

Staff Briefing Papers

Meeting Date May 14, 2019 Agenda Item **1

Company Xcel Energy (Xcel or the Company)

Docket No. **E002/M-19-39, E002/M-19-60**

In the Matter of the Petition by Northern States Power Company, d.b.a. Xcel Energy, for Approval of Contracts and Ratemaking Treatment for Provision of Electric Service to Google's Data Center Project

- Issues
1. Should the Commission approve the Electric Service Agreement, Competitive Rate Response Rider Agreement, and Interconnection Agreement?
 2. Should the Commission approve Xcel's requested ratemaking treatments and amendments to the CRR Tariff?
 3. Should the Commission approve Xcel's renewable sourcing plan?

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Relevant Documents

Date

Xcel Energy, *Petition (TS & HCTS)*

January 10, 2019

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.



Relevant Documents

Date

City of Minneapolis, *Comments*

February 13, 2019

Fresh Energy, *Comments*

February 15, 2019

Department of Commerce, *Comments (TS & HCTS)*

February 15, 2019

City of Becker, *Comments*

February 15, 2019

Sherburne County, *Comments*

February 15, 2019

Xcel Energy, *Reply Comments (TS & HCTS)*

March 4, 2019

Department of Commerce, *Reply Comments*

March 11, 2019

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I. Statement of the Issues

Should the Commission approve the ESA, CRR Agreement, and IA (collectively, Agreements)?

Should the Commission approve Xcel's requested ratemaking treatment and amendments to the CRR Tariff?

Should the Commission approve Xcel's renewable sourcing plan?

II. Petition: Part One – Summary, Input-Output Analyses, Relevant Statutes, TOD Rates

This section of the briefing papers will provide a brief summary of the public version of Xcel's Petition, before taking a deeper dive into the details of the three proposed Agreements in Part Two. First, staff notes that, while Docket No. 19-39 is the primary docket for this proceeding (and is the only docket to include all party and public comments), Docket No. 19-60 was opened as a place for Xcel to file "highly confidential trade secret" (HCTS) information. (Only government agencies have access to HCTS information.) However, all of the content within these briefing papers is drawn from the public record.

A. Subsidiaries and Affiliates

The executed Agreements are between Northern States Power Company-Minnesota (NSPM) and Honeycrisp Power LLC (Honeycrisp), a Delaware limited liability company. Honeycrisp is an affiliate of Google LLC (Google), and Google is a wholly-owned subsidiary of Alphabet Inc.

For these briefing papers, staff uses Xcel or the Company in place of NSPM and Google in place of Honeycrisp.

B. Summary of the Petition

Xcel's Petition is for the approval of several agreements that will enable it to provide electric service to a proposed new data center to be owned and operated by an affiliate of Google in Becker, Minnesota. Xcel estimates "at least \$600 million in capital investment"¹ would be generated if the project moves forward, which, the Company claims, will make the data center "one of the largest private development projects in state history."² Nearly 2,000 jobs in Sherburne County, 1,300 additional statewide jobs, and 50 new permanent jobs could be created as a result, according to a study conducted by the Minnesota Department of Employment and Economic Development (DEED).³ Additionally, by attracting a new large customer like Google to its service territory, Xcel believes all of its customers can benefit, as this creates an opportunity to meet the Company's revenue requirements without raising rates.

¹ Petition, at 1.

² Petition, at 1.

³ Petition, at 1.

Xcel explained that it has been working in partnership with DEED, Sherburne County, the City of Becker, and several other stakeholders for approximately two years to help attract the data center to Minnesota. The data center will be located on property adjacent to the Company's Sherco coal plants, and Xcel listed several benefits of this site. First, for Xcel's employees, the Company stated that the project will help it move forward with a transition from coal-fired plant closure to job retraining and other assistance. Second, Xcel can use its existing infrastructure to bring new commercial and development opportunities to the Becker area. Third, Xcel has been working closely with Liberty Paper, which is one of its largest customers, to help keep Liberty Paper a mainstay in the City of Becker and Sherburne County communities. Fourth, Xcel has been working with another of its existing customers, Northern Metals Recycling, to relocate its operations from Minneapolis to a parcel of land near the Sherco plant.

Xcel and Google have negotiated a rate, for an initial ten-year term, that Xcel believes is necessary to attract Google to its service territory. (Google retains the option to terminate the Agreements, but it must compensate Xcel for doing so.⁴) Also, as part of the negotiations, Google required that its load be served with carbon-free capacity resources. Therefore, Xcel has agreed to procure new, incremental renewable energy resources—which Xcel refers to as its “renewable sourcing plan”—in an amount that matches the data center's annual energy usage. At present, Xcel's renewable sourcing plan includes an initial, incremental 300 MW of wind generation, with specific projects filed as separate petitions in other dockets;⁵ it is possible Xcel could seek additional carbon-free capacity depending on the data center's load growth over the ten-year term.⁶

The general structure of the proposed electric rate is based on Xcel's Time-of-Day (TOD) Tariff. However, because the parties have negotiated a competitive rate, the TOD components are adjusted from Xcel's General TOD Tariff. Xcel's calculation of the competitive rate is shown on pages 25-26 of the HCTS Petition.⁷

In order for Xcel to provide Google a competitive rate, Minn. Stat. § 216B.162 requires Xcel to demonstrate that projected revenues from the data center exceed the incremental costs of providing service. This “incremental cost analysis” is discussed in several areas of the Petition, and Attachment E shows the calculation of incremental costs, revenues, and the rate forecast.⁸

Xcel will use Renewable Energy Credits (RECs) generated from the renewable sourcing plan to meet Google's 100% carbon-free capacity requirement, and these RECs can be retired in amounts equal to the Becker data center's expected annual energy use. However, to be clear, the 300 MW of incremental wind will be *NSP System resources*; therefore, Xcel has and will request cost recovery for these two PPAs through the Company's Fuel Clause Rider. Xcel

⁴ See, for example, Petition at 27.

⁵ Xcel filed a petition for one project that will comprise the renewable sourcing plan, Dakota Range III, in Docket No. 18-765. The second wind PPA petition has not yet been filed.

⁶ Petition, at 24.

⁷ Docket No. 19-60.

⁸ Docket No. 19-60, Part 3 of 5, Attachment E.

argued this is reasonable because the pricing for projects in the renewable sourcing plan will be lower than the average pricing of the fuel clause (\$25.60/MWh), which means the projects will result in lower overall fuel costs for all customers regardless of the usage of (and share of produced RECs allocated to) the proposed data center.⁹

Xcel ran the Strategist capacity expansion model to evaluate eight scenarios, ranging from various load growth rates to different compositions of wind and solar for the sourcing plan, to show the benefits and costs associated with adding these renewable resources and the data center itself. On pages 33-37 of the Petition, Xcel discusses how these scenarios were constructed. The design of the scenarios is important and informative to understanding how the project's load might materialize and how adding the Google data center to Xcel's system is unique; its expansion is uncertain, and load growth will occur incrementally over time, so Xcel needed to create different assumptions in Strategist to account for this uncertainty.

To explain further, what is noteworthy is the number of scenarios focused on load growth. For instance, three scenarios assumed "straight line load growth," but with different initial loads, and one assumed "sporadic but substantial" load growth. This was done because Xcel expects the data center will be considerably larger by the end of the ten-year term, but it is not known how large the data center will be initially or eventually, nor how rapidly it might expand. These are important variables, however, since the renewable sourcing plan is designed to match the data center's annual energy consumption. On pages 12-14 of the Petition, Xcel explained in general terms what data center load is and how the load expands over time:

[D]ata centers are equipped with a large number of computer servers that operate 24 hours per day, 7 days per week. Each server is a high-performance computer, with memory, storage space, a processor or processors and input/output capability, and often stacked in racks placed in rows within a large warehouse-sized building¹⁰ ... Due to the constant demand for their services, Google data centers are required to operate constantly without interruption and require highly reliable electric power service ... It is not uncommon for a Google data center to grow over time through the later addition of one or more facilities.¹¹

Even though the load growth of the data center is uncertain, since the data center will be located at the Sherco site, there is at least plenty of land to accommodate additional servers. The parties signed an agreement providing Google an exclusive option to purchase a 315-acre parcel of land at the Sherco site, which, according to Xcel, "certainly has room for more than one facility," although "expansion depends on many factors."¹²

Because the load growth of the data center is incremental, the initial, 300 MW renewable sourcing plan is not intended to match the data center's demand in the first year of its

⁹ Petition, at 32.

¹⁰ Petition, at 12.

¹¹ Petition, at 14.

¹² Petition, at 15.

operation. Instead, it matches the expected size of the data center at the back end of the term, until another resource could be needed in year 8 or 9. According to Xcel, it is advantageous to procure the wind up front “to allow for future load growth as the data center scales” and because early acquisition can “take advantage of currently-attractive wind prices and [Production Tax Credits].”¹³ Article V of the electric service agreement addresses the treatment of RECs and Xcel’s flexibility in meeting its obligations for ensuring carbon-free sourcing. Xcel’s REC balance will inform if or when the Company might need to acquire additional renewable energy resources. (Staff will discuss REC accounting later in the briefing papers.)

Regardless of the size, and despite the possibility that there might be more RECs than needed in the early years of the ten-year term, Xcel expects the data center and its sourcing plan will provide net benefits to all of its customers. On page 5 of the Petition, for instance, Xcel states that even under the low load growth scenario the data center will have a net benefit, but as the load continues to grow, customers will realize even more savings.¹⁴ Tables 6 and 7 on page 41 of the Petition show the relationship between total load and incremental costs (the estimates are HCTS information).¹⁵

In summary, Xcel asks that the Commission approve three separate contracts it has signed with Google affiliates: (1) the retail electric service agreement (ESA), which includes the renewable sourcing plan; (2) the Competitive Rate Response Rider Agreement (CRR Agreement), which outlines the negotiated rate and its related parts; and (3) the Interconnection Agreement (IA), which identifies the necessary electrical equipment upgrades, the timing for construction of these upgrades, and the party responsible for the costs of the upgrades.

The table below summarizes the main components of each contract (the ESA, the CRR Agreement, and the IA) and the issues that will be discussed in Part Two the briefing papers:

Contract	Components
ESA	<ol style="list-style-type: none"> Standard of Review <ul style="list-style-type: none"> No party negatively affected Rate is not unduly discriminatory Renewable Sourcing Plan
CRR	<ol style="list-style-type: none"> CRR Rate Incremental Cost Analysis CRR Tariff Modifications (for new customers)
IA	<ul style="list-style-type: none"> Ratemaking treatment of electric upgrade costs Waiver of Tariff provisions

¹³ Petition, at 24.

¹⁴ Petition, at 5.

¹⁵ Petition, at 41.

As a final note, there are several attachments to Xcel's Petition, which the Company organized as follows:

- Attachment A: Oxford Economics, Google Data Centers Economic Impact and Community Benefit
- Attachment B: Miscellaneous Filing Requirements
- Attachment C: Minnesota Department of Employment and Economic Development, IMPLAN Economic Impact Analysis
- Attachment D: Retail Electric Service Agreement and Amendment
- Attachment E: Incremental Cost Analysis
- Attachment F: Renewable Sourcing Plan Modeling
- Attachment G: Competitive Rate Rider Agreement and Amendment
- Attachment H: Proposed CRR Tariff amendments (clean and redlined)
- Attachment I: Google's Letter regarding being subject to Effective Competition
- Attachment J: Interconnection Agreement for Retail Electric Service at Transmission Voltage

C. DEED's "IMPLAN" Economic Analysis

"IMPLAN" is a commonly-used input-output model that was originally developed for the U.S. Forest Service to study the local economic effects of land management strategies.¹⁶ Several versions later, IMPLAN is able to assess the economic effects of various projects in counties, states, and regions, by including them into one study area or examining them separately. In this case, IMPLAN was used to estimate both county and statewide economic impacts from the data center on Sherburne County and Minnesota, respectively.

