Commenters supported or did not take a position on CenterPoint’s cost recovery proposal, including granting CenterPoint a variance to the applicable PGA rules. CUB recommended that

²⁵ Minn. Stat. § 216B.2427, subd. 2(c).

²⁶ Minn. R. 7825.2400, subparts 10 and 12.

CenterPoint include relevant information from monthly PGA filings and annual automatic adjustment (AAA) reports in its annual status reports to allow for comprehensive review of the cost recovery mechanism. CenterPoint supported this modification.

CUB also recommended that CenterPoint be required to recover the costs of upgrading equipment for RNG pilots, if any, in a rate case. CUB argued that reviewing recovery of these costs as part of a rate case would ensure that such investments are only recovered if prudent and cost effective. CenterPoint opposed this recommendation and noted that all three methods of recovery in the NGIA include a prudence review.

In support of its variance request, CenterPoint explained that the Commission's rules require the Commission to make three determinations before granting a variance, including:

- enforcement of the rule would impose an excessive burden upon the applicant or others affected by the rule;
- granting the variance would not adversely affect the public interest; and
- granting the variance would not conflict with standards imposed by law.²⁷

CenterPoint asserted that the first requirement is satisfied, because if it is not able to recover certain fuel costs through the PGA mechanism, its cost recovery would be delayed and thus its cost of doing business would increase significantly. Intergenerational inequalities would also result, CenterPoint argued, because customers who receive the benefits of the RNG purchases might not be the same customers who pay the costs associated with those resources. Accordingly, CenterPoint argued, not granting the variance would impose an excessive burden on it and its customers.

Regarding the second requirement, CenterPoint stated that its proposed recovery structure is similar to how it already recovers costs from customers, and it is not seeking to recover more costs than are reasonable or permitted by the NGIA. CenterPoint asserted that granting the variance would therefore not adversely affect the public interest.

Finally, CenterPoint argued that the third requirement is met because the variance does not conflict with standards imposed by law. On the contrary, CenterPoint asserted, granting the variance would allow it to recover costs in accordance with the NGIA and as permitted by Minn. Stat. § 216B.16, subd. 7.

2. Commission Action

The Commission is persuaded that CenterPoint's proposed method of cost recovery is consistent with the NGIA and should be approved. The Commission also agrees with CUB that information from monthly PGA filings and CenterPoint's AAA reports would be helpful for review of the PGA cost-recovery mechanism, and the Commission will therefore require CenterPoint to include that information in its annual status reports.

²⁷ Minn. R. 7829.3200, subpart 1.

The Commission will not require CenterPoint to pursue recovery through a rate case for the potential purchase of upgrading equipment for RNG pilots. All three methods of cost recovery include a prudence review, which ensures that CenterPoint will only recover prudently incurred costs.

As to CenterPoint's variance request, the Commission agrees with CenterPoint that the requirements to grant a variance are met for purposes of recovering certain fuel costs. First, enforcing the rule would impose an excessive burden on CenterPoint and its customers by delaying cost recovery and potentially causing some customers to pay for fuel costs that they did not benefit from. Second, granting the variance will not adversely affect the public interest. Third, granting the variance will not conflict with standards imposed by law. The Commission will therefore grant the variance.

To prevent CenterPoint from potentially over recovering for capital expenditures that may not occur, the Commission will require CenterPoint to incorporate in its annual filings a true-up adjustment that reconciles revenues recovered to actual costs.

F. Cost-Effectiveness Objectives

The NGIA directs the Commission to establish cost-effectiveness objectives for innovation plans based on the cost-benefit test for innovative resources developed in the Commission's frameworks order.²⁸ CenterPoint's proposed cost-effectiveness objectives fall into four categories: perspectives, environment, socioeconomic, and innovation. Below are excerpts from the proposal:²⁹

Perspectives

- Overall GHG savings achieved by all approved pilots is achieved at a cost of no more than \$200/MTCO₂e.³⁰ For this objective, costs are measured on a lifetime basis using the utility cost test and GHG savings are also measured on a lifetime basis.
- At least 40 percent of residential units served by the Residential Deep Energy Retrofit and Electric Air Source Heat Pumps Pilot and the Weatherization Blitzes R&D Pilot qualify as low-income, as that term is defined in CIP/ECO, or are located in a disadvantaged community, as that term is defined for the Inflation Reduction Act programs.
- Over the course of the five-year Plan, CenterPoint Energy supports the development of four new sources of low-carbon fuels produced in Minnesota. This may include one or more anaerobic digesters that produces RNG, projects that produce hydrogen via power-to-hydrogen, biogas projects, or projects that create ammonia via power-to-ammonia.

