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April 30, 2024

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101

**RE: In the Matter of Xcel Energy's 2023 Integrated Distribution Plan Docket No. E002/M-23-452**

Dear Mr. Seuffert:

Following the filing of Fresh Energy's Reply comments in Docket No. E002/M-23-452, the U.S. Department of Energy (DOE) published a report that substantiates the recommendation of Fresh Energy and other parties that the Commission require Xcel to reconsider Volt/Var Optimization (VVO) for Xcel's Minnesota service area. Fresh Energy appreciates the opportunity to file this letter as a brief supplement to our reply comments.

On April 16, 2024, the DOE released its *Innovative Grid Deployment Liftoff Report*<sup>1</sup>, which identifies "pathways to accelerate the near-term (3-5 years) deployment of key commercially available but underutilized advanced grid technologies and applications on existing ... transmission and distribution systems." The DOE developed the report in response to the "need for greater deployment of available solutions that can quickly respond to accelerating grid pressures, including the need to cost-effectively expand transmission and distribution capacity to support demand growth, enhance system reliability and resilience, and support integration of utility-scale and distributed clean energy resources." These same grid pressures are among the primary concerns addressed in Xcel's IDP and in stakeholder comments.

The DOE report includes VVO as an advanced grid solution that is underutilized today. The DOE explains that VVO enables integrated optimization of voltage and reactive power levels across the distribution system, which reduces power losses while increasing energy efficiency. The DOE's analysis assumes that VVO is economically viable in 70% of use cases, and energy savings from

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<sup>1</sup> Available at [https://liftoff.energy.gov/wp-content/uploads/2024/04/Liftoff\\_Innovative-Grid-Deployment\\_Final\\_4.15.pdf](https://liftoff.energy.gov/wp-content/uploads/2024/04/Liftoff_Innovative-Grid-Deployment_Final_4.15.pdf)

VVO (i.e., relief to transmission and distribution capacity) are at a minimum of 1%, average of 3.7%, and maximum of 6.4%.<sup>2</sup> While increasing system capacity, VVO can also enhance energy justice and equity for communities today by delivering energy savings. The DOE report further states that interest and investment in VVO are increasing as utilities now view it as a solution to manage DER impact through reactive power management capabilities.<sup>3</sup>

Fresh Energy agrees with the DOE's statement that "Grid operators and regulators should consider a new growth-oriented and proactive grid investment strategy to capture the value of these advanced technologies to meet customer needs within a changing energy future."<sup>4</sup> **We reiterate our recommendation that the Commission direct Xcel to re-evaluate VVO for its Minnesota service area, identify feeders where VVO is most cost-effective, consider the potential for targeted VVO deployment to these areas and/or in under-resourced communities, and report on its updated evaluation within 6 months of the Commission's order in this proceeding.**

Fresh Energy appreciates the opportunity to file this letter to supplement our reply comments and the record on VVO in this proceeding. The recommendation from DOE that grid operators and regulators consider VVO to help to ameliorate growing pressures on the grid supports the recommendation made by Fresh Energy and several other parties that VVO has the potential to benefit Minnesota and should be reevaluated.

Respectfully submitted,

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<sup>2</sup> Department of Energy, *Pathways to Commercial Liftoff: Innovative Grid Deployment*, p. 83.

<sup>3</sup> *Id.*, p. 33, footnote 45.

<sup>4</sup> *Id.*, p. 3.