¹⁶ The current IMPLAN input-output database and model is maintained and sold by MIG, Inc. (Minnesota IMPLAN Group).

DEED's IMPLAN analysis studied three types of economic activity: (1) direct, (2) indirect, and (3) induced effects of the proposed data center, which DEED summarized as follows:

The total economic impact of the economic activity is the sum of three effects: the direct effect (the change in activity that stimulates other activity, in this case construction or operations phases of the proposed data center), the indirect effect (resulting from industries purchasing from other industries due to increased demand) and induced effects (resulting from the expenditure of new household income generated by the direct and indirect effects).¹⁷

DEED developed its study, in part, by basing some of its assumptions (i.e. inputs) on similar data center campuses around the country. One set of inputs, for instance, assumed \$250 million in data center construction activity, with a 2019 completion date.¹⁸ A different set of inputs guided the operational phase; for example, DEED assumed 50 new jobs in data processing, hosting, and related services, which were estimated to pay an average of \$80,000 annually, with 2020 as the first year of operations.

Slides from the DEED analysis are included as Attachment C of the Petition, and staff provides a few of those slides from Attachment C below.¹⁹ According to the results of the Sherburne County-only outputs, for example, the data center is estimated to create 2,642 jobs and generate about \$186 million in GDP for Sherburne County during the construction phase:

Construction Phase – Sherburne County

- **Outputs—Sherburne County Only**
 - In total, economic activity associated with these construction expenditures in 2019 includes:
 - \$186.1 million in gross domestic product (GDP, which corresponds to the size of the county economy)
 - \$140.9 million in labor income
 - 2,642 job-years
 - All of these impacts are considered in the model as temporary, one-time impacts.

Table 1: Sherburne County Construction Phase Impacts (in nominal 2019 dollars)

Impact Type	GDP (\$millions)	Income (\$millions)	Jobs
Direct Effect	\$140.0	\$115.2	1,931
Indirect Effect	16.1	10.7	227
Induced Effect	30.0	15.1	484
Total Effect	186.1	140.9	2,642

Note: Numbers may not sum due to rounding.
Source: Analysis conducted with IMPLAN Online. For more information, see the "About Economic Impact" section.
Prepared by: Economic Analysis, Minnesota Department of Employment and Economic Development.

Once operational (in 2020), the data center is expected to create an additional 110 permanent jobs, resulting in a \$6.1 million increase in labor income and \$7.6 million increase to GDP:

¹⁷ Petition, Attachment C, at 15 of 15.

¹⁸ Petition, Attachment C, at 5 of 15.

¹⁹ Attachment C is not the DEED report, but rather an October 17, 2018 presentation of the report.

Operational Phase – Sherburne County

• Outputs—Sherburne County Only

Table 3: Sherburne County Operations Phase Impacts (in nominal 2020 dollars)

Impact Type	GDP (\$millions)	Income (\$millions)	Jobs
Direct Effect	\$4.4	\$4.2	50
Indirect Effect	1.8	1.2	39
Induced Effect	1.3	0.7	21
Total Effect	7.6	6.1	110

Note: Numbers may not sum due to rounding.

Source: Analysis conducted with IMPLAN Online. For more information, see the "About Economic Impact" section.

Prepared by: Economic Analysis, Minnesota Department of Employment and Economic Development.

According to the statewide outputs, total economic activity created by these new jobs includes a \$14.4 million impact to GDP, a \$10.5 million increase in labor income, and about 163 jobs created. These impacts are expected to persist as long as the direct jobs persist:

Operational Phase – Statewide

• Outputs—Statewide

Table 4: Statewide Operations Phase Impacts (in nominal 2020 dollars)

Impact Type	GDP (\$millions)	Income (\$millions)	Jobs
Direct Effect	\$4.6	\$4.3	50
Indirect Effect	5.6	3.7	61.0
Induced Effect	4.2	2.5	51.7
Total Effect	14.4	10.5	162.7

Note: Numbers may not sum due to rounding.

Source: Analysis conducted with IMPLAN Online. For more information, see the "About Economic Impact" section.

Prepared by: Economic Analysis, Minnesota Department of Employment and Economic Development.

D. Oxford Economics Study

Oxford Economics (Oxford) conducted a study calculating the national- and state-level impacts of six Google data center campuses across the country (not including the proposed data center in Becker), also using the IMPLAN input-output model. Three categories of economic activity were examined—operations, construction, and renewable—and these impacts were aggregated to estimate total economic activity.

Nationally, Google directly employs 1,900 workers at its six data centers. In addition, in an average year, there are more than 1,100 construction workers engaged on site working to expand or upgrade the facilities on the six campuses combined.

Collectively, Google's data centers have created more than 3,400 indirect jobs, and these jobs induce other economic activity: When workers employed on data center campuses spend their wages in the broader economy, for instance, other jobs are created. Oxford calculated that the data center campuses have generated 4,700 additional, induced jobs.

As shown in Figure 2 of the Oxford study, the total direct, indirect, and induced job impacts from Google's six data centers have resulted in more than 11,000 jobs nationally:

FIGURE 2: Supporting 11,000 Jobs Nationwide

	Direct	Indirect	Induced	Total
Operations	1,900	2,620	3,510	8,030
Construction	1,140	600	950	2,690
Renewable	70	210	240	520
Total	3,110	3,430	4,700	11,240

Source: Oxford Economics, IMPLAN

"Multipliers" are a common measurement of increases or changes to other economic variables, like jobs and GDP. A multiplier effect occurs when a change in a particular input creates a larger change in output. By Oxford's calculations, at a national level, Google data centers have a jobs multiplier of 5.9 (that is, for each job created at Google by Google, about 6 more jobs are created outside Google) and a GDP multiplier of 6.6 (that is, for each dollar of "product" generated by Google, roughly an additional \$7 is created nationally). According to Oxford, both of these multipliers are high relative to other industries. Oxford explained that the GDP multiplier, for example, is relatively high because "wages at the data centers are high and the supply chain [i.e. indirect impact] is large."²⁰

At the state-level, Oxford found that "Google data centers significantly contribute to the growth of jobs, income, and economic activity in each state where a campus is located."²¹ Figure 7 of the Oxford study shows state-level economic impacts:²²

²⁰ Attachment A, at 11.

²¹ Attachment A, at 15.

²² Note that the state-level jobs multiplier is lower than the national jobs multiplier. Oxford explained, "State jobs multipliers are almost always smaller than national jobs multipliers because, by definition, the state jobs multipliers capture only the economic activity associated with that state, whereas the national jobs multiplier captures all the economic activity occurring within the entire country."

FIGURE 7: Key State-Level Economic Impact Results

State	(millions)		Jobs (Direct)	Jobs (Total)	Jobs Multiplier
	GDP	Income			
Georgia	\$121	\$80	250	1,147	4.6
Iowa	\$189	\$111	400	1,743	4.4
North Carolina	\$103	\$61	250	1,024	4.1
Oklahoma	\$203	\$99	400	1,598	4.0
Oregon	\$67	\$46	200	696	3.5
South Carolina	\$112	\$72	400	1,335	3.3

Source: Oxford Economics, IMPLAN

Finally, Google has made long-term contractual commitments that have resulted in \$2.1 billion of investment in the construction of eight new renewable energy facilities. Construction of these eight projects created an estimated 2,878 construction jobs (which are one-time, temporary jobs). Moreover, according to Google, 70 full-time workers are estimated to be engaged in operation and maintenance.²³

E. Relevant Statutes

There are several relevant statutes discussed in Xcel's Petition and at even greater length in the Department's initial comments. However, for this section, staff will discuss only three: the competitive rate statute, the electric service agreements statute, and the reasonable rate statute. Staff includes only these three because Xcel requests Commission approval of its contracts pursuant to these particular statutes. (Other statutes, such as Minn. Stat. § 216C.05, which summarizes the state's overall energy policy goals, are mentioned in the record, but staff does not discuss them in this section.)

1. Minn. Stat. § 216B.162 – Competitive Rate for Electric Utility

The CRR Agreement provides the terms for the competitive rate negotiated between the Company and Google under Minn. Stat. § 216B.162 ("the competitive rate statute"). According to Xcel, since Google has the opportunity to locate its data center in other states and countries, and due to the aforementioned benefits associated with a data center, Xcel argued a competitive rate is both reasonable and prudent in this instance.²⁴

In addition, Xcel argued the competitive rate is not only allowed but encouraged under the competitive rate statute:

The Minnesota legislature has long recognized the importance of offering negotiated electric rates to attract, retain, and expand load. Under Minnesota

²³ Attachment A, at 23.

²⁴ Petition, at 38.

Statutes section 216B.162, a public utility may develop a special rate for new or existing large customers that have the ability to locate or expand facilities in other states and service territories. The Company's current CRR Tariff was developed pursuant to this statute.^{25,26}

Under Minn. Stat. § 216B.162, subd. 2, the Commission may approve a competitive rate schedule if (1) the provision of service to a customer or class of customers is subject to "effective competition" and (2) the customer requesting electric service has a connected load of at least 2 MW.

Xcel argued that the data center clearly meets both the effective competition and size requirement conditions of the competitive rate statute. This is because, as noted, Google had the ability to select numerous other sites to locate its next data center, so there is effective competition. And since the data center's initial load is expected to be at least 10 MW, the project also meets the required size threshold.

Minn. Stat. § 216B.162, subd. 4 sets the "[r]ates and terms of competitive rate schedule." Among these terms, a competitive rate must be able to:

recover at least the **incremental cost of providing the service**, including the cost of additional capacity that is to be added while the rate is in effect and any applicable on-peak or off-peak differential.²⁷ (*Emphasis added by staff.*)

As shown most thoroughly in Attachment E, and discussed throughout the Petition (see, for example, pages 39-41 of the Petition), Xcel's incremental cost analysis shows that the projected revenues from Google exceed the incremental costs of providing service to the data center.

Minn. Stat. § 216B.162, subd. 7(b) provides several criteria the Commission must use to determine if the CRR Agreement is in the public interest. Later in the briefing papers, staff will discuss all of the applicable statutory criteria and Xcel's responses to how it complies with each.

2. Minn. Stat. § 216B.05 – Filing Schedules, Rules, and Service Agreements

The Commission may approve the proposed agreements pursuant to Minn. Stat. § 216B.05, subd. 2a ("Electric Service Contracts"), which states:

A contract for electric service entered into between a public utility and one of its customers, in which the public utility and the customer agree to customer-specific rates, terms, or service conditions not already contained in the approved schedules, tariffs, or rules of the utility, must be filed for approval by the

²⁵ Petition, at 39.

²⁶ *In the Matter of the Application of N. States Power Co. for Auth. to Increase Elec. Rates for Elec. Serv. in the State of Minn.*, Docket No. E002/GR-12-961, FINDINGS OF FACT, CONCLUSIONS, AND ORDER at 12 (Sept. 3, 2013).

²⁷ Minn. Stat. § 216B.1612, subd. 4(1).

commission pursuant to the commission's rules of practice. Contracts between public utilities and customers that are necessitated by specific statutes in this chapter must be filed for approval under those statutes and any rules adopted by the commission pursuant to those statutes.

