MINNESOTA
PUBLIC UTILITIES COMMISSION

Staff Briefing Papers

Meeting Date	**December 11th, 2025**		**Agenda Item 3***
Company	**Northern States Power d/b/a Xcel Energy**		
Docket No.	**G-002/M-23-518**		
	In the Matter of Xcel Energy's Natural Gas Innovation Plan		
Issues	Should the Commission approve Xcel's compliance filing and allow it to proceed with its Sherco 5MW hydrogen electrolyzer pilot?		
Staff	Sophie Nikitas	Sophie.nikitas@state.mn.us	651-539-1062

✓ **Relevant Documents**	**Date**
Compliance Filing – Order Point 6, Xcel Energy	June 16, 2025
Notice of Negative Check-Off Period, MN Public Utilities Commission	July 24, 2025
Comments, Office of the Attorney General – Residential Utilities Division	August 15, 2025
Reply Comments, Department of Commerce – Division of Energy Resources	September 9, 2025
Reply Comments, Xcel Energy	September 9, 2025

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BACKGROUND

On May 16, 2025, the Minnesota Public Utilities Commission (Commission) approved Xcel's 2023 Natural Gas Innovation Plan with modifications.[1] Minnesota's Natural Gas Innovation Act (the NGIA) permits the state's natural gas utilities to file these voluntary innovation plans with the Commission to pilot innovative resources that will contribute to achieving the state's greenhouse gas and renewable energy goals. Xcel's approved innovation plan has a budget of $55,380,000 spread across 14 pilot projects and several research and development projects.

One of the pilots that the Commission approved with modifications was the construction of a 5MW hydrogen electrolyzer, which would blend hydrogen with natural gas to fuel an auxiliary boiler that generates steam for an industrial customer. The electrolyzer would be powered by on-site solar panels at Sherco, with the aim of reducing emissions from the existing steam generation process.[2] During the proceeding, parties expressed concern that the industrial customer could discontinue buying steam from Xcel before Xcel has fully recovered the pilot's cost, thus creating the risk of a stranded asset with the costs borne by ratepayers.[3]

When approving Xcel's Innovation Plan, the Commission therefore required Xcel to:

> *[F]ile an explanation detailing the steps it has taken and will take to mitigate the risk of a stranded asset for its Sherco 5MW pilot, and how it would propose to manage cost recovery for this asset if the industrial customer were to withdraw before Xcel had fully recovered the asset's costs.*[4]

Xcel was ordered not to proceed with this pilot program until it had received approval for this filing.[5] Xcel filed its compliance filing on June 16, 2025,[6] and the Commission filed a Notice of Negative Check-off, stating that the filing would be approved if no party objected within 60 days.[7]

During the proceeding, parties also debated whether the Company should modify its existing affiliated interest agreement with the industrial customer to protecting ratepayers from certain financial risk. The Commission did not take a specific position on these requests to modify the agreement, but required Xcel to file an affiliate interest agreement with the industrial customer

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[1] Docket No. G-002/M-23-518, *In the Matter of Xcel Energy's Natural Gas Innovation Plan*, Order Approving Natural Gas Innovation Plan with Modifications (May 16, 2025) ("Order")

[2] *Id.*, Ordering Paragraphs 1, 6, 7, 8. Additional information about the pilot on p. 7.

[3] *Id.,* p. 9

[4] *Id.*, Ordering Paragraph 6

[5] *Id.*, Ordering Paragraph 7

[6] *Id.* Compliance – Order Point 6 (June 16, 2025) ("Xcel Compliance Filing")

[7] *Id.*, Notice of Negative Check-off Period (July 24, 2025)

in a new docket if it proceeded with the pilot.[8] Xcel filed its existing affiliate interest agreement in Docket No. G-002/AI-25-259 on June 16, 2025,[9] arguing that no modifications were necessary to the original agreement based on the Commission's order. The Commission opened a Notice of Comment Period in that docket to solicit comments on whether the Commission should approve Xcel's existing affiliated interest agreement.[10]