²⁸ Minn. Stat. § 216B.2427, subd. 2(e).

²⁹ The entire updated cost-effectiveness objectives proposal can be found in Exhibit B of CenterPoint's reply comments dated March 15, 2024.

³⁰ Metric tons of carbon dioxide equivalent.

Environment

- The Plan achieves overall lifetime GHG emissions reductions equivalent to 13 percent of emissions from CenterPoint Energy’s 2020 sales. For purposes of this objective, CenterPoint Energy’s 2020 sales include only sales to non-exempt customers and no transport volumes.
- Over the five-year term of the Plan, the Plan achieves annual, first-year GHG emissions reductions equal to one percent of emissions from CenterPoint Energy’s 2020 sales. For purposes of this objective, CenterPoint Energy’s 2020 sales include only sales to non-exempt customers and no transport volumes. Annual, first-year GHG emissions reductions are the sum of GHG reductions expected to be achieved by all projects implemented under the Plan in the first full year of their operation.
- In year five of the Plan, CenterPoint Energy has reduced annual emissions from sales of natural gas by 51,000 metric tons as a result of low-carbon fuels included in the NGIA Plan. This goal includes reductions from RNG, power-to-hydrogen, biogas, and power-to-ammonia provided to non-exempt sales customers.
- To support the state’s renewable energy goal, CenterPoint Energy procures 610,000 dekatherms of sales gas from renewable resources. This goal includes RNG, biogas, power-to-hydrogen, and power-to-ammonia provided to non-exempt sales customers.
- To support the state’s economy-wide net zero GHG emissions goal, CenterPoint Energy completes an analysis of pathways that would allow it to achieve net zero emissions by 2050. CenterPoint Energy anticipates satisfying this goal through the proposed R&D pilot, CenterPoint Energy Minnesota Net Zero Study.

Socioeconomic

- The Plan supports 4 projects that satisfy Inflation Reduction Act requirements around prevailing wages and support for apprenticeships.

Innovation

- The Plan supports projects using at least six of the eight innovative resources.
- 100 percent of completed R&D projects result in a report summarizing learnings and suggesting next steps that will be filed with the Commission and the Company take action on learnings that are within CenterPoint Energy’s control and reasonable to pursue, such as incorporating insights into a subsequent NGIA plan or other Company initiative.

The NGIA provides for an increase in budget for subsequent innovation plans if the Commission determines the utility has successfully achieved a plan’s cost-effectiveness objectives.³¹ To determine whether it has been successful, CenterPoint proposed that the Commission approve additional funding if CenterPoint achieves a majority of its cost-effectiveness objectives.

³¹ Minn. Stat. § 216B.2427, subd. 3(c) and (d).

1. Comments

Commenters took various positions on CenterPoint's cost-effectiveness objectives. The Department recommended against adopting CenterPoint's majority test for determining whether it should receive additional funding because, the Department argued, approving a majority test could incentivize CenterPoint to focus on the success of some pilots at the expense of others. Instead, the Department advocated for pilot-level and plan-level criteria, including a GHG-reduction evaluation for each pilot. CUB and the CEOs also recommended evaluating pilots individually.

Like the Department, CUB, the CEOs, and the City of Minneapolis opposed a majority test. As an alternative, CUB advocated for a holistic approach to plan evaluation to allow the Commission to give greater weight to certain metrics or variables. CenterPoint ultimately supported adopting a holistic evaluation methodology.

CUB asserted that the plan the Commission ultimately approves could impact the cost-effectiveness objectives. For example, modifications to CenterPoint's proposed innovation plan could affect estimates of emissions reductions and geologic-gas savings, which could make some cost-effectiveness objectives unreasonable. CUB initially argued that the Commission should wait until it has established the parameters of the plan to render a decision on cost-effectiveness objectives.