Xcel seeks Commission approval of the ESA and the IA pursuant to Minn. Stat. § 216B.05. Of note, while Xcel seeks approval of the CRR Agreement pursuant to the requirements of the competitive rate statute, Xcel argued the Commission could also approve the CRR Agreement under Minn. Stat. § 216B.05, subd. 2a. Xcel explained:

If, for whatever reason, the Commission believes that the CRR Agreement does not meet the requirements of the CRR statute, the Commission has authority to approve the proposed agreement pursuant to Minn. Stat. § 216B.05, subd. 2a. This statute allows the Commission the ability to approve contracts that contain customer-specific rates not already included in the approved tariff so long as such rates are not unreasonably prejudicial, unreasonably preferential, or discriminatory.²⁸

Minn. Stat. § 216B.05 requires Commission approval of agreements of customer-specific rates, and Xcel cited the Commission's Order approving the proposed ESA between Minnesota Power (MP) and Magnetation, LLC as a guide for the Commission's "standard of review."²⁹ Briefly, Xcel noted the Commission has established that the standard of review are that (1) no party should be worse off by a proposed ESA, and (2) the rates shall be non-discriminatory.

3. Minn. Stat. § 216B.03 – Reasonable Rate

In addition to meeting the criteria of Minn. Stat. § 216B.162, a competitive rate must also meet the conditions of Minn. Stat. § 216B.03 ("Reasonable Rate"), which states:

Every rate made, demanded, or received by any public utility, or by any two or more public utilities jointly, shall be just and reasonable. Rates shall not be unreasonably preferential, unreasonably prejudicial, or discriminatory ...³⁰

On page 47 of its Petition, Xcel explained how the rate offered to Google meets the criteria required by Minn. Stat. § 216B.03:

The rate offered to Google is not unreasonably preferential or discriminatory because it is available to other customers willing to make similar commitments to expand or add new load to the system. The rate offered to Google is also not

²⁸ Petition, at 47.

²⁹ *In the Matter of Minn. Power's Petition for Approval of an Elec. Serv. Agreement Between Magnetation and Minn. Power*, Docket No. E015/M-14-130, ORDER APPROVING PROPOSED ELECTRIC SERVICE AGREEMENT (May 6, 2014).

³⁰ Minn. Stat. § 216B.03.



unreasonably prejudicial as the additional sales to Google will benefit other customers by assisting in fixed-cost recovery.³¹

F. Renewable Energy Credits (RECs) and Renewable Sourcing

Xcel's renewable sourcing plan is an agreement to procure renewable energy resources and retire the associated RECs to match the data center's electric consumption. According to the ESA, "in addition to the Initial Clean Energy pursuant to this Agreement,"³² the ESA allows a span of time for Xcel to acquire additional resources to meet its renewable sourcing obligations, should the Company need to do so.³³

As shown below, in the publicly available excerpts of Sections 5.5.2 and 5.5.3 of the ESA, Xcel will annually retire RECs in an amount equal to the data center's total usage. Furthermore, the ESA allows Xcel to temporarily cover any possible REC shortfall with its own RECs, so long as it retires that same amount from the incremental new generation within 36 months:

5.5.2 Company will annually retire Clean Energy RECs in an amount equal to the total annual megawatt-hours of Service provided by Company to the Data Center in any given Annual Period (including, without limitation, the Service Commencement Stub Year and the Termination Stub Year) under this Agreement ("**Retiring Amount**") no later than June 1st of the following year.

5.5.3 In the event there are fewer Clean Energy RECs than the Data Center's consumption of energy (on a MWh basis) for any given Annual Period, Company will procure additional RECs at its cost and expense and in an amount equal to the difference between available Clean Energy RECs and the Data Center's total annual energy consumption for such Annual Period and Company will retire such RECs (for the avoidance of doubt, Company may use already existing RECs owned by Company to meet such obligations under this Section 5.5.3 of this Agreement); provided, however, that **in the event that Company retires already existing RECs that are not associated with Incremental New Generation, Company will have thirty-six (36) months to retire the same amount of RECs from Incremental New Generation**; and provided further, however, that such RECs will not be counted towards Company's obligations under section 5.5.2 of this Agreement. Company may procure RECs to meet the provisions of this Section

³¹ Petition, at 47.

³² Section 1.1.38 of the ESA states, "'Initial Clean Energy' means those renewable energy resources that Company intends to procure to meet its obligations with respect to Clean Energy under this Agreement that will be Incremental New Generation but may be contracted for or placed in-service prior to the Regulatory Approval Date. As of the Effective Date, Company believes that the Initial Clean Energy will be composed of three hundred (300) MW nameplate wind generation facilities under contract with Company. Company will provide a list of the resources (and provide regular updates) on Exhibit B identifying the Initial Clean Energy once it has been procured."

³³ ESA, at 5.1.2.

5.5.3 in any manner it deems fit, in its sole discretion.³⁴ (*Emphasis added by staff.*)

The ESA anticipates that Xcel might need to seek additional renewable energy during the initial term. Xcel claimed there might be insufficient time to secure these resources under the typical, Commission-approved bidding process. As a result, Xcel requests Commission approval to pursue a different resource acquisition process, which will grant Xcel the autonomy to decide the size, type, and timing of additional clean energy generation for its sourcing plan.

G. Time-of-Day (TOD) Service

Xcel explained in its Petition that the proposed competitive rate is based on its General TOD Tariff, but the TOD rate will be adjusted consistent with the CRR Agreement:

As part of the transaction, the Company will provide electric service to Google's proposed Becker data center as a Time of Day (TOD) customer, but provide that service at a negotiated rate.³⁵

Under the ESA, the data center will be a general TOD customer. The ESA is structured for Google to take service under the TOD so that the fundamental structure of the transaction does not deviate from standard service under our Tariff. Because the parties have negotiated a competitive rate, however, the TOD rate will be adjusted consistent with the CRR Agreement.³⁶

The CRR Rate is structured to provide Google an effective rate that takes the difference between each component of Xcel's TOD rate and a fixed amount. This structure, according to Xcel, "ensures that Google receives the agreed-to effective rate regardless of the actual TOD rate over the ten-year initial term of the ESA."³⁷

III. Petition: Part Two – The ESA, CRR Agreement, and IA

Clearly there are several complexities within Xcel's Petition, which is why staff presented Part One as a high-level overview of the Petition and relevant statutes. This section will provide more detail on the three Agreements, listed below, that are the subject of this proceeding:

- The Electric Service Agreement (ESA), which acts as the foundation between the parties and provides the key parameters under which the Company will provide service to the Becker data center;

³⁴ Petition, Attachment D, at 14.

³⁵ Petition, at 20.

³⁶ Petition, at 22.

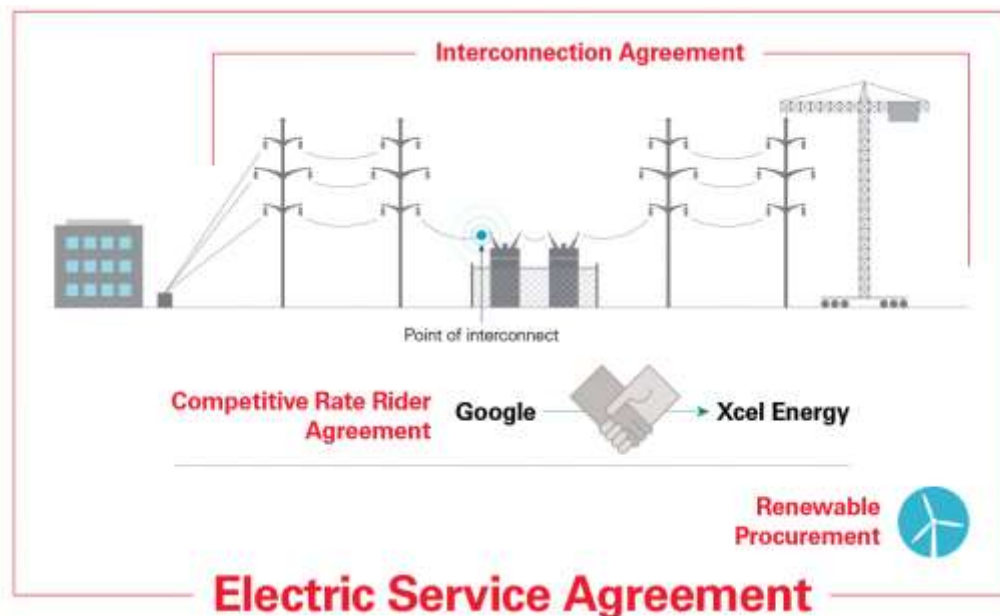
³⁷ Petition, at 44.

- The CRR Agreement, which outlines the rate which the parties negotiated and its related parts; and
- The Interconnection Agreement (IA), which provides the terms and conditions for Google to safely interconnect its data center to the Company's distribution system, which for purposes of this service will be operated at transmission level voltages.

These three Agreements govern the provision of electric service to the proposed data center. Xcel explained that it structured the proposed transaction through three separate agreements so as to best administer the project over its life, as well as to allocate risk amongst the parties.

A. ESA

The negotiated ESA establishes the terms and conditions under which Xcel will provide service to the data center.³⁸ While Xcel requests approval of three Agreements, the ESA is, in Xcel's words, "the base document" for the Becker data center project.³⁹ The Terms of Service listed in the ESA include the CRR Agreement (Section 2.3) and interconnection (Section 2.4.1). Xcel included the following figure to illustrate the ESA and the main components covered under it:



Xcel has marked many of the key values within the ESA as trade secret or highly confidential, such as maximum load, commencement of service, the termination date, the time limit to secure clean capacity, and so forth; however, all of these components are qualitatively described in the public Petition. At the most basic level, the ESA is a contract for electric service at transmission level voltages (115 kV), with an initial ten-year term and a requirement to be

³⁸ The ESA is contained in Attachment D (43 pages) of Xcel's initial filing. Xcel also intends to provide the Becker data center with natural gas service for heating under Xcel's natural gas retail tariff; thus, no separate Commission approvals are necessary.

³⁹ Petition, at 21.



sourced with 100% renewable energy. Also, the ESA provides service for the maximum load that the 315-acre Sherco site could physically accommodate.

Notably, the proposed data center will be one of only nine Xcel customers interconnected at transmission voltage. The Company has agreed to construct additional transmission voltage infrastructure, if necessary, to accommodate service at the data center. This infrastructure will be constructed in stages as load grows.⁴⁰ As will be discussed in more detail in the Interconnection Agreement section of the briefing papers, Google is not directly assigned electric upgrade costs; instead, these costs are embedded in the overall charges to Google.

Regarding commencement of service, Google has some flexibility with respect to its build out. The ESA provides a span of time (the specifics of which are HCTS information) following regulatory approval to place the data center into commercial operation. Google is required to provide Xcel with a Notice to Proceed in order to allow Xcel the ability to construct the required infrastructure in a timely manner.

As noted previously, under the ESA, Google will take service under General TOD rates subject to the energy charge and demand charge discounts in the CRR Agreement. An additional feature of the ESA requires Google to pay an annual minimum charge regardless of total MWh the data center consumes in any given year. The purpose of the annual minimum charge, Xcel explained, is to “protect the Company’s other customers from bearing stranded costs in the event the data center load is less than expected.”⁴¹ The annual minimum charge payments are calculated as a percentage of the data center’s prior year’s average peak load at a specified load factor. (This is a ratepayer risk mitigation measure for a circumstance in which Google’s load, and therefore Xcel’s revenues, could begin to decline during the ESA term.)

1. Standards for Determining Public Interest

The Commission’s Order in Docket No. 14-130 (the ESA between MP and Magnetation) established that an ESA should, at a minimum, meet the following two standards for approval:⁴²

- The terms and conditions of the ESA shall be consistent with the public interest; and
- The terms and conditions of the ESA shall be non-discriminatory.