On August 15, 2025, the Office of the Attorney General – Residential Utilities Division (OAG) filed a combined objection to the negative check-off period for Xcel's compliance filing in this instant docket, and comments on the affiliated interest agreement.[11] The OAG argued that the stranded asset risk filing in this docket is not sufficient to protect ratepayers, and recommended that the Commission not permit Xcel to proceed with its Sherco 5MW pilot until the Commission orders a modified affiliated interest agreement in Docket No. G-002/M-25-259 that includes certain ratepayer protections. As this comment constitutes an objection to the compliance filing, the Commission is required to take up the issue.

Staff notes that this proceeding is not to determine the outcome of the affiliated interest proceeding, which will be heard before this item, but rather to determine whether the Company can proceed with the pilot on the basis of its stranded asset compliance filing.

DISCUSSION

In Xcel's filing on June 16, 2025, Xcel described three potential alternative uses for the electrolyzer, should steam service to the industrial customer cease:

1) **Sherco Operations:** Xcel's first and mostly likely alternative scenario is that the electrolyzer could be used to power internal operations at Sherco. In the short term, that could mean powering the auxiliary boiler to heat buildings currently used for coal operations. Once coal units are fully retired in 2030, Xcel said that it could then heat other buildings on the Sherco campus.
2) **Future Industrial Partnership:** The Company stated that it could repurpose the electrolyzer for another industrial customer that could be situated in the nearby parcel of land in Becker, as envisioned in the City of Becker's Sherburne County Power Plant Development Master Plan. In that plan, the city and Xcel identified 2,700 acres of parcels adjacent to Sherco that could house industrial customers, who could in turn become hydrogen offtakers.
3) **Other Locations:** Xcel stated that, should there be insufficient hydrogen offtake from

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[8] *Id.,* Ordering Paragraph 8.A

[9] G-002/M-25-259, *In the Matter of Northern States Power Co. d/b/a Xcel Energy's Petition Requesting Reaffirmation of Affiliate Interest Arrangement Accounting Treatment,* Reaffirmation of Affiliate Interest Arrangement Accounting Treatment (June 16, 2025)

[10] *Id.*, Notice of Comment Period (June 27, 2025)

[11] Docket No. G-002/M-23-518, *In the Matter of Xcel Energy's Natural Gas Innovation Plan* and Docket No. G-002/AI-25-259, *In the Matter of Xcel Energy's Petition Requesting Reaffirmation of Affiliate Interest Arrangement Accounting Treatment*, OAG Comments (August 15, 2025)

> either the current industrial customer, internal Sherco operations, or alternative industrial customers, it could decommission the electrolyzer and transport it to another location, as the unit is designed to be able to be relocated.

As for cost recovery, Xcel stated that it will recover the costs of the pilot through the NGIA rider in any case:

> *In the unlikely event that there is no use for the electrolyzer at Sherco or anywhere else on the Company's system before the end of its useful life, the Company will pursue cost recovery for any outstanding plant balance that remains.*[12]

The OAG argued in its objection that these guardrails are not sufficient.[13] The OAG argued that there are too many unknowns in these alternative pathways to be assured:

1. **Sherco Operations:** The OAG argued that Xcel provided no information on how it plans to use these Sherco campus buildings after the coal units are retired, and that these buildings' heating needs are already met by the auxiliary boiler and therefore would not need additional power from an electrolyzer.
2. **Future Industrial Partnership:** The OAG noted that Xcel did not present solid evidence that industrial partners will move to the adjacent parcels of land and agree to offtake the hydrogen mix fuel, merely a plan to attract them to the area.
3. **Other Locations:** The OAG noted that the costs associated with decommissioning, transporting, and reconnecting the system are unknown and would likely be passed on to ratepayers.

Finally, the OAG noted that each alternative would necessarily increase costs to an unknown amount, and those increased costs would be passed on to ratepayers as part of the cost of the pilot's cost recovery.