But to avoid administrative inefficiency, CUB ultimately recommended that the Commission establish cost-effectiveness objectives when it approves the plan but require CenterPoint to make a subsequent compliance filing with updated objectives. The subsequent filing would be subject to a thirty-day negative check-off period in which commenters may raise concerns about the updated objectives. If no parties object, the cost-effectiveness objectives would go into effect. CenterPoint agreed with CUB that a subset of the proposed objectives would need to be recalibrated or modified to account for any changes to the plan and supported the modification.

2. Commission Action

The Commission will approve CenterPoint's proposed cost-effectiveness objectives as modified in the ordering paragraphs below. The Commission is persuaded that a holistic evaluation methodology is preferable to a majority test for determining whether CenterPoint has successfully achieved its cost-effectiveness objectives. A holistic approach gives the parties and the Commission more flexibility in subsequent evaluations and helps ensure that CenterPoint does not inappropriately prioritize some pilots over others.

The Commission will require CenterPoint to make a compliance filing within thirty days with updated cost-effectiveness objectives and give commenters an additional thirty days to file any objections. This filing requirement will make certain that the plan and its cost-effectiveness objectives are appropriately aligned.

Finally, in recognition of the NGIA's throughput goal, the Commission will require CenterPoint to include an additional cost-effectiveness objective as follows:

The plan as a whole achieves material reductions to the overall amount of natural gas produced from geologic sources delivered to CenterPoint customers compared to the amount that would have been delivered absent CenterPoint's plan.

G. Annual Status Reports

As discussed above, the NGIA requires utilities with an approved innovation plan to file annual reports on work completed under the plan.³² CenterPoint proposed to file its annual reports on June 1 each year and include in the reports plan activity that occurred in the prior calendar year.

1. Comments

No commenters opposed CenterPoint's annual reporting proposal, and CUB and the CEOs expressly supported it. CUB recommended that CenterPoint include in its annual reports updates on IRA implementation and pilot-specific data on reductions in GHG emissions. CenterPoint agreed to include this information in its annual reports.

2. Commission Action

The Commission agrees with commenters that CenterPoint's annual reporting proposal should be approved. The proposal is consistent with the NGIA and will provide valuable information to the Commission and stakeholders on how the various pilots and programs in the innovation plan are progressing. The Commission also agrees with CUB's recommendations and will require CenterPoint to provide updates on IRA implementation and pilot-specific data on GHG emissions reductions.

To further clarify what information CenterPoint should include in its annual status reports, the Commission will require CenterPoint to propose reporting requirements within thirty days and will delegate authority to the Executive Secretary to approve the compliance filing via notice if no objections are filed within thirty days of CenterPoint's filing.

The Commission will also require CenterPoint to update its list of reporting requirements for new or modified pilots or R&D projects and require CenterPoint to include a similar list of reporting requirements for future NGIA innovation plans. The Commission will delegate authority to the Executive Secretary to update the approved reporting requirements list consistent with decisions made in this and subsequent NGIA-related dockets.

H. Other Plan Modifications

The Commission will direct three additional modifications, which CenterPoint supported, to the innovation plan. First, the Commission will require CenterPoint to purchase and retire the full environmental attributes associated with innovative fuel purchases made through its innovation plan to ensure that environmental benefits resulting from the plan are not claimed for any other program.

³² Minn. Stat. § 216B.2427, subd. 2(f).

Second, since RNG production could provide an opportunity for Minnesota’s small family farms, the Commission will require CenterPoint to consult with the Minnesota Department of Agriculture regarding the possibility of incentivizing more Minnesota small family agricultural operations to participate in the development and sale of RNG. With its first annual status report, CenterPoint shall report on its discussions with the Minnesota Department of Agriculture, and depending on the results of those discussions, propose an R&D project that explores incentives to encourage Minnesota small family farms to participate in RNG markets.

Finally, the Commission will require CenterPoint to prioritize the creation of high-quality jobs and registered apprenticeship opportunities for residents of communities served by CenterPoint, Minnesota residents, and local workers in the implementation of all approved pilot programs as detailed in the relevant ordering paragraph below. This modification furthers the NGIA’s goal of “maximiz[ing] the availability of construction employment opportunities for local workers[.]”³³

I. Future NGIA Plans

1. Comments

For future NGIA plans, the CEOs recommended requiring Center Point to:

- define clear learning objectives and metrics of success for all proposed pilots;
- articulate how the plan will help meet its fair share of state GHG emission reductions; and
- prioritize district energy pilots that meet the statutory definition of this resource.