For the proposed ESA to be in the public interest, it should satisfy the following test:

- No party affected by the proposed ESA should be worse off as a result of the ESA; and

⁴⁰ Petition, at 21.

⁴¹ Petition, at 22.

⁴² In the Matter of Minn. Power’s Petition for Approval of an Electric Service Agreement Between Magnetation and Minn. Power, Docket No. 14-130, ORDER APPROVING PROPOSED ELECTRIC SERVICE AGREEMENT (May 6, 2014).

- The ESA rates should be available to any large power customer facing similar circumstances.

ESA Does Not Harm Ratepayers

Xcel claimed the significant new load, along with the addition of new cost-effective renewables on the system, benefits all customers. In particular, the revenue contribution from the data center is expected to result in a smaller overall revenue requirement increase, thus lowering rates for other Xcel customers. As the data center's load expands over time, the increased revenue will provide even greater benefits to the existing customers.

ESA is Non-Discriminatory

Xcel claimed that the competitive rate is non-discriminatory since it is available to any customer meeting the requirements of this tariff, provided such customers meet the applicable statutory criteria.

2. Renewable Sourcing Plan

A key consideration for Google's selection of the Sherco site is the ability for the data center to be expanded substantially in size over time, while being supplied with 100% renewable energy. The ten-year term examined in the Strategist model covered the 2021-2030 timeframe (the ESA does not include a specific, firm date by which Google must have the data center operational). Of the eight scenarios Xcel tested, six scenarios found revenues to exceed the costs in all ten years of the ESA's initial term. The only two scenarios that did not provide net benefits in all years were the two solar-only sourced scenarios.⁴³ (Staff notes that all of the values in the Strategist analysis, such as the annual net benefit or cost under each scenario, was designated as HCTS information.)

One important aspect of Xcel's renewable sourcing plan is the Company's request to seek additional renewable resources in the event the data center's load growth outpaces the amount of RECs available to match the total MWh of service provided. According to Xcel, "the CRR Agreement does not specify the trajectory of load growth,"⁴⁴ which is why Xcel ran several different load growth scenarios in Strategist. Since load growth is uncertain, and because there is a time constraint for acquiring new generation in the ESA, Xcel requests flexibility in its resource acquisition process, the details of which are explained on page 33 of the Petition:

2. Benefits of Clean Energy Additions

While the two wind PPAs will allow the Company to meet its ESA clean energy obligations for some time, additional resources may be needed if the data center's

⁴³ Petition, at 36.

⁴⁴ Petition, at 40.



load growth outpaces the RECs banked from these wind resources. **These future resources could include wind, solar, and possibly other renewable resources procured through PPAs or as utility-owned assets.** *(Emphasis added by staff.)*

If additional renewable resources are needed to meet our clean energy obligations under the ESA, Xcel Energy must be able to act nimbly to procure any such additional resource. This is because the ESA allows the Company only **[TRADE SECRET DATA REMOVED]** to procure and place in service any additional clean energy needed to match the data center's usage. It typically takes **[TRADE SECRET DATA REMOVED]** to place a renewable energy project in service and another 7 to 8 months to obtain the necessary regulatory approvals. This timing presents significant uncertainty given the Company's clean energy commitments under the ESA. As a result, the Company seeks Commission approval today to allow Xcel Energy to procure the additional renewable resources necessary to comply with its obligations under the ESA. **Xcel Energy will determine the type of resources and the method for acquisition** but will seek to procure the most cost-effective resources that are available at that time. *(Emphasis added by staff.)*

Xcel Energy understands that this is a significant request of the Commission. To verify the feasibility of the Company's sourcing obligations and therefore the reasonableness of the renewable sourcing plan, Xcel Energy analyzed eight different feasible scenarios. These scenarios assumed different data center load growth patterns, procurement of different types of renewable generation sources, and a range of prices for those resources. This modeling is different than the incremental cost test discussed below in that it focuses on the benefits and costs associated with adding these renewable resources and the data center itself. The eight different future scenarios and results of this modeling are discussed below. *(Emphasis added by staff.)*

Staff will discuss the Company's resource acquisition proposal later in the briefing papers. For now, staff offers the suggestion that the Commission may wish to consider ways in which there can be more regulatory oversight in Xcel's resource acquisition plans; it seems that Xcel's request is for the Commission to grant the Company (essentially) complete decision-making authority over (1) the timing; (2) what type of resources it might pursue (wind, solar, or some combination), and (3) whether future resources will be in the form of PPAs or utility-owned assets. Staff is not persuaded that more Commission involvement will jeopardize Xcel's obligations under the ESA.

Provision of Natural Gas Service

Xcel intends to provide the data center with natural gas service for heating under the Company's existing natural gas retail tariff. According to Xcel, no separate Commission approvals are necessary for the provision of this service.⁴⁵

⁴⁵ Petition, at 27.

B. CRR Agreement

1. CRR Rate Discussion

The CRR Agreement provides the terms for the competitive rate negotiated between the Company and Google under Minn. Stat. § 216B.162. It contains four main components:

- **Competitive Rate:** The primary aspect of the CRR Agreement is the competitive rate to which the parties have agreed. A sample calculation of the CRR Rate is provided in Attachment B of Attachment G, which is marked as HCTS information.⁴⁶
- **Term:** The CRR Agreement will take effect at the beginning of electric service under the ESA, and it will terminate with the ESA.
- **Conservation Improvement Program (CIP) Exemption:** Google agrees to pay CIP charges (both the Conservation Cost Recovery Adjustment and the Conservation Cost Recovery Charge) in addition to its applicable rate unless and until it can apply for and qualify for a CIP exemption.
- **Regulatory Approvals:** The CRR Agreement is expressly subject to the approval of the Commission, and it is subject to the Commission approving the Company's requested treatment of the difference between the TOD rate and the rate paid by the data center under the CRR Agreement in all rate cases during the term of the ESA.

2. Analysis of Incremental Costs

Xcel prepared an incremental cost analysis, as required by Minn. Stat. §216B.162, subd. 4(1), that showed projected revenues from Google will exceed the incremental costs of providing service. Xcel identified the incremental costs to serve the Google data center to be:

- incremental energy costs – based on Google's estimated energy usage and the Company's projected marginal energy costs;
- incremental capacity costs – based on the Commission-approved incremental capacity pricing methodology and the future need for a combustion turbine addition;⁴⁷

⁴⁶ For ease of reference, Attachment G is 19 pages long. The sample calculation is on Pages 16-19 of 19 in Attachment G.

⁴⁷ Staff notes that the Department disputed Xcel's assumption using the combustion turbine addition for incremental capacity costs. However, the Department's preferred capacity cost assumption only makes the addition of the Google data center *more* cost-effective for Xcel's remaining customers.



- a jurisdictional cost allocation increase to Minnesota;
- a net increase in MISO costs due to increased expenses for ancillary services, administrative costs, and transmission costs due to increased load; and
- the incremental transmission costs for construction of new transmission facilities to serve the facility at transmission voltage.

Xcel also noted that, due to the project's renewable energy sourcing plan, no additional environmental costs can be attributed to the provision of service to Google's data center.

Xcel performed its incremental cost analysis both on a total load basis and on a 10-year load addition basis. As shown in its trade secret data, under both scenarios the projected revenues are greater than the incremental costs, demonstrating that the provision of service at the CRR Rate meets the statutory requirement of positive incremental revenue.

3. CRR Tariff Modifications Requested

Xcel's CRR Tariff was developed pursuant to the competitive rate statute, and it was approved by the Commission's September 3, 2013 Findings of Fact, Conclusions, and Order (2012 Order) in Docket No. E002/GR-12-961.⁴⁸ According to Xcel, the negotiated rate involves only "modest amendments to the existing CRR Tariff to accommodate the proposed Becker data center."⁴⁹ Specifically, Xcel seeks Commission approval to revise its current CRR Tariff to:⁵⁰

- modify the minimum load requirement for new customers from 2 MW to 10 MW with the ability to achieve 75 MW of load within 5 years, and
- allow for a contract term up to 10 years for new customers rather than the 7 years specified in the existing tariff.

Redline and clean versions of the proposed modifications to CRR Tariff Sheet No. 122 are provided in Attachment H of the Petition.

Xcel argued the increase in minimum load requirements is beneficial because it will provide flexibility for new large load customers to grow over time. Extending the term for an additional three years will provide the benefit of customer retention.

⁴⁸ *In the Matter of the Application of N. States Power Co. for Auth. to Increase Elec. Rates for Elec. Serv. in the State of Minn.*, Docket No. E002/GR-12-961, FINDINGS OF FACT, CONCLUSIONS, AND ORDER at 12 (Sept. 3, 2013).

⁴⁹ Petition, at 39.

⁵⁰ Minnesota Rate Book – No. 2, Section No. 5, Sheet No. 122.

Xcel also noted that the proposed modifications do not change the terms of the tariff for potential customers with existing load.

4. Compliance with Relevant Statutory Criteria

In the Relevant Statutes section of the briefing papers, staff provided a brief overview of the competitive rate statute, the electric service contract statute, and the reasonable rate statute. This section will focus on how Xcel claimed its proposed CRR Agreement complies the statutory criteria defined in the competitive rate statute.

Minn. Stat. § 216B.162, subd. 2 states that “the commission shall approve a competitive rate schedule when” there is effective competitive for customers with a connected load of at least 2 MW. Xcel argued its competitive rate meets the statutory criteria:

Subdivision 2 (Eligibility) Criteria	Xcel’s Stated Compliance with Criteria
Effective competition	Google can choose to locate outside of Minnesota
Connected load of at least 2 MW	Google’s data center initial load will be at least 10 MW

In prior decisions, the Commission has found that a customer’s ability to locate outside of Minnesota means that the customer is subject to effective competition.⁵¹

Minn. Stat. § 216B.162, subd. 4 provides six terms and conditions for service under a competitive rate tariff. Xcel stated that the proposed modifications satisfy these statutory criteria as follows:

⁵¹ *In the Matter of the Petition of N. States Power Co. d/b/a Xcel Energy for Approval of a Revised Competitive Response Rider Tariff and a Revised Competitive Response Rider Agreement with Gerdau Ameristeel US Inc.*, Docket No. E-002/M-12-163, ORDER (Sept. 20, 2016) (approving negotiated rate under the Competitive Rate Statute when a customer had the ability to invest in alternative locations outside of Minnesota); *In the Matter of a Petition by N. States Power Co. and North Star Steel for Approval of a Contract Amendment to their Elec. Serv. Agreement*, Docket No. E-002/M-93-301, ORDER APPROVING CONTRACT AMENDMENT WITH MODIFICATIONS (June 18, 1993) (approving the elimination of a demand charge for a steel processing customer who was considering alternative investments in other states).

Subdivision 4 (Rates and Terms) Criteria	Xcel's Stated Compliance with Criteria
Must recover the incremental cost of providing service	Attachment E provides an incremental cost analysis.
Must not exceed the difference between the standard tariff and the cost to the customer of the lowest cost competitive energy supply.	The CRR Rate takes the difference between each component of the Company's TOD rate and a fixed amount. Also, the rate is lower than large power rates offered by other utilities.
Utility is allowed, within a general rate case, to seek recovery of the difference between the standard tariff and the competitive rate times the usage level during the test year period.	Xcel requests Commission approval to reflect the difference between the CRR Rate and standard rate in the test year in a future rate case.
Must meet the conditions of section 216B.03 for other customers in the same customer class.	Xcel argues "[t]he proposed modifications to the CRR Tariff are just and reasonable and are not unreasonably preferential, unreasonably prejudicial, or discriminatory. "
Does not compete with district heating or cooling provided by a district heating utility.	The proposed CRR Rate does not compete with district heating or cooling.
Utility must not have a financial interest greater than 50%.	Xcel has no financial interest in Google or Honeycrisp.

