

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

Dan Lipschultz	Commissioner
Matt Schuerger	Commissioner
Katie Sieben	Commissioner
John Tuma	Commissioner

February 15, 2019

**Contracts for Provision of Electric Service
to Google's Minnesota Data Center Project**

Docket No. E002/M-19-39

**INITIAL COMMENTS OF FRESH ENERGY IN RESPONSE TO THE
COMMISSION'S JANUARY 25, 2019 NOTICE**

Fresh Energy respectfully submits comments in response to the Commission's January 25, 2019 Notice of Comment Period regarding Xcel Energy's ("Xcel") petition for approval of electric service contracts to Google's Minnesota data center project. Fresh Energy supports approval of the petition as an innovative approach to economic development in a transitioning plant community that will be served with new renewable energy and carbon-free capacity on Xcel's system.

The Petition is in the Public Interest

Fresh Energy recommends the Commission approve the petition as doing so is in the public interest. In addition to the economic development and plant community benefits, the petition is in the public interest for the following key reasons:

- The electricity needs of the data center are new, incremental loads that will be served on an energy basis by new wind projects in Xcel's system. In our view, this is a best practice for customers wishing to be served by 100% renewable electricity.
- The petition includes that if load grows to a certain amount in the future, that Xcel will work with Google to supply 100% carbon-free capacity resources. This "clean capacity plan" is a new approach, at least in Minnesota, that could make the project even more beneficial to Xcel's customers and towards meeting

Minnesota and the Company's carbon goals. We look forward to working with Xcel and Google on the design of the plan.

- While we have not had access to the pricing in the ESA, generally, it is reasonable that new, large, economic development projects with substantial loads seeking 100% renewable electricity are able to access savings from those low-cost resources because in these somewhat unique circumstances, the overall project, including the savings to the customer, can be achieved while providing net benefits to Xcel's customers overall.¹

Additional Considerations

In addition to our support based on the significant public benefit from this petition, we note two additional considerations.

First, we ask the Commission to instruct Xcel to work with interested stakeholders to expand on the opportunity exemplified by this project. The petition explicitly states that the ESA is non-discriminatory as it follows the Company's Competitive Response Rider ("CRR").

The ESA provides that the data center will take service under General TOD rates subject to the rate revision under the Company's CRR Tariff and the CRR Agreement. This rate is not discriminatory because it is available to any other customer meeting the requirements of this tariff. Under the terms of the CRR Tariff, an existing customer must have a minimum load of 2 MW and must be subject to effective competition in that they are able to locate or expand their facilities out-of-state. For new customers, this means having a minimum initial load of 10 MW with the ability to grow to 75 MW of load within 5 years and be subject to the same effective competition as existing customers.²

Moreover, Xcel states that it will work with other similar customers and projects on specific renewable sourcing. "While the ESA contains a customer-specific renewable

¹ Xcel states that "the ESA will not harm Xcel Energy's existing retail customers. The ESA enables a new large load addition to the NSP System for a minimum of ten years. This additional load, at the negotiated rate, provides benefits to Xcel Energy ratepayers by allowing the fixed cost of the system to be spread more widely." While we do not have access to the pricing in the ESA to confirm this statement, the circumstances of the project we would expect it to be valid. Xcel, *Petition for Approval of Electric Service Contracts to Google's Minnesota Data Center Project*, January 10, 2019 (hereinafter "Petition") at 29.

² Xcel, *Petition* at 30.

energy sourcing plan, Xcel Energy will offer similar sourcing for other large, high load factor customers that commit to bringing new or expanded load to the system of similar size.”³

We appreciate that the competitive rate and renewable options in this petition are available in some respects to other economic development projects. But there is an opportunity to update these offerings in a way that could expand their availability and the opportunity for similar public benefit. Specifically, by expanding the scope of a similar offering to large, new loads that are both 100% renewable and all-electric. This could be accomplished by creating an offering with terms and conditions for the load and cost guardrails that are similar to those in the CRR, but substituting the requirement that the customer is “subject to effective competition” with a requirement that the customer commit to an all-electric development powered by clean energy.

The rationale behind this offering is that it would expand the opportunity for customers to “do well by doing good” in that it would drive the maximum amount of GHG reduction in the development’s energy use and offer the customer an opportunity to reduce energy costs while benefiting Xcel’s system through expanded, flexible load. Furthermore, the opportunity for a fair and reasonable electric service rate reduction would enhance the cost-effectiveness of new electric space and water heating technologies and/or the energy efficiency measures that enable them.

For these reasons, we ask the Commission to instruct Xcel to work with interested stakeholders to expand on the opportunity exemplified by this project through the development of an offering based on the offering in this petition, but expanded to customers that commit to all-electric development. Procedurally, this could be accomplished either through a stand-alone filing or in Xcel’s next rate case.

Finally, we note that the petition includes that natural gas service for space heating is available for the data center.⁴ Fresh Energy has requested that Google investigate whether its office space heating can be served instead by electric options, including utilizing the waste-heat from the data center through air-source heat pumps. We have

³ *Id.*

⁴ *Petition* at 27 (“The Company intends to provide the data center with natural gas service for heating under the Company’s existing natural gas retail tariff; thus, no separate Commission approvals are necessary for the provision of this service.”).

provided technical materials on the subject^{5,6} and look forward to working with Google on potential solutions^{7,8,9} that would allow the project's physical energy use to be 100% carbon free and more cost-effective than extending natural gas service to the property.

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⁵ M. Deymi-Dashtebayaz, S. Valipour-Namanlo, "Thermoeconomic and Environmental Feasibility of Waste Heat Recovery of a Data Center Using Air Source Heat Pump," *Journal of Cleaner Production*, 2019, doi: 10.1016/j.jclepro.2019.02.061.

⁶ M. Wahlroos, M. Pärssinen, J. Manner, S. Syri, "Utilizing data center waste heat in district heating – Impacts on energy efficiency and prospects for low-temperature district heating networks," *Energy*, 2017, doi: 10.1016/j.energy.2017.08.078.

⁷ Data Center Knowledge. *How to Reuse Waste Heat from Data Centers Intelligently*. May 10, 2016. [Link](#)

⁸ Data Center Frontier. *Using Servers to Heat Homes: Facebook Embraces Heat Recycling*. September 5, 2017. [Link](#)

⁹ Data Center Knowledge. *Amazon to Recycle Westin Data Center Heat in Seattle Offices*. September 17, 2014. [Link](#)