In response, CenterPoint expressed its support for the CEOs’ first recommendation but opposed the other two. CenterPoint agreed that reducing GHG emissions is an important goal of the NGIA but noted that the NGIA is not singularly focused on GHG reduction, and it does not provide all the tools needed to achieve aggressive GHG reduction goals. CenterPoint also generally opposed prioritizing one GHG reducing option, such as district energy, over another to avoid limiting customers’ options.

2. Commission Action

It would be helpful for CenterPoint to include clear learning objects and metrics of success for pilots in future NGIA plans, and the Commission will therefore order CenterPoint to include that information. But the Commission is not persuaded that it should adopt the CEOs’ other two recommendations.

The CEOs’ recommendations are rooted in their broader argument that in the coming years, CenterPoint’s reductions in GHG emissions should essentially follow a line trending downward, which ends at zero GHG emissions by 2050. To meet this target, the CEOs advocated for a thirty-percent reduction in CenterPoint’s 2020 emissions by 2029, which is far beyond the expected GHG reductions under CenterPoint’s plan. The Commission appreciates the CEOs’ position but agrees with CenterPoint that the NGIA does not require such reductions.

³³ Minn. Stat. § 216B.2427, subd. 2(a)(11).

Instead of mandating a level of emissions reductions, the NGIA encourages natural gas utilities to explore how to use innovative resources to meet the state's GHG and renewable energy goals. It makes sense that GHG emissions reductions will be more modest under utilities' initial innovation plans as they learn which pilots and innovative resources are most effective. Once CenterPoint knows more about pilot effectiveness and scalability, it will be better positioned to more aggressively reduce its GHG emissions.

The Commission will also not require CenterPoint to prioritize district energy pilots in future NGIA plans at this time. Prioritization of certain innovative resources may be appropriate in the future, but a decision on prioritization should be made after CenterPoint has had an opportunity to implement its plan and share what it learns with the Commission and stakeholders.

ORDER

1. The Commission approves CenterPoint's 2023 Natural Gas Innovation Plan as described by CenterPoint in its reply comments filed March 15, 2024, with the modifications identified below.

Pilot Modifications

2. CenterPoint must obtain the information that was required for the bidders for Pilot C from Dem-Con HZI Bioenergy, LLC.
3. The Commission modifies Pilot C such that the express geographic preferences are as follows:
 - a. RNG interconnected with CenterPoint's Minnesota distribution system;
 - b. RNG within Minnesota; and
 - c. RNG in neighboring regions.

For purposes of this program, neighboring regions would be participants injecting in an interstate pipeline system that delivers to Minnesota or a distribution system connected to an interstate pipeline that delivers to Minnesota within the states of Iowa, North Dakota, South Dakota, Iowa, Wisconsin and the upper peninsula of Michigan and participants injecting gas in the Northern interstate pipeline in Nebraska and Kansas, north of Demarc.

4. CenterPoint must collect data on dairy cow herd size for RNG purchases from dairy farms and provide that data in their annual status reports. Through its annual status reports, CenterPoint must provide an analysis that compares the farm sizes participating in Pilot C to the statewide average, and range, of herd sizes.
5. CenterPoint must specify the source of additional power, including any green tariff or power purchase agreement that it will use to procure the power, that it will use for Pilot D in a compliance filing after issuance of final Treasury regulations.
6. The Commission modifies Pilot E to require a minimum amount of dekatherms of natural gas savings of at least 136,000 dekatherms over the lifetime of the project for customers to qualify for the Pilot E Power-to-Hydrogen Archetype.