Notably, Xcel's base rates will not be impacted until the Company's next rate case. As Xcel explained:

The benefit of the additional revenue to cover the fixed system costs would be realized at the time of Xcel Energy's next rate filing. If Xcel Energy files a rate case prior to the termination of this ESA, then all other things remaining the same, the ESA would result in lower overall revenue requirement increases and, therefore, result in effectively lower rates for other Xcel Energy customers than would be the case without the ESA.⁵²

The reason the CRR value will be reflected in a future rate case is because this cost recovery method is consistent with Minn. Stat. § 216B.162, subd. 4. The statute states that Xcel is allowed, "within a general rate case," to seek recovery of the difference between the standard tariff and the competitive rate times the usage level during the test period.⁵³

With this being said, costs and revenues related to the Fuel Clause Rider will have an immediate effect on Xcel's rates. As an additional note, Xcel is proposing to file a general rate case (including a multi-year rate plan) in November 2019.

⁵² Petition, at 29.

⁵³ Petition, at 50.

Minn. Stat. § 216B.162, subd. 7 sets out four main criteria under which the Commission may determine if the proposed competitive rate and agreement are consistent with the public interest. Xcel asserted that its proposals meet each of these criteria as follows:

Subd. 7 (Commission Determination) Criteria	Xcel's Stated Compliance with Criteria
Must meet the terms and conditions in subd. 4	See table above for compliance with subd. 4
Google can obtain its energy requirements from another energy supplier	Google has made clear it has the ability to locate its data center elsewhere.
Google is not likely to take service if charged the standard tariffed rate	Google's decision to select the Becker site is dependent on the CRR Rate.
Environmental and socioeconomic impacts are considered	The project will facilitate economic development and generate sales revenue in excess of its incremental costs to the system, and the renewable sourcing plan will benefit the environment and all customers.

5. Request for Approval of Ratemaking Treatment

The CRR Agreement provides the competitive rate for provision of service to the Becker data center, and this rate is allocated to base rates, riders, and the fuel clause. In this section, staff will discuss each one in turn.

Ratemaking Treatment

Xcel requested that the Commission approve the use of the CRR value in the test year in a future rate case. The Company wants to include the difference between the negotiated CRR rate and the standard TOD rate in the test year revenue requirement, with the difference fully allocated (in yet-to-be determined proportions) across all customer classes. Xcel proposes that different customer classes may be assigned different percentages of the CRR value.⁵⁴

Xcel stated that they are explicitly seeking Commission approval of ratemaking treatment in this order in this proceeding. Although Xcel acknowledged that the statute does not require approval of ratemaking treatment at the outset, the Company's agreements with Google are conditioned on this approval.

Xcel asserted that certainty around ratemaking treatment is necessary primarily due to the potential size of Google's data center load. To be able to assess the risk associated with the transaction, the Company claimed it needs to know how ratemaking will work going forward, especially considering that costs and revenues associated with a customer of this size can have a significant financial impact on the Company.

⁵⁴ Petition, at 52.

Rider Allocation

The specific allocation of the CRR Rate to riders is trade secret, but the intention is to cover the rider charges that Google would pay for Xcel's other riders at today's rider rates. The amount received from Google under this rate would then be reflected as revenue in the appropriate rider tracker accounts. This would act as a credit to the rider tracker accounts and reduce the costs that would otherwise be collected from all other customers under the riders.

Adding Google to the system will not result in any incremental costs under any of Xcel's other riders. While rider rates may vary over time, the rider revenues received from Google will reduce rider costs for all customers.

Fuel Clause Adjustment Treatment

Xcel requested that costs of the two initial wind PPAs under the renewable sourcing plan be included in the FCA. Also, Google will pay fuel costs through the FCA.

Mechanically, this will not function like the usual fuel clause accounting. Google, like any other system customer, will have any difference between its fuel price and the FCA price deferred on a monthly basis as either a regulatory asset or liability, which will be addressed in the annual review of the Company's fuel clause. Under this mechanism, any net benefits of this differential will be realized by all other customers through a credit to the fuel clause. In the event of a net loss, that would be reviewed in the annual fuel clause review and a recovery determination made at that time.

C. Interconnection Agreement

The final agreement is the Interconnection Agreement for Retail Electric Service at Transmission Voltage (IA). The IA is modeled on the Company's FERC-approved Transmission to Load Interconnection Agreement, and it covers the general terms for the coordination of operations between the data center and the Company for the safe and orderly function of each other's facilities.

Because Xcel will be providing retail electric service at transmission voltage, no wholesale sales are occurring. Additionally, no transmission of electric energy will occur through the Company facilities. Consequently, the IA is a Commission jurisdictional agreement and does not require FERC approval.⁵⁵

Like the other agreements, the IA has a ten-year term that commences when the data center achieves commercial operation.

Perhaps the most noteworthy part of the IA is that Google will not pay a contribution-in-aid-of-construction (CIAC), meaning that "Google will not directly contribute to the costs related to installation of the electrical upgrades necessary for the provision of service to the data

⁵⁵ Petition, at 26.



center.”⁵⁶ Under the proposed IA, Xcel has agreed to construct the additional transmission infrastructure as the data center load expands. Xcel argued that since Google has the potential to be one of Xcel’s largest retail customers, operating at a high capacity factor, Xcel believes it is reasonable to assume the costs for the upgrades:

Google has the potential to be one of the largest retail customers on Xcel Energy’s system. As a result, it is in the public interest for the Company to undertake installation of certain electric facility upgrades to accommodate this new, large customer.⁵⁷

Xcel further argued that “the costs and expenses associated with these facilities will be offset by the corresponding revenues as demonstrated by the fact that such costs and expenses were included in the incremental cost test.”⁵⁸

Under Xcel’s General TOD Service Tariff, the customer is responsible for the cost of all facilities necessary to interconnect. Because Xcel agreed to construct any additional infrastructure, Xcel requests approval of a “one-time waiver of tariff provisions related to customer contributions for the interconnection infrastructure.”⁵⁹ Xcel will request cost recovery for upgrades made pursuant to the IA in a future electric rate case.

Xcel noted that the “one-time” waiver applies to Sections 5.1B, 5.2, and 5.3 of the Tariff:⁶⁰

- Section 5.1B governs the provision of electric service at transmission voltage. Among other things, it requires a requesting customer to, among other things, reimburse Xcel for all costs associated with required new or relocated transmission lines or extensions and substation modifications.
- Section 5.2 sets forth general expenditure requirements and customer payment obligations for standard installations and extensions Xcel facilities that are required to supply electric service.
- Section 5.3, among other things, establishes additional payment obligations for excess expenditures associated with special facilities and transmission facilities whose design standards exceed certain standard facilities design thresholds.

⁵⁶ Petition, at 48.

⁵⁷ Petition, at 48.

⁵⁸ Petition, at 50.

⁵⁹ Petition, at 48.

⁶⁰ Petition, at 49-50.

IV. Parties' Comments

The following parties filed comments to Xcel's Petition: the Department of Commerce, the City of Becker, Sherburne County, the City of Minneapolis, and Fresh Energy.

A. Department of Commerce

1. Summary

The Department concluded that Xcel's proposed data center and accompanying Agreements are in the public interest. Specifically, the Department concluded that no party is negatively affected, and the terms and conditions are non-discriminatory. However, the Department further recommended the Commission approve the proposed ESA "with the condition that Xcel offer similar, renewable sourcing for other large, high load factor customers that commit to bringing new or expanded load of similar size to the Company's system."⁶¹

The Department reached its conclusion, in part, by determining that "the new service provided to Google should reduce Xcel's net revenue requirements in the future, thus benefiting Xcel's existing ratepayers."⁶² Like Xcel, the Department noted that since base rates will not be immediately affected, the new service provided to Google will not reduce Xcel's net revenue requirements until the Company files its next rate case.

Moreover, the Department agreed with Xcel⁶³ that, because both Xcel and Google voluntarily agreed to the terms and conditions of the Agreements, it is reasonable to conclude that neither party would be worse off as a result.⁶⁴ Thus, the Department's analysis focused most squarely on whether other ratepayers might be negatively impacted as a result of the Agreements.

In particular, the Department closely examined Xcel's incremental cost analysis and ratemaking treatment. For the incremental cost analysis, the Department verified that, indeed, the incremental revenues are expected to be greater than the incremental costs. As an additional measure, the Department requested⁶⁵ Xcel to provide an incremental cost/benefit analysis specific to the rate case impact (which excludes the FCA and riders),⁶⁶ and based on this information, the Department concluded the Agreements will be beneficial to ratepayers in the next rate case. In fact, the Department stated that, assuming the expected data center expansion, "the data center would be the largest customer on the NSP System. At that size, the increase in revenues due to this additional load is material and could reduce revenue

⁶¹ Department initial comments, at 46.

⁶² Department initial comments, at 8.

⁶³ Petition, at 29.

⁶⁴ The Commission should bear in mind Xcel's request for certainty of ratemaking treatment without which Xcel has claimed that it would face unacceptable risk. This issue is discussed in detail later in this briefing paper.

⁶⁵ DOC Information Request No. 1.

⁶⁶ Department initial comments, at 37.



deficiencies such that a future rate case may be delayed,”⁶⁷ although Xcel has not offered to delay its upcoming rate case.

2. ESA

The Department explained that the ESA furthers the following goals established in Minn. Stat. § 216C.05 subd. 2 (“Energy policy goals”) by:

1. achieving 1.5 percent annual energy savings;
2. reducing the per capita use of fossil fuels 15 percent by the year 2015;
3. achieving 25 percent renewable energy by 2025; and
4. achieving retail electric rates that are five percent below the national average.

The ESA advances these policy goals by, first, requiring in the CRR Tariff, “verification that customer has been fully informed of the availability of energy audits.”⁶⁸ Second, Xcel explained in the Petition that “[u]nder the terms of the contracts that will serve the proposed Becker data center, the Company has agreed to procure new, incremental renewable energy resources that will be used to match the data center’s annual energy usage.”⁶⁹ Third, as noted above, Xcel’s incremental revenues are expected to exceed incremental costs, thus enabling a reduction in rates for Xcel’s other retail customers, all else being equal.

3. ESA’s Renewable Sourcing Plan

In its initial comments, the Department made four recommendations with respect to Xcel’s renewable sourcing plan:

- Approve the proposed clean energy plan with Xcel acquiring 300 MW of new wind generation for Google’s load;
- Approve the proposed clean capacity plan with Xcel not acquiring any specific capacity for Google’s load at this time;
- Approve Xcel’s request for authorization to procure additional renewable resources necessary to comply with its obligations under the ESA; and

⁶⁷ Department initial comments, at 34-35.

⁶⁸ Department initial comments, at 9.

⁶⁹ Department initial comments, at 9.



- Take no action on Xcel's request for a determination that the costs associated with the renewable sourcing plan are recoverable.

Staff notes that the first three Department recommendations shown above are effectively the same requests Xcel made on page 55 of its Petition, although worded slightly differently. Where the Department initially differed from Xcel is with respect to the fourth bullet, the recommendation to take no action on costs related to implementing the sourcing plan.

