

## **Reply Comments In the Matter of Xcel Energy's 2020-2040 Integrated Resource Plan**

**PUC Docket Number(s):  
E002/RP-19-368**

LIUNA Minnesota and North Dakota members take pride in using their skills to build and maintain electric systems that are among the most reliable in the nation. They are concerned not only about what the energy transition means for their jobs and careers, but also about whether the electric systems they have maintained for decades will remain reliable.

Our members are open to the possibility that the future could look very different from the past in terms of where and how electricity is generated and delivered, but they want to see the math. In their view, Xcel has shown its work in the company's 2020 Integrated Resource Plan (IRP), while proponents of competing plans have not yet done so based on our review of comments filed in this docket. We offer the following observations in response to comments submitted by stakeholders.

### **I. The Commission should prioritize reliability when evaluating Xcel's 2020 Integrated Resource Plan.**

The Minnesota Public Utilities Commission is charged by the Legislature with considering affordability, reliability, and socioeconomic and environment impacts when evaluating Integrated Resource Plans and other resource decisions.<sup>1</sup> It is up to the Commission to determine how the factors should be applied and weighed in each case in order to best meet the public interest, especially when these priorities are in tension with one another. In this matter, we believe it is essential for the Commission to give the greatest weight to reliability given the rapid pace of change, high levels of uncertainty, and growing importance of the electric sector in our economy and our strategy to fight climate change.

LIUNA members work hard for their wages, and like many Minnesotans, our members often struggle to pay their bills, especially when work is slow. Our members care deeply about affordability, as do their employers and the owners of projects that provide them with work opportunities. Our members are also very interested in the socioeconomic impacts of utility resource decisions, including impacts on local jobs and economic development. Finally, they care about the energy sector's local and global environmental impacts, which increasingly affect their jobs and families.

Recent events in Texas, however, provided a powerful reminder that reliability is the cornerstone of an electric system and a precondition for delivering other values, including affordability,

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<sup>1</sup> Minn. R. 7843.0500

socioeconomic benefits, equity, and environmental progress. As we saw in Texas, even relatively short outages can have devastating consequences.

The Federal Reserve Bank of Dallas pegged generation losses associated with Texas power outages at \$4.3 billion in value of lost load.<sup>2</sup> But even that staggering amount is just the tip of the proverbial iceberg compared to estimates of \$10 to \$20 billion in insurance claims, up to \$130 billion in overall economic losses, and more than 100 avoidable deaths.

The power outages led to widespread damage to homes and businesses, foregone economic activity, contaminated water supplies and the loss of at least 111 lives. Early estimates indicate that the freeze and outage may cost the Texas economy \$80 billion–\$130 billion in direct and indirect economic loss. These initial calculations come with significant uncertainty. Estimates of insured losses, which are easier to quantify, range from \$10 billion to \$20 billion.<sup>3</sup>

Minnesota is far better prepared to manage extreme weather events thanks to our strong regulation and planning framework. However, Texas provides a painful reminder that the costs of even a relatively brief loss of power can exceed by orders of magnitude the costs of front-end investments in reliability and redundancy. In plain language, modest excess costs associated with generation that does not always run at full capacity or remains useful a decade after it is needed are a “high-class problem” compared to the harm that can occur if Xcel comes up short at a critical moment.

Minnesota’s electric system is undergoing a fundamental and unprecedented transformation as we shift from heavy reliance on conventional and nuclear thermal power plants to heavy reliance on wind and solar backed up by a to-be-determined suite of technologies ranging from battery storage to hydrogen to carbon capture and storage that are still in development. During this period of profound change, we simply cannot take reliability for granted. Instead, a successful transition will require that we fully support innovation while simultaneously hedging those bets with proven resources until we can be certain that new technologies will deliver the high levels of reliability that we have come to expect.