7. CenterPoint must include in its annual filings a description of how it is working with its customers to identify opportunities to work on a hydrogen project for an industrial process customer within the Pilot E Power-to-Hydrogen Archetype.
8. CenterPoint must include in its annual filings information on environmental benefits of Pilot F including, but not limited to, the review period of the annual filing, the number of customers determined to have zero leaks, the average leak rate per screened customer, the maximum leak rate for screened customers, and the minimum leak rate for screened customers.
9. The Commission modifies Pilot F to include the evaluation of both indoor piping and appliances to the extent feasible to be determined by CenterPoint in consultation with the vendor selected for the pilot.
10. As part of its annual status report, CenterPoint must provide information on the number of carbon offsets purchased by CenterPoint as part of Pilot G. Beginning with CenterPoint's second annual status report, CenterPoint must provide, to the best of its ability, the number of new trees planted by Green Cities Accord in the previous year and the average cost of those new trees.
11. The Commission approves Pilot H and directs CenterPoint to begin pilot implementation after the completion of the ECO R&D CarbinX project.
12. The Commission approves Pilot I as proposed but requires CenterPoint to file the results of its feasibility study for Pilot I in an annual report or in a separate filing in Docket No. 23-215 for Commission review and approval prior to implementation if the feasibility study indicates that the total costs will exceed plan estimates by more than ten percent or lifetime greenhouse gas reductions will be less than 90 percent of what was estimated in the approved plan. Pilot I's feasibility study results must include, but are not limited to, at least the following information:
 - a. a description of the geothermal system's characteristics (including assumed heating capacity, location, and lifespan), the type of geothermal technology to be installed, the suitability of the proposed location for the installation, the number and types of buildings to be connected, and the customers that would be served by the system;
 - b. a description of the project costs, broken down by installation, equipment, and operation and maintenance costs while taking into account any incentives, rebates, and tax credits assumed to reduce these costs; and
 - c. a description of the estimated benefits of the project, including throughput reduction, efficiency gains, load management possibilities, and customer financial benefits.
13. The Commission approves Pilot I with the requirement to develop monitoring and evaluation plans to track system performance, emissions reductions, identify potential issues, and optimize operations.

14. CenterPoint must file additional information with its first annual status report about how it will facilitate stakeholder and community engagement for Pilot I. This discussion must detail how CenterPoint will engage with potential host communities to inform decisions about the project location, as well as a description of stakeholder and community engagement CenterPoint has engaged in to date.
15. CenterPoint must issue a request for interest (RFI) to solicit feedback from communities and developers interested in installing and/or operating a networked geothermal system and include RFI responses and the corresponding sites in CenterPoint's feasibility study for Pilot I.
16. CenterPoint must provide information and updates on the RFI process and responses in annual NGIA status reports, including how CenterPoint considered opportunities to install a networked geothermal system in a low-income and/or environmental justice area and in areas of its system with upcoming pipe replacements and upgrades along with other considerations including the suitability of sites from an engineering and technological perspective and customer preferences.
17. Pilot J does not count toward the statutory 20% district energy cap unless the resulting district energy system meets the statutory definition.
18. CenterPoint must offer customers the option to include a full electrification/decarbonization scenario in the feasibility study for Pilot J and include the number of customers who choose to study a full decarbonization/electrification scenario in the annual status report filing.
19. Pilot K does not count toward the statutory 20% district energy cap unless the resulting district energy system meets the statutory definition.
20. The Commission modifies Pilot L as follows:
 - a. Pilot L must not be limited to hybrid heating systems.
 - b. CenterPoint must consider including geothermal heat pumps.
 - c. CenterPoint must collect data on how often gas backups are needed in any hybrid heat pump systems included.
21. CenterPoint must modify Pilot M to collect data on how often gas backups are needed in the subset of hybrid heat pump systems included in CenterPoint's measurement and verification plan.
22. CenterPoint must monitor the number and type of customers that enroll in Pilot M and report its findings in annual status reports. If CenterPoint finds that a disproportionately low number of participants are small businesses or are located in environmental justice areas, CenterPoint must include a discussion in its annual status report of the potential causes of lower participation by small businesses and businesses located in environmental justice areas and discuss whether program modifications are warranted to increase participation by those groups.

23. CenterPoint must report on continuous field performance monitoring, bill savings, equipment costs, and installation costs for Pilot P in its annual status reports.