According to the Department, Xcel's Petition did not provide a resource acquisition proposal that could be evaluated in order to make a determination that Xcel should be able to recover costs associated with the sourcing plan. The Department concluded, "[g]iven the lack of information in the Company's proposal, the Department recommends that the Commission take no action on Xcel's request."⁷⁰

In Xcel's reply comments, the Company proposed a "negative check-off" Commission review, under which Xcel will "file with the Commission its resource acquisition proposal **after the resource has been selected and all contracts have been negotiated.**"⁷¹ (*Emphasis added by staff.*) If, after thirty days, no additional process is requested, the resource acquisition would be deemed approved by the Commission.

In response, the Department found this to be a reasonable approach and withdrew its recommendation to take no action on Xcel's request to recover costs for the sourcing plan. In its place, the Department recommended the Commission approve Xcel's proposed negative check-off proposal for future renewable resource acquisitions, on the condition that any negative check-off filing by Xcel contain the following information:

- a Google-specific renewable energy credit forecast;
- how the size, type, and timing of the need for future renewable resource acquisitions were determined;
- the process (request for proposals, informal review, etc.) used for identifying the proposed project and how it was carried out; and
- Xcel's evaluation of the factors that differentiated the proposed project from others (such as cost, interconnection queue, environmental impact, risks, etc.).

Staff will discuss the negative check-off proposal further in the Staff Analysis section of the briefing papers.

⁷⁰ Department initial comments, at 14.

⁷¹ Xcel reply comments, at 5.

4. CRR Tariff

The Department noted that the most recent, full review of Xcel’s CRR tariffs was in its 2012 rate case.⁷² In that rate case, the Department’s rate design analysis was motivated by the following four goals:

- rates should be designed to allow Xcel a reasonable opportunity to recover its revenue requirement, including the cost of capital;
- rates should promote the efficient use of resources;
- rate changes should be gradual to limit rate shock to ratepayers; and
- rates should be understandable and easy to administer.

The Department’s analysis of Xcel’s proposed CRR tariff modifications in this docket were done largely in the context of the four rate design goals listed above.

As discussed previously, Xcel’s proposed amendments to the CRR tariff do not impact existing customers; rather, they change the minimum load availability and term length for *new* customers. (And given the “ability to increase load to 75 MW” requirement, new customer availability is fairly specific to the type of load and expansion that a data center can provide.)

The proposed Tariff amendments are shown in the table below:

Section	Existing Customers	New Customers
Availability	Subject to effective competition	Subject to effective competition
	Minimum load of 2 MW	Minimum load of 10 MW, with ability to increase load to 75 MW within 5 years
Terms of service	Term of from 1 to 7 years	Term of from 1 to 10 years

The Department’s conclusions and recommendations regarding the CRR Tariff modifications are included on pages 16-17 of its initial comments. To summarize the Department’s positions on the new customer availability and term length:

- Minimum Demand: Xcel’s Tariff modifications on minimum demand are reasonable because, first, there is no impact existing customers, and second, it is reasonable to

⁷² Docket No. E-002/GR-15-826.



offer special discounts to new loads large enough to reduce costs to remaining ratepayers.⁷³

- Term of Service: According to the Department, “it is reasonable for Xcel to obtain a longer initial commitment from new loads to keep such loads on Xcel’s system for a longer period [and] Xcel’s proposed maximum of 10 years is reasonable.”⁷⁴

Thus, the Department recommends that the Commission approve the proposed CRR Tariff modifications.

5. CRR Agreement

According to the Department, “the main term of the proposed CRR Agreement is the CRR Rate.”⁷⁵ The CRR Agreement implements the proposed CRR Rate by applying it to Google’s purchase of electric service under the proposed ESA.

On page 18 of its initial comments, the Department provided a list of several terms and conditions of the proposed CRR Agreement. These include the effective competition and minimum load criteria of Minn. Stat. § 216B.162, subd. 2, the conditions set forth in Minn. Stat. § 216B.03, financial conflicts, and competition with district heating and cooling. Additionally, the Department’s list includes nine provisions required to be met by the proposed ESA,⁷⁶ which are defined in Sections 3.a (i.-iii.) through 3.g of Xcel’s CRR Tariff. (Clean and redline versions of the CRR Tariff are provided in Attachment H of Xcel’s Petition.)

On pages 19-26 of its initial comments, the Department addresses each requirement for the proposed CRR Agreement. In summary, the Department agreed with Xcel’s justifications for effective competitive and minimum load, by referencing Google’s ability to choose locations outside the state and the fact that its load is expected to be 10 MW initially. Regarding the nine required ESA provisions (as defined in Sections 3.a (i.-iii.) through 3.g of Xcel’s CRR Tariff), the Department verified that “each of the requirements for the proposed ESA either has been met by the proposed Agreements or is not applicable.”⁷⁷ And, the Department concluded Xcel’s proposal meets the requirements of Minn. Stat. § 216B.03.

Other Ratepayer Benefit-Cost Test

⁷³ This means the new load must be large enough so that the difference between the incremental revenues and incremental costs of the new load can contribute meaningfully towards reducing the costs for the existing customers.

⁷⁴ Department initial comments, at 17.

⁷⁵ Department initial comments, at 17.

⁷⁶ The Department noted that some of the provisions are not in the ESA but are in other agreements, which the Department noted is a moot point because all agreements require Commission approval for the data center to move forward.

⁷⁷ Department comments, at 24.



One area where the Department had disagreements with Xcel was in its “Other Ratepayer Benefit-Cost Test” section on pages 25-26 of its initial comments. Specifically, referring to Attachment E of the Petition (the incremental cost analysis), the Department challenged two assumptions in Xcel’s analysis.

First, the Department considers Xcel’s assumption that capacity costs are equal to a combustion turbine to be “unpersuasive,” noting that the earliest year in which new capacity resources could be needed in the 2027-2030 timeframe. When the Company has a capacity surplus, an increase in load demand would not immediately trigger the additional costs of building a combustion turbine. Rather, the Company’s additional costs would come from foregoing the opportunity to sell capacity into the MISO capacity market. So, the Department recalculated Xcel’s Attachment E, page 1 of 2, by assuming a capacity cost of \$20 per MW-day price⁷⁸ for the years 2021 to 2026 and then reverted to Xcel’s calculation of the cost of adding a combustion turbine for 2017 to 2030. Under this scenario, the Department’s calculations have a positive effect, making the addition of Google’s data center more cost-effective for Xcel’s other customers.

Second, the Department recalculated Attachment E, page 1 of 2, assuming no new capacity is needed until after 2030 and assuming an annual inflation rate of 2 percent. Again, this scenario made Google’s data center more cost-effective for other customers.

While the Department disagreed with some of the assumptions in Attachment E, overall the Department determined the benefit-cost test for other ratepayers was met. In other words, the Department’s preferred inputs support its conclusion that Xcel’s incremental cost analysis justified that the data center is in the public interest.

6. Interconnection Agreement

The Department voiced general concerns, from a policy perspective and as a potential future precedent, regarding Xcel’s proposal to not have Google directly contribute to costs related to the installation of transmission electric upgrades necessary for the data center. However, the Department noted that Xcel reasonably justified its request for a one-time waiver of tariffed sections 5.1B, 5.2, and 5.3 by stating that “costs and expenses associated with these [transmission] facilities will be offset by the corresponding revenues as demonstrated by the fact that such costs and expenses were included in the incremental cost test.”

As such, this circumstance mitigated the risks to other ratepayers of Google not directly contributing to its transmission installation costs. Therefore, the Department recommended the Commission approve Xcel’s proposed ratemaking treatment of the interconnection costs and of Xcel’s requested one-time waiver of Xcel’s tariff provisions related to customer contributions for the interconnection of the data center.

⁷⁸ The \$20 per MW-day price approximates the highest capacity price for MISO’s zone 1 during the past 5 years. See MISO Capacity Auction Results.

The Department also noted that the provision in the IA which requires Google to pay the net book value of any transmission facilities built to serve Google in the event of termination, although not ensuring that Google pays for all costs of its transmission facilities, would at least ensure that there are no stranded costs associated with it.

7. Ratemaking Treatment

The Petition requested Commission approval of two cost recovery items. The first is for the ratemaking treatment of the “difference between the negotiated rate under the ESA and CRR Agreement and the standard rate.” The second is for the ratemaking treatment of facilities used to provide electric service at transmission voltage.

Table 1 on page 33 of the HCTS version of the Department’s initial comments (page 32 on the public version) shows a summary of ratemaking treatment for Google. On pages 36-43 of its HCTS comments (pages 35-42 of the public version), the Department addresses whether the negotiated CRR rate is reasonable for use in future rate cases. In short, based on its review, “the Department considers Xcel’s request for Commission approval to reflect the CRR value in the test year for future rate cases to be reasonable.”⁷⁹

The Department noted that there are ratepayer risks if Google-related costs in the FCA, applicable other riders, and rate cases go up.⁸⁰ The Department also cited other risks, such as the data center not being operational or revenues being less than forecasted:

In this case the main risk is that the projects might be constructed only to find out later that Google’s data center is not operational or that revenues from Google are substantially less than forecasted and that Xcel’s existing ratepayers may be at risk for being responsible for the resulting stranded costs.⁸¹

Ultimately, the Department concluded that “the risks associated with the proposed Agreements have been adequately mitigated.”⁸² However, to provide further protections for ratepayers, the Department recommended, “if a net loss occurs (Google’s FCA revenues being lower than their FCA costs), then Xcel has agreed that the net loss would be reviewed in the annual fuel clause review and a recovery determination would be made at that time.”⁸³

8. Reporting Requirements

Given that Xcel requested Commission approval to recover the cost of providing the CRR Rate in its next general rate case (consistent with the CRR Statute), the Department identified a number of areas where Xcel could provide more information in its next rate case. The

⁷⁹ Department initial comments, at 36.

⁸⁰ Department initial comments, at 32.

⁸¹ Department initial comments, at 43.

⁸² Department initial comments, at 46.

⁸³ Department initial comments, at 41-42.

Department also recommended that Xcel make a compliance filing, which the Company seemingly anticipated, as it expressed a willingness to do so in the Petition.

Specifically, the Department recommends the following reporting requirements in a compliance filing or in Xcel's next rate case (staff selected these from the Department's recommendations of pages 4-5 of its reply comments):

- require Xcel to provide an update of the rate case incremental cost and benefit analysis in future rate cases where the Company includes costs and revenues related to Google.
- require Xcel to provide in future rate cases when Xcel is including costs and revenues related to Google an update to both the overall Incremental Cost and Benefit Analysis and the Rate Case Incremental Cost and Benefit Analysis as recommended in the Department's February 15, 2019 Comments.
- require Xcel to make a compliance filing showing how other ratepayers would not be harmed by the discounts offered to Google and demonstrating that the requested changes would not result in double recovery of costs.
- require Xcel to keep the Commission fully informed in advance if the Company intends to exercise any of its options under these agreements.