Further, we know that reliability will become even more important, and potentially more difficult to deliver, as our society becomes increasingly reliant on the electric system to meet energy needs in our transportation and building sector. Widespread adoption of electric vehicles and even a partial electrification of building heating systems will place significant new burdens on the electric grid, while simultaneously making consumers more vulnerable to outages and other service problems.

The Clean Energy Organizations (“CEOs”) and Citizens Utility Board (“CUB”) propose that Xcel abandon plans to build the proposed Sherco Combined Cycle gas plant (“Sherco CC”), and bank instead on market, policy and technological developments that they assert *could* provide a path to lower-emission and lower-cost alternatives. While we would welcome such developments and are actively working to support them, we urge the Commission to be cautious

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<sup>2</sup> “Cost of Texas’ 2021 Deep Freeze Justifies Weatherization.” Dallas Federal Reserve Bank. April 15, 2021. <https://www.dallasfed.org/research/economics/2021/0415.aspx>

<sup>3</sup> Ibid.

about gambling the state's energy future on optimistic expectations about the pace of transmission build-out and deployment of reliable and cost-effective storage technologies.

As more Xcel customers switch from diversified energy sources to electric vehicles and heating, they will be more vulnerable to power outages that could leave them cold and without transportation. Communities of color and rural low-income households could be at greatest risk due to reliability problems, and both the Commission and Xcel have an obligation to ensure that no one ends up freezing to death in the dark because we failed to invest in a resilient, diversified set of energy resources.

**II. Construction and operation of the Sherco CC is integral to achieving an 80% carbon emissions reduction by 2030 and consistent with the company's goal to be carbon-free by 2050.**

Many commenters contend that Xcel's plan to build and operate the Sherco CC is inconsistent with the company's plans to reduce and eventually eliminate carbon emissions, but we believe that the opposite is true. The Sherco CC provides a reliable, firm dispatchable resource that will be needed to replace retiring coal plants and balance Xcel's rapidly growing portfolio of variable renewable resources. Without the Sherco CC, there is a risk that Xcel could be forced to extend retirement dates for coal units and miss the company 80% by 2030 climate target.

Minnesota's experience with the 2019 polar vortex shows that we need to maintain a diversified generation portfolio in order to manage extreme weather events that are becoming more frequent as our climate changes. The polar vortex saw a precipitous drop in renewable generation as temperatures fell below the levels at which even turbines designed for cold weather can operate reliably, forcing Xcel and others to idle wind energy production.<sup>4</sup> The impact of the event was felt across the Midcontinent Independent System Operator (MISO) grid, which reported a 25% loss of generation due to forced outages.<sup>5</sup>

The lesson of 2019 polar vortex, and recent events in Texas, is not that renewable energy is unreliable, as some would suggest. Instead, they remind us that a reliable electric system needs diverse sources of generation along with sufficient excess capacity to meet extreme and unexpected conditions. These events also remind us that, while integrated electric markets have significant benefits, they are not a magic solution for large-scale weather or other events that can simultaneously reduce capacity and spike demand for electricity.

The addition of the Sherco CC provides assurance that Xcel can successfully manage similar circumstances in which we experience a simultaneous spike in demand and loss of renewable or other generation without existing coal plants -- and potentially over the long term without nuclear resources. Our members and other Minnesotans need such assurances in order to be

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<sup>4</sup> "Wind turbine shutdowns during polar vortex stoke Midwest." EnergyWire. Feb. 27, 2019. <https://energynews.us/2019/02/27/wind-turbine-shutdowns-during-polar-vortex-stoke-midwest-debate/>

<sup>5</sup> Hughlett, Mike. "About 25 percent of region's energy fleet was unavailable during polar vortex." Star Tribune. Feb. 28, 2019. <https://www.startribune.com/about-25-percent-of-region-s-energy-fleet-was-unavailable-during-polar-vortex/506463292/?refresh=true>

comfortable with a plan that removes significant baseload resources. There are many scenarios that could allow Xcel to meet the company's 100% by 2050 goal, ranging early retirement to carbon capture to refueling using green hydrogen or other zero-carbon fuels, but until the technological path is clear, Sherco CC will remain an important resource option.