Research and Development (R&D) Project Modifications

24. CenterPoint's R&D project #1, "CenterPoint Energy Minnesota Net Zero R&D Study," must include an estimation of CenterPoint's greenhouse gas emissions resulting from providing natural gas service to end-use customers in Minnesota based on the NGIA measure of lifecycle greenhouse gas emissions and a description of how the plan, as a whole, helps CenterPoint reduce greenhouse gas emissions to support the economy-wide timeline and incremental goals established by the legislature.
25. CenterPoint must propose R&D projects to the Commission in its annual status reports and receive approval to invest in any R&D projects that were not previously filed and approved as part of CenterPoint's 2023 Natural Gas Innovation Plan.

Request for Budget Flexibility

26. The Commission approves CenterPoint's request for budget flexibility with the following conditions:
 - a. Prohibit using budget flexibility to increase the budget of any pilot or pilots in such a way that there is insufficient remaining funding available to enable CenterPoint to fund other pilots up to at least 75% of their approved five-year budgets.
 - b. Require any budget increases exceeding 25 percent of the total five-year pilot budget to go through the annual review process or be filed for comment and approval in Docket No. 23-215. CenterPoint's filing must identify any avenues that could be taken to increase enrollment or improve performance of any pilots not achieving quantitative or qualitative expectations and provide a justification for why these options are not reasonable.
 - c. Require CenterPoint to describe any use of budget flexibility in annual review filings and explain why the use of budget flexibility was warranted. CenterPoint's justification should include an analysis of pilot performance that takes into account both participation levels and realized cost-effectiveness.
 - d. Prohibit any use of budget flexibility until the third year of the plan in order to provide sufficient time for pilots to reach maturity and enroll participants.
 - e. Prohibit CenterPoint from using budget flexibility in a way that leaves insufficient funding to fund the full five-year approved budgets of any pilots that are achieving plan expectations in terms of total lifecycle GHG emissions reductions at a cost equal to or less than estimated in the plan at the time that the budget flexibility is used.
 - f. Require CenterPoint to ensure the cost recovery mechanism trues up customer class allocations to match actual pilot spending.
 - g. Segment CenterPoint's exercise of budget flexibility between renewable natural gas, biogas, hydrogen produced via power-to-hydrogen, and ammonia produced via power-to-ammonia investments and all other investments and only allow exercises of budget flexibility within each segmented category. Budget flexibility can only be used to reallocate funding within pilots in the segment.

- h. Require CenterPoint to notify the Department and the Office of the Attorney General–Residential Utilities Division when it exercises budget flexibility without a modification. If no written response is received from the Department or an Assistant Attorney General in the Residential Utilities Division within 30 days, CenterPoint shall be authorized to engage in budget flexibility subject to the modified terms. If either the Department or an Assistant Attorney General in the Residential Utilities Division objects to the use of budget flexibility, CenterPoint must make a filing with the Commission to seek approval of budget flexibility in Docket No. 23-215 or may seek a modification to the pilot in question through annual review filings.
- i. Any budget flexibility shall not allow CenterPoint to exceed its approved budget for the full NGIA plan.

Cost Recovery Proposal

- 27. The Commission approves CenterPoint’s cost recovery proposal, including the requested five-year variance to recover renewable natural gas costs and the costs associated with electricity used to create hydrogen through the purchased gas adjustment (PGA).
- 28. CenterPoint must include relevant information from monthly PGA filings and annual automatic adjustment (AAA) in its innovation plan annual reports.
- 29. CenterPoint must incorporate, in its annual filing, a true-up adjustment that reconciles revenues recovered to actual costs.

Cost-Effectiveness Objectives

- 30. The Commission approves CenterPoint’s proposed cost-effectiveness objectives.
- 31. The Commission will adopt a holistic evaluation methodology for reviewing plan cost effectiveness and determining whether CenterPoint’s next innovation plan may utilize the increased incremental cost cap for the Company’s next innovation plan under Minn. Stat. § 216B.2427, subd. 3(c).
- 32. CenterPoint must file a compliance filing with updated cost-effectiveness objectives within 30 days of this order, subject to a 30-day negative check-off. If no parties raise disagreements with the updated objectives within 30 days of CenterPoint’s filing, the comment period will close and the cost-effectiveness objectives will go into effect. If any filed comments raise contested issues, the Commission will issue a notice of comment period and the matter will be brought to an agenda meeting.
- 33. The Commission modifies CenterPoint’s first cost-effectiveness objective under the “environment” category of objectives to be based on a total lifetime greenhouse gas emissions reduction goal. In its compliance filing with updated cost-effectiveness objectives, CenterPoint must propose a revised goal based on total estimated lifetime greenhouse gas emissions reductions of the plan as approved.
- 34. CenterPoint must include the following cost-effectiveness objective that supports the NGIA’s throughput goal (Minn. Stat. § 216B.2427, subd. 10) in its compliance filing updating its cost-effectiveness objectives:

The plan as a whole achieves material reductions to the overall amount of natural gas produced from geologic sources delivered to CenterPoint customers compared to the amount that would have been delivered absent CenterPoint's NGIA plan.