B. City of Becker

The City of Becker, whose comments strongly support the data center, largely pointed to the economic benefits the proposed project could provide; the City of Becker noted that these benefits are needed to offset the job cuts and loss of tax base due to the Sherco 1 and 2 plant closure:

It would be difficult to overstate the importance of this project to our local community as we try to prepare for the eventual closing of Sherco coal units 1 and 2. At the same time, we recognize that Google's site selection process is highly competitive and can be dependent on local support and a reliable, affordable electric supply. On our end, there is strong support for this project. The proposed Google data center represents the culmination of our collective efforts to obtain a major capital investment in the new Becker business center. It can also serve as a catalyst to attract future growth, helping the County and the City as we transition away from a coal-based economy.⁸⁴

To prepare for the eventual shutdown of Xcel's Sherco 1 and 2 units, the City and Sherburne County have been working closely with Xcel to create a state-of-the-art business park to draw

⁸⁴ City of Becker comments, at 2.

new businesses and capital investment into the area. The “collective goal,” as the City put it, is “to develop sites that will help facilitate our transition away from a coal-based economy (relying on Sherco as our major employer and tax base), to a more diversified economy utilizing alternative energy sources.”⁸⁵

According to the City, “if the project moves forward, Google intends to invest \$300,000,000 in construction costs alone, with an additional \$300,000,000 invested in equipment,”⁸⁶ and these substantial investments are important to the local economy. The City also supports Xcel’s renewable sourcing plan, noting “renewable energy is both policy-based and has a practical, economic benefit,” and that “utilizing renewable energy fits nicely with Sherburne County’s commitment to supporting clean energy projects.”⁸⁷

C. Sherburne County

Sherburne County’s comments were similar to those provided by the City of Becker. The County emphasized the negative impacts of the Sherco 1 and 2 plant closure on the community, which can be mitigated by the data center. As the City of Becker highlighted, the County noted the importance of the economic activity that the data center will provide.

D. City of Minneapolis

The City of Minneapolis also supports the proposed data center. However, the City’s chief interest is that the Commission direct Xcel to work with stakeholders to propose a carbon neutral economic development tariff, with an all-electric requirement or option, to be made available to other customers as well. As a large customer of Xcel, with an interest in both economic development and renewable energy, the City of Minneapolis believes Xcel’s offer to Google should be expanded to other large, high-load factor customers.

E. Fresh Energy

Fresh Energy supports the proposed data center and also endorses the City of Minneapolis’s request to expand the rate offered to Google to new loads that are both 100% renewable and all-electric. According to Fresh Energy, “this could be accomplished either through a stand-alone filing or in Xcel’s next rate case.”⁸⁸

The only major issue Fresh Energy has with the contracts is that Xcel intends to provide the data center with natural gas service for heating under the Company’s existing natural gas retail tariff.⁸⁹ 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

⁸⁵ City of Becker comments, at 1.

⁸⁶ City of Becker comments, at 2.

⁸⁷ City of Becker comments, at 2.

⁸⁸ Fresh Energy comments, at 3.

⁸⁹ Petition, at 27.

center through air-source heat pumps.⁹⁰ In addition, Fresh Energy has provided technical materials on the subject and wishes to work with Google to allow the project's physical energy to be 100% carbon-free.⁹¹

V. Staff Analysis

In this section, staff will mainly address four issues: 1) Xcel's proposed decision options; 2) the expansion of the competitive rate into a broader offering (i.e. Fresh Energy's and the City of Minneapolis's recommendations); 3) Xcel's renewable sourcing plan and proposed "negative check-off;" and 4) compliance filings.

Before addressing these matters, however, staff notes that, in its review of Xcel's Petition and the evidence introduced into the record, staff believes Xcel and the parties made it clear that the proposed Becker data center is in the public interest. In addition to the results of Xcel's incremental cost analysis and sourcing plan modeling—which showed economic benefits at both the low and high ends of the load growth range—the DEED and Oxford studies provided important context, as well as robust evidence of the socioeconomic benefits the project could produce. And the comments from the City of Becker and Sherburne County illustrate how the data center project exemplifies sound strategic planning paired with the strong support of local communities.

Not only does the project present a unique opportunity to the region and State of Minnesota when viewed in isolation, but as the City of Becker and Sherburne County noted, the data center can be "a catalyst to attract future growth" that can "help facilitate [a] transition away from a coal-based economy." These long-term views are notably consistent with a number of the State's public policy goals.

Finally, Xcel's 2015 Integrated Resource Plan (IRP) built a robust record showing that retiring Xcel's coal-fired Sherco 1 and 2 units was the most economic path forward, which also made financial sense for the Company as well as advanced the State's clean energy goals. Xcel's work with DEED, the City of Becker, and Sherburne County aimed to attract new load to the existing infrastructure at the Sherco site, create jobs in the area, and help replace the loss of tax base as a result of plant closure; the Petition, along with its several attachments, comprehensively examined how the data center can mitigate the local impact of an IRP decision with a beneficial system-wide impact.

For these reasons, staff joins the parties in support of Xcel's proposal. Moving on from the merits of the data center project, the remainder of this section will discuss procedural issues.

A. Discussion of Xcel's Requested Commission Actions

On page 55 of its Petition, Xcel requested the Commission take the following actions:

⁹⁰ Fresh Energy comments, at 3.

⁹¹ Fresh Energy comments, at 4.



- Approve the ESA;
- Approve the renewable sourcing plan;
- Approve cost recovery through the relevant ratemaking mechanism of the costs and expenses associated with obtaining the renewable energy required by the renewable sourcing plan throughout the term of the ESA;
- Approve the CRR Agreement;
- Approve the requested ratemaking treatment for the difference between the negotiated rate under the ESA and CRR Agreement and the standard rate;
- Approve amendments to the CRR Tariff;
- Approve the IA; and
- Approve the requested ratemaking treatment of Xcel Energy's costs associated with the facilities used to provide electric service to the Becker data center at transmission voltage.

The Decision Options section of the briefing papers includes Xcel's list of requested Commission actions as they are written above (although they are combined with the Department's recommendations and arranged by topic). While the purpose of this section is not to support or oppose Xcel's recommendations, staff believes some of Xcel's requested Commission actions might benefit from further discussion or explanation, to hopefully clarify them or suggest possible changes to their language.

For example, as noted in the section discussing the IA, the Company requests a "one-time waiver of provisions related to customer contributions for the interconnection infrastructure."⁹² The Commission may notice from Xcel's list of requested Commission actions that it does not explicitly include granting a one-time waiver. This is because, as staff understands it, approving the IA and requested ratemaking treatment would effectively have the same result as granting a one-time waiver. However, the Commission might prefer to explicitly reference the one-time waiver in its motion, in which case it could adopt the Department's recommendation to do so.

⁹² Petition, at 48.

Also, Xcel stated, “[t]o the extent that additional tariff modifications or waivers are necessary, the Company will make any such modifications as part of a later compliance filing.”⁹³ Staff agrees this is a reasonable recommendation, but this raises another issue, which is taking inventory of all items to include in a future compliance filing.

Generally speaking, staff would suggest that as the Commission reviews the record, it might be worth keeping in mind all of the information that might be useful to include in a future compliance filing. Staff has some suggestions for items to include, which staff will discuss in a later section, and the Department identified a number of issues to address in the next rate case and/or in a compliance filing. Staff raises this because it is likely that toward the end of the Commission’s deliberations (assuming it approves the proposal), one task will be collecting all of the recommended reporting requirements and rolling them into one decision option with several sub-components. It might be helpful to be mindful of this task while reviewing the record.

Third, Xcel requests the Commission approve the Company’s proposed renewable sourcing plan. To be clear, approving the sourcing plan is not an approval of the renewable projects comprising the sourcing plan. As Xcel explained, “[t]hrough separate petitions, the Company intends to ask the Commission to approve up to 300 MW of [wind PPAs].”⁹⁴ A petition for approval of one of the wind PPAs in the sourcing plan, Dakota Range III, was filed on December 13, 2018 in Docket No. 18-765 and is currently scheduled for the Commission’s May 14, 2019 agenda meeting, the same meeting as the instant docket.

Additionally, as a separate request (which is the third bullet point from the list above), Xcel requests cost recovery “through the relevant ratemaking mechanism” for costs and expenses associated with “obtaining the renewable energy required by the renewable sourcing plan.” It is not entirely clear, from staff’s perspective, why anything related to cost recovery for the sourcing plan should be addressed here when approval for and cost recovery of the renewable projects comprising the sourcing plan will be filed through separate petitions.

In other words, approving the sourcing plan establishes a need for the wind PPAs, and Xcel has and will request to recover the associated costs of the wind PPAs through the Fuel Clause Rider (i.e. the relevant ratemaking mechanism). To be clear, staff does not believe addressing sourcing plan cost recovery in this docket is particularly problematic, but it would be reasonable if the Commission decided to take no action on this issue at this time.

Finally, with respect to Xcel’s requested ratemaking treatment for the difference between the negotiated rate and the standard rate, it is clear that Minn. Stat. § 216B.162, subd. 4 permits Xcel to seek to recover this difference during the test year period in a rate case. However, one could argue that Xcel’s request goes beyond merely seeking recovery in a future rate case; by approving the difference between the negotiated rate and the standard rate—which according to Attachment E could mean vastly different amounts that depend on several factors—it is not

⁹³ Petition, at 50.

⁹⁴ Petition, at 4.

clear (at least to staff) whether Xcel is seeking Commission approval to, for example, possibly assign different percentages of the CRR value to different customer classes in a future rate case.

As discussed previously, the public interest argument is well-established. However, it appears Xcel seeks additional assurance from the Commission to guard against the usual uncertainties that arise when serving a large inaugural customer. The Commission may stress that as the incremental revenue has been shown to exceed incremental cost of serving Google at present, the Commission is not compelled to address, at present, uncertainties that may or may not come true in the future. The Commission may address the ratemaking requests of Xcel as part of overall revenue requirement in the next rate case.

B. Expansion of the Competitive Rate

Fresh Energy, City of Minneapolis, and Department Recommendations

Fresh Energy and the City of Minneapolis request Commission actions to direct Xcel to work with interested stakeholders to expand its offering to Google so that other, similarly situated customers can receive an economic development tariff with a carbon-neutral all-electric option.

In reply comments, Xcel responded that Fresh Energy's and the City of Minneapolis's concerns are more appropriately suited for other dockets:

We believe that discussions of these types of programs are more appropriate in different dockets, in particular our resource plan proceedings and, because they are not directly tied to the development of the Google data center, are not appropriate for discussion here. We encourage Fresh Energy and the City of Minneapolis to engage with our resource plan proceedings, and we look forward to working with them, and all of our stakeholders, to develop programs to meet their needs.⁹⁵

Similarly, the Department recommended the Commission “approve the proposed ESA **with the condition** that Xcel offer similar, renewable sourcing for other large, high load factor customers that commit to bringing new or expanded load of similar size to the Company's system.”⁹⁶ (*Emphasis added by staff.*) However, Xcel did not respond to the Department's proposed language to conditionally approve the Company's requests.

Staff agrees with Xcel that the stated objectives from Fresh Energy and the City of Minneapolis are more properly suited to different dockets. In the same vein, staff does not believe the Commission needs to adopt the Department's language to approve the ESA “with the condition” that the offering extend beyond Google. Instead, staff believes it would be more appropriate and clear to confine the decision to a determination that the proposed data center

⁹⁵ Xcel reply comments, at 6.

⁹⁶ Department reply comments, at 4.

project is in the public interest and meets the statutory criteria required by Minn. Stat. §§ 216B.162, 216B.05, and 216B.03.

In staff's opinion, there is questionable value in making broader public policy decisions that do not need to be made in this docket, especially since the Company believes "discussions of these types of programs are more appropriate in different dockets."⁹⁷ Xcel noted it recently filed to expand Renewable*Connect and make it a permanent program, and the design of that offering is to some extent "tailored to high-load factor customers."⁹⁸ With the caveat that Xcel's Renewable*Connect petition is still pending, and there are a number of disputed issues (and thus it might be premature to direct stakeholders to an unapproved rate offering), staff agrees with Xcel's bigger picture view: The Company believes it is moving forward with a new product, which in Xcel's view addresses Fresh Energy's and the City of Minneapolis's public policy concerns. Therefore, at this time, a reasonable course of action could be to at least address the Renewable*Connect docket first before changing the nature of currently-offered competitive rates.