**III. Construction and operation of the Sherco CC presents less risk for customers than alternative proposals that bet heavily on rapid build-out of a congested transmission system and advances in as-yet-unproven storage technologies.**

Opponents of the Sherco CC, including the CEOs and CUB, have proposed alternative resource plans that would effectively replace the combined cycle plant with a portfolio of resources including solar, solar-battery hybrid projects, and expanded transmission capacity to increase flexibility. Unfortunately the Commission has no assurance that renewable alternatives will be feasible or cost-effective absent quick solutions to current transmission congestion, or that unproven storage technologies will be cost effective or reliable at the scale needed to fully replace the Sherco CC.

Limited transmission capacity is among the foremost challenges Minnesota faces in expanding our renewable energy portfolio. CapX2020, which provided a substantial buildout of our transmission capacity creating 800 miles of new high-voltage transmission lines,<sup>6</sup> was a good start but not nearly enough to meet the growing demand. Many of the CapX2020 lines are already at or near capacity.<sup>7</sup>

Not only is there limited capacity on the existing system, but integration of renewable energy sources create new complexity and challenges for grid management and transmission. In a study presented to the Minnesota Legislative Energy Commission in February 2020, MISO shared distinct challenges of integrating renewable energy into the existing system. According to MISO the complexity of integrating wind and solar into the grid rises "sharply beyond 30% renewable penetration" under existing conditions.<sup>8</sup>

Wind and solar developers are facing profound challenges in securing transmission for wind and solar due to the lack of existing transmission capacity and grid integration challenges. We have seen multiple developers withdraw requests to tie into the Midwest power grid over the last few years due to "grid congestion" and associated interconnection costs.<sup>9</sup> According to the Clean Grid Alliance "transmission congestion threatens to dramatically slow renewable energy development."<sup>10</sup> The cost for transmission upgrades have made many projects cost prohibitive.

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<sup>6</sup> Mike Hughlett, "Minnesota utilities warn that big investments needed in region's electricity grid," Star Tribune, March 5, 2020, accessed June 24, 2021: <https://www.startribune.com/utilities-warn-that-big-investments-needed-in-region-s-electricity-grid/568527232/?refresh=true>

<sup>7</sup> Ibid.

<sup>8</sup> Brian Tulloh, Jordan Bakke and Alison Archer, "The Evolving MISO Grid and Multi-State Transmission," MISO, February 3, 2020, accessed June 24, 2021: <https://www.lec.leg.mn/2020/MISO%20for%20MN%20LEC%20Feb%202020%20vf.pdf>

<sup>9</sup> Jeffrey Tomich, "Renewables 'hit a wall' in saturated Upper Midwest grid," E&E News, December 12, 2021, access June 24, 2021: <https://www.eenews.net/stories/1061787851>

<sup>10</sup> Ibid.

According to a MISO spokeswoman, Allison Bermudez, "Faced with high upgrade costs, most developers choose to drop out instead of proceeding."<sup>11</sup>

In light of these profound inconnection challenges for renewables, it is imperative that we maintain sufficient dispatchable power through the proposed license extension for the Monticello nuclear plant and the Sherco CC. These zero- and low-carbon sources can assure reliable and affordable power supplies as we work to expand the state's renewable energy portfolio.

#### **IV. Construction and operation of a combined cycle gas plant in Becker will deliver significant socioeconomic benefits and help to mitigate the impact of impending coal plant retirements.**

The Sherco CC is expected to create 400 to 500 construction jobs and additional operations jobs that will provide middle-class wages, health and retirement benefits for local families. The facility will help to mitigate the loss of 300 permanent operations and maintenance jobs and 150-200 jobs for skilled trades that perform maintenance turnarounds, not to mention downstream jobs created by the Sherco coal plant's substantial economic contributions to the region.<sup>12</sup>

The plant will also help to offset the loss of tax payments that account for three-quarters of total revenues for the City of Becker, and a seventh of Sherburne County's revenues.<sup>13</sup> These socioeconomic benefits are integral to efforts by local governments, community organizations and labor unions to mitigate the impact of impending coal plant retirements, and should be weighed heavily as the Commission considers the plant's likely impacts.