The OAG thus argued that modifications to the affiliated interest agreements would be the best forum to address those concerns, making approval for Xcel to proceed with the pilot contingent upon modifying the affiliated interest agreement in the other docket to shield ratepayers from stranded asset risk**.**

The Minnesota Department of Commerce, Division of Energy Resources (Department) concurred, echoing the OAG's concerns that the compliance filing did not do enough to show how it would mitigate stranded asset risk. "[T]he Company obtaining another steam customer is not only speculative, but any gap in services is also unknown and unknowable; this risk burdens Xcel ratepayers,"[14] it commented. The Department also supported the OAG's

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[12] Xcel Compliance Filing, p. 5

[13] OAG Comments, pp. 4-5

[14] DOC Supplemental Comments, p. 4

concerns about increased costs of any of these options being recouped from ratepayers, as well as uncertainty about whether this additional infrastructure would be needed if it was used for internal Sherco campus operations.

In responding to the Company's statement that cost recovery would not change should the industrial customer cease taking steam from the Company, The Department stated:

> *In other words Xcel proposes a pilot that could be in jeopardy with the loss of a single customer, the loss of which would either greatly reduce the data created or result in the pilot incurring additional costs to continue; the alternative in this scenario is a complete loss for ratepayers. While the Company seems confident that the current steam customer will not be lost, this future is not knowable, as it is up to market whims and could change suddenly. The Company's filing incompletely addresses this risk.*

The Department therefore supported the OAG's recommendation to modify the affiliated interest agreement in 25-259 before approving the pilot.[15]

Xcel responded that, should the Commission make pilot approval contingent on further steps, it may delay the process enough to put Inflation Reduction Act (IRA) Production Tax Credit (PTCs) at risk, as the federal government has reserved them only for projects that begin construction prior to January 1, 2028.[16] The Company argued that, while Ordering Paragraph 6 required the Company to file steps to mitigate risk, the Commission did not require the Company to absorb all risk away from ratepayers in order to proceed with construction.[17] The Company reiterated the viability of its alternative potential uses for the electrolyzer, should the industrial customer cease taking steam from the Company.

The Company also rebutted the OAG's assertion that the existing use of the boiler for Sherco's internal operations means that there would be no use for an electrolyzer in the future: "Even though the auxiliary boiler can provide heat and steam without the addition of the pilot's hydrogen, the Company would run the pilot to obtain these skills and learnings."[18]

STAFF ANALYSIS

The risk of stranded asset and ratepayer protections were discussed thoroughly in the original Xcel NGIA proceeding, and so it is important for the Commission to consider whether Xcel has provided sufficient guardrails against the risk of a stranded asset before proceeding with this

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[15] OAG Letter (October 16, 2025), Cover Page

[16] Xcel Reply Comments, p. 3, referencing H.R. 1, Sec. Sec. 70511. https://www.congress.gov/bill/119th-congress/house-bill/1

[17] Xcel Reply Comments, p. 5

[18] *Id.*, p. 6

pilot.

Given that the determination on the Affiliated Interest Agreement in 25-259 will be decided before this, Decision Options 1 and 2 solely focus on whether the pilot can proceed or not based on Xcel's compliance filing and related party comments. Should the Commission decide that Xcel has sufficiently addressed how it will mitigate the stranded asset risk and how it will manage cost recovery in the event of a stranded asset, it would choose **Decision Option 1**. This would allow Xcel to proceed with construction immediately. **Decision Option 2** would halt the pilot – this is not specifically recommended by any parties given that the Department and OAG wanted approval contingent on the outcome of Docket No. G-002/M-25-259, but rather provided in the event that the Commission does not find the stranded asset risk compliance filing sufficient to allow the pilot to proceed.

DECISION OPTIONS

1. Approve Xcel's compliance filing, and allow Xcel to proceed with the pilot. *(Xcel)*

OR

2. Reject Xcel's compliance filing, and do not allow Xcel to proceed with the pilot.