Annual Status Reports

35. The Commission approves CenterPoint's proposed plan for filing its annual status reports with the program year beginning on the date of this order, and annual reports submitted each year on June 1, reflecting the activity occurring in the prior calendar year.
36. CenterPoint must provide updates on IRA implementation and pilot-specific data on greenhouse gas emissions reductions in annual status report filings.
37. Within 30 days of this order, CenterPoint must propose reporting requirements for its NGIA innovation plan's annual status reports. The proposed list of reporting requirements shall include content required by the NGIA and relevant Commission Orders, and shall clearly articulate what information will be provided for each individual pilot and research and development project (including updates on progress, project results, project cost and budget impacts, and relevant updates to cost-benefit metrics using project data), and the plan in aggregate. CenterPoint may file earlier as a joint filing with relevant stakeholders in this Docket, including the Department. The Commission delegates authority to the Executive Secretary to approve the compliance filing via notice if no objections are filed within 30 days of the Company's filing.

Additionally:

- a. CenterPoint must propose updates to its list of reporting requirements when proposing new, or modified, pilots and/or research and development projects.
- b. CenterPoint must file a similar list of reporting requirements for its NGIA annual status reports with future NGIA innovation plans.
- c. The Commission delegates authority to the Executive Secretary to update the approved reporting requirements list consistent with decisions made in this and subsequent NGIA-related dockets.

Other Plan Modifications

38. CenterPoint must purchase and retire on behalf of its Minnesota customers the full environmental attributes associated with innovative fuel purchases made through its NGIA plan.
39. CenterPoint must consult with the Minnesota Department of Agriculture regarding the possibility of incentivizing more Minnesota small family agricultural operations to participate in the development and sale of RNG. With its first annual status report, CenterPoint shall report on its discussions with the Minnesota Department of Agriculture and, depending on the results of these discussions, propose an R&D project that explores incentives to encourage Minnesota small family farms to participate in RNG markets.

40. CenterPoint must prioritize the creation of high-quality jobs and registered apprenticeship opportunities for residents of communities served by the utility, Minnesota residents and local workers in the implementation of all approved pilot programs as follows:
- a. Require that the RNG producer identified in Pilot B (Dem-Con HZI Bioenergy LLC) demonstrate that the facility will maximize creation of high-quality jobs and registered apprenticeship opportunities for residents of communities served by the utility and local workers to the extent feasible (see Minn. Stat. § 216B.2422 Subd. 1(h) for definition of local workers).
 - b. Give preference to Pilot C bidders that commit to maximizing creation of high-quality jobs and registered apprenticeship opportunities for residents of communities served by the utility and local workers in construction of RNG production and associated facilities including pipelines.
 - c. Employ contractors to build Pilots D and I that commit to maximizing creation of high-quality jobs and registered apprenticeship opportunities for residents of communities served by the utility and local workers.
 - d. Encourage participants in Pilots E, F, H, J, and K-R to employ contractors that maximize creation of high-quality jobs and registered apprenticeship opportunities for residents of communities served by the utility and local workers to the extent feasible and prioritize financial support for participants that commit to do so.

Future NGIA Plans

41. In future NGIA plans, CenterPoint must define clear learning objectives and metrics for success for all proposed pilots.

This order shall become effective immediately.

BY ORDER OF THE COMMISSION



Will Seuffert
Executive Secretary



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CERTIFICATE OF SERVICE

I, Mai Choua Xiong, hereby certify that I have this day, served a true and correct copy of the following document to all persons at the addresses indicated below or on the attached list by electronic filing, electronic mail, courier, interoffice mail or by depositing the same enveloped with postage paid in the United States mail at St. Paul, Minnesota.