Some opponents of the Sherco CC have invoked principles of environmental justice to suggest that operation of new conventional generation could exacerbate the disproportionate pollution burden borne by many communities of color. Yet this is nothing more than a bait-and-switch because facts in these cases do not align with the environmental justice critique. Becker is no more an environmental justice community than Superior, Wisconsin, where similar arguments have been deployed. While Becker will be equipped with modern pollution control technologies in order to minimize emissions, to the degree emissions occur, those emissions would *reduce* disparities rather than exacerbating them.

#### **V. The Commission should not disregard the Minnesota Legislature's directives approving construction and operation of the Sherco CC.**

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<sup>11</sup> Jeffrey Tomich, "Renewables 'hit a wall' in saturated Upper Midwest grid," E&E News, December 12, 2019, access June 24, 2021: <https://www.eenews.net/stories/1061787851>

<sup>12</sup> CEE, *Minnesota's Power Plant Communities: An Uncertain Future*, February 2020, pg. 64 (include full transition later).

<sup>13</sup> CEE, *Minnesota's Power Plant Communities: An Uncertain Future*, February 2020, pg. 64 (include full transition later).

The CEOs contend that the Commission has no obligation to approve the Sherco CC as a component of Xcel's IRP or for purposes of cost recovery. But the argument that the legislature has merely authorized a need determination and site permit but not cost recovery or a place in an IRP is too clever by half.

Minn. Stat 645.16 makes clear that "The object of all interpretation and construction of laws is to ascertain and effectuate the intention of the legislature". The Becker legislation, by its terms, was clearly intended to authorize Xcel to build a combined cycle gas plant at the Becker site.

The legislation provides in paragraph (a) that Xcel: "may at its sole discretion, construct, own, and operate a natural gas combined cycle electric generation plant as the utility proposed to the PUC in docket number E-002/RP-15-21, or as revised by the utility and approved by the PUC in the latest resource plan filed after the effective date of this section". The Legislation goes on to state in paragraph (b) that "[r]easonable and prudently incurred costs and investments by the public utility [Xcel] may be recovered pursuant to the provisions of Minnesota Statutes, section 216B.16."

The plain language of the legislation leaves no room for the Commission to use the IRP process as a way to prohibit construction of the plant or deny recovery of the prudently incurred costs to build the plant. The Legislation is explicit on both points: (1) Xcel's discretion to build, and (2) Xcel's right to recover prudently incurred costs.

The IRP typically establishes the foundational need for a type of resource. A certificate of need is an outgrowth of an IRP that occurs when a utility proposes to build a large generating facility to meet that more generalized need identified in the IRP. In effect, the IRP serves as a general predicate for a certificate of need.

The specific Legislative authorization to build a 750 MW gas plant at a particular location eliminated the need for this IRP predicate with respect to this particular facility. Any other interpretation would eviscerate the Legislature's intent and be contrary to the overriding principle of statutory interpretation in section 645.16 that "the object of all interpretation...is to ascertain and effectuate the intention of the legislature." The legislature did not ask the Commission to consider whether it believes the Becker plant is needed or whether it has been properly sited, but instead directed the Commission to make it so.

Moreover, it is self-evident that the CEOs position would be quite different had the Minnesota Legislature explicitly directed Xcel to acquire 1,000 MW of solar or wind energy. In that case, we are confident that the CEOs would not consent to a plan in which a conventional resource was substituted for a clean energy resource explicitly approved by the legislature.

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Respectfully Submitted,  
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