Minnesota Public Utilities Commission
ORDER APPROVING NATURAL GAS INNOVATION PLAN WITH
MODIFICATIONS

Docket Number **G-008/M-23-215**

Dated this 9th day of October, 2024

/s/ Mai Choua Xiong

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Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_23-215_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Daryll	Fuentes	energy@usg.com	USG Corporation	550 W Adams St Chicago, IL 60661	Electronic Service	No	OFF_SL_23-215_Official
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Edward	Garvey	garveyed@aol.com	Residence	32 Lawton St Saint Paul, MN 55102	Electronic Service	No	OFF_SL_23-215_Official
Edward	Garvey	edward.garvey@AESLconsulting.com	AESL Consulting	32 Lawton St Saint Paul, MN 55102-2617	Electronic Service	No	OFF_SL_23-215_Official
Debbie	Goettel	Debbie.Goettel@hennepinus	Partnership on Waste and Energy	2785 White Bear Ave N Ste 350 Maplewood, MN 55109	Electronic Service	No	OFF_SL_23-215_Official
Todd J.	Guerrero	todd.guerrero@kutakrock.com	Kutak Rock LLP	Suite 1750 220 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	OFF_SL_23-215_Official
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_23-215_Official
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Daryl	Maxwell	dmaxwell@hydro.mb.ca	Manitoba Hydro	360 Portage Ave FL 16 PO Box 815, Station Main Winnipeg, MB R3C 2P4 CANADA	Electronic Service	No	OFF_SL_23-215_Official
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Matthew	Melewski	matthew@nokomisenergy.com	Nokomis Energy LLC & Ole Solar LLC	2639 Nicollet Ave Ste 200 Minneapolis, MN 55408	Electronic Service	No	OFF_SL_23-215_Official
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Ana Sophia	Mifsud	amifsud@rmi.org	Rocky Mountain Institute (RMI)	N/A	Electronic Service	No	OFF_SL_23-215_Official
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Greg	Palmer	gpalmer@greatermngas.com	Greater Minnesota Gas, Inc. & Greater MN Transmission, LLC	1900 Cardinal Ln PO Box 798 Faribault, MN 55021	Electronic Service	No	OFF_SL_23-215_Official
Jessica	Palmer Denig	jessica.palmer-Denig@state.mn.us	Office of Administrative Hearings	600 Robert St N PO Box 64620 St. Paul, MN 55164	Electronic Service	No	OFF_SL_23-215_Official
Antonio	Parisi	aparisi@sacyr.com	Sacyr Environment USA LLC	3330 Washington Blvd Ste 400 Arlington, VA 22201	Electronic Service	No	OFF_SL_23-215_Official
Melissa	Partin	mpartin@mncenter.org	Minnesota Center for Environmental Advocacy	1943 Princeton Ave St Paul, MN 55105	Electronic Service	No	OFF_SL_23-215_Official
Audrey	Partridge	apartridge@mncee.org	Center for Energy and Environment	212 3rd Ave. N. Suite 560 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_23-215_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Dean	Pawlowski	dpawlowski@otpc.com	Otter Tail Power Company	PO Box 496 215 S. Cascade St. Fergus Falls, MN 565370496	Electronic Service	No	OFF_SL_23-215_Official
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J. Gregory	Porter	greg.porter@nngco.com	Northern Natural Gas Company	1111 South 103rd St Omaha, NE 68124	Electronic Service	No	OFF_SL_23-215_Official
Kevin	Pranis	kpranis@liunagro.com	Laborers' District Council of MN and ND	81 E Little Canada Road St. Paul, MN 55117	Electronic Service	No	OFF_SL_23-215_Official
Greg	Pruszinske	gpruszinske@ci.becker.mn.us	City of Becker	PO Box 250 12060 Sherburne Ave Becker, MN 55308	Electronic Service	No	OFF_SL_23-215_Official
Victoria	Reinhardt	Victoria.Reinhardt@co.ramsey.mn.us	Partnership on Waste and Energy	Ramsey County Board Office 15 W. Kellogg Blvd., Ste. 220 St. Paul, MN 55102	Electronic Service	No	OFF_SL_23-215_Official
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_23-215_Official
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206 St. Paul, MN 551011667	Electronic Service	No	OFF_SL_23-215_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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