C. Future Resource Acquisition and Xcel's Proposed "Negative Check-Off"

In the Petition, Xcel requested "Commission approval today to allow Xcel Energy to procure the additional renewable resources necessary to comply with its obligations under the ESA."⁹⁹ In its reply comments, Xcel further discussed various aspects of their resource acquisition process:

Because we require flexibility in our ability to meet our sourcing obligations under the ESA and time will be of the essence, **we would propose a negative check-off Commission review, much like used to be in place for C-BED projects and currently in place for contract amendments with community solar garden developers.** Under this procedure, the Company will file with the Commission its resource acquisition proposal after the resource has been selected and all contracts have been negotiated. If the Department or other parties wish to have further Commission review of the acquisition they can file comments requesting such additional review. However, **if no additional process is requested, the resource acquisition would be deemed approved by the Commission after thirty days.**¹⁰⁰ *(Emphasis added by staff.)*

The Department replied that the Commission should approve Xcel's proposed negative check-off proposal with the four ratepayer protections as listed on page 29 of these briefing papers and pages 4 and 5 of the Department's reply comments.

To start from the beginning, a "negative check-off" is basically a system whereby some utility action or tariff is deemed approved at the end of a certain time period—in this case, Xcel

⁹⁷ Xcel reply comments, at 6.

⁹⁸ Xcel reply comments, at 6.

⁹⁹ Petition, at 33.

¹⁰⁰ Xcel reply comments, at 5.



proposes 30 days—unless a party or the Commission objects. If there is an objection, then the action or tariff is stayed until the Commission makes an affirmative decision to approve, disapprove, or modify the proposal.

Notably, under this approach, Xcel would file a proposal *after* the resource has been selected and, in the case of a PPA, contracts are executed. Such a process arguably allows for little Commission oversight. Given the time constraint in the ESA for Xcel to provide incremental clean energy, it is difficult to imagine how the Commission would have any other option than to approve whatever Xcel proposes without jeopardizing the terms of the ESA. The Commission might feel forced into approving a project no matter what it is since there would likely be insufficient time to restart the process.

The Petition noted that future resources could be “wind, solar, and possibly other renewable resources procured through PPAs or as utility-owned assets,” but Xcel will “seek to procure the most cost-effective resources that are available at that time.”¹⁰¹ With no specifics provided at this time, it may be preferable to have more of a positive review process rather than, or in addition to, a negative check-off, which could perhaps be accomplished to some extent through annual compliance filings.

To be clear, staff does not oppose the negative check-off proposal; rather, staff would suggest accompanying it with more information in advance. For example, according to Xcel, the ESA requires that the data center provide annual load forecasts to Xcel.¹⁰² Also, there is some flexibility in how Xcel can utilize its RECs. At the very least, Xcel could provide the data center load forecast and REC forecast as part of an annual compliance filing, so the Commission can have a better idea of if or when a resource acquisition process will be required.

In addition to this information, staff suggests that Xcel provide Strategist runs in its annual compliance filings, mirroring the eight scenarios provided in the Petition. This would provide some preliminary analysis that could later justify the types of resources it might pursue and when. Such preparatory work should be compatible with a negative check-off proposal because, ideally, the data center Strategist runs would be similar to the resources Xcel might eventually select.

Finally, because incremental clean energy for Google are seemingly in addition to resources approved for Xcel’s Upper Midwest system in the IRP, it is worth briefly discussing the certificate of need (CN) requirements in this context. Xcel mentioned C-BED and community solar gardens as examples where a negative check-off review has been used, but these may not be apples-to-apples comparisons because those are not large energy facilities, whereas incremental data center sourcing resources likely would be. The IRP Statute has criteria for exemptions from CN proceedings, and these include projects “selected in a bidding process approved or established by the Commission”.¹⁰³ If it chooses to do so, the Commission could

¹⁰¹ Petition, at 33.

¹⁰² Petition, at 23.

¹⁰³ Minn. Stat. § 216B.2422, subd. 5.



find that the sourcing plan in general, including the negative check-off, is exempt from CN, and this specific finding would fit under Minn. Stat. § 216B.2422, subd. 5.

D. Ratepayer Risks

As staff noted previously, if all goes as planned, the record shows that the data center project will have benefits for all parties involved (Xcel, Google, and existing ratepayers), as well as provide socioeconomic benefits to the City of Becker and Sherburne County. However, the Department and staff have noted circumstances that may occur which could result in some risks being shifted onto Xcel's existing ratepayers. Some of these risks could be:

- What if there are project failures at one or both of the wind facilities comprising the sourcing plan during the ten-year term? Will additional, possibly more expensive, renewable energy resources be required to generate sufficient RECs? The argument Xcel made on page 32 of its Petition was that it is justifiable to recover sourcing plan costs from the NSP system through the FCA because the current wind market prices are lower than Xcel's average FCA. If circumstances change, and the sourcing plan costs are higher than the FCA, there is a question of who bears these added costs.
- Relatedly, future renewable energy prices are highly uncertain, and so is the possibility of a REC shortfall, since the REC balance is tied to the uncertain load growth of the data center. Are Xcel's existing customers overly exposed to risk as it pertains to incremental renewable generation?
- The underlying question to both of these (and perhaps other) issues is whether there is a risk that the responsibility for a potential revenue shortfall or discount given to Google could land disproportionately on one group of non-participating customers over another. Xcel may argue (and staff may agree) that there is a sufficient margin for error indicated by the incremental cost analysis to show that, while uncertainties inherently exist, they are appropriately managed, and even under extreme cases, incremental revenues are still highly likely to exceed incremental costs.

Pages 42-45 of the Department's initial comments provide a thorough discussion of risk and how it can be managed. The Department noted that several agreed-upon terms, such as the minimum charge, the ESA's guarantee provisions, and Google's exit fee reasonably mitigate ratepayer risks. The Department also recommended information be updated in Xcel's next rate case and periodic compliance filings.

E. Compliance Filings

One reason for requiring compliance filings is to have the ability to monitor areas where risks exist and, perhaps, remedy previously unforeseen circumstances. This section will not introduce any new suggestions for information regarding a compliance filing, but instead collect

the information suggested by Xcel, the Department, and staff to be able to view them all in one place.

In the previous section, staff suggested the following information on the data center load forecast, RECs, and Strategist analysis for incremental clean energy:

- Require Xcel to provide annual compliance filings providing the most recent data center load forecast, Renewable Energy Credit forecast. Require Xcel to conduct capacity expansion modeling showing the size, type, and timing of any expected incremental renewable energy Xcel might pursue as part of its renewable sourcing plan.

In addition, the Department recommended:

- Require Xcel to make a compliance filing showing how other ratepayers would not be harmed and demonstrating that the change would not result in double recovery of costs.
- Require Xcel to keep the Commission fully informed if the Company exercises options under the agreements.

Xcel also addressed a compliance filing in its Petition, relating to the one-time waiver:

- If additional tariff modifications or waivers are necessary, require the Company to make any such modifications as part of a later compliance filing.

Finally, there is a recommendation in the Department's comments that includes HCTS information. On page 39 of the Department's public initial comments (page 40 of the HCTS version), the Department recommends that, under a particular circumstance, Xcel should make a filing to show ratepayers would not be harmed:

The Department agrees with Xcel that Google's rider revenues would reduce rider costs for other ratepayers. As a result, the Department considers Xcel's rider recovery for Google to be generally reasonable, with two conditions. First, the Department recommends that if Xcel plans to [TRADE SECRET DATA HAS BEEN EXCISED] Xcel should be required to make a filing showing how other ratepayers would not be harmed and support that such a change would not result in double recovery of costs [TRADE SECRET DATA HAS BEEN EXCISED].

Staff asked Xcel if the Company could provide a publicly available decision option that would satisfy the Department's concern above, while protecting highly confidential information. Xcel proposed the following language, which staff supports:

Upon a change to Google's rider rates during the term of the agreement, require Xcel Energy to make a filing showing how other ratepayers would not be harmed and support that such a change would not result in double recovery of costs, and to seek waivers in the event they are required.

VI. Decision Options

Retail Electric Service Agreement (ESA)

- A.1. Approve the ESA (*Xcel*) **AND/OR**
- A.2. Condition approval requiring Xcel to offer similar, renewable sourcing for other large, high load factor customers that commit to bringing new or expanded load of similar size to the Company's system (DOC) **OR**
- A.3. Do not approve the ESA

Ratemaking Treatment

- A.i. Approve cost recovery through the relevant ratemaking mechanism of the costs and expenses associated with obtaining the renewable energy required by the renewable sourcing plan throughout the term of the ESA. (*Xcel*) **OR**
- A.ii. Do not approve this form of cost recovery

Renewable Sourcing Plan

- B.1. Approve the renewable sourcing plan (*Xcel*) **AND/OR**
- B.2. Approve the proposed clean energy plan to use two wind PPAs, one with Dakota Range III, LLC and another to be announced, for purposes of Xcel's energy obligations to Google under the proposed ESA (*Xcel, DOC*) **AND/OR**
- B.3. Approve the proposed clean capacity plan of not adding clean capacity at this time with future additions to be reviewed by the Commission (*Xcel, DOC*) **AND/OR**
- B.4. Approve Xcel's request to "procure the additional renewable resources necessary to comply with its obligations under the ESA" (*Xcel, DOC*) **AND/OR**
- B.2. Approve Xcel's proposed "negative check-off proposal" for future renewable resource acquisitions, on condition that any negative check-off filing by Xcel contain information regarding:
 - a Google-specific renewable energy credit forecast;
 - how the size, type, and timing of the need were determined;
 - the process (request for proposals, informal review, etc.) used for identifying the proposed project and how it was carried out; and
 - Xcel's evaluation of the factors that differentiated the proposed project from others (such as cost, interconnection queue, environmental impact, risks, etc.).(*Xcel, DOC*) **AND/OR**
- B.3. Require Xcel to file annual compliance reports (in the Highly Confidential Trade Secret docket), detailing: (*Staff*)
 - Google's data center annual load and REC forecasts **AND/OR**
 - Strategist modeling data in preparation for additional resource acquisition **OR**
- B.4. Approve the renewable sourcing plan and future acquisition subject to other Commission conditions **OR**
- B.5. Do not approve the renewable resourcing plan.

Ratemaking Treatment

- B.i. Grant a Commission determination that the costs associated with the renewable sourcing plan are recoverable, now and in the future. *(Xcel)* **OR**
- B.ii. Take no action on Xcel's request for a Commission pre-determination that the costs associated with the renewable sourcing plan would be recoverable in the future. *(DOC, Staff)*

Competitive Response Rider (CRR) Agreement

- C.1. Approve the CRR Agreement. *(Xcel, DOC)* **OR**
- C.2. Do not approve the CRR Agreement

Ratemaking Treatment

- C.i. Approve Xcel's request to reflect the difference between the negotiated rate and the standard rate in the test year in a future rate case. *(Xcel, DOC)* **AND/OR**
- C.ii. Require Xcel to provide an updated overall and rate case incremental cost and benefit analysis for costs and revenues related to Google in any future rate case. *(DOC)* **AND/OR**
- C.iii. Require Xcel to provide in future rate cases when Xcel is including costs and revenues related to Google an update to both the overall Incremental Cost and Benefit Analysis and the Rate Case Incremental Cost and Benefit Analysis as recommended in the Department's February 15, 2019 Comments. *(DOC)* **AND/OR**
- C.iv. Require Xcel to make a compliance filing showing that other ratepayers would not be harmed and that changes would not result in double recovery of costs. *(DOC)* **AND/OR**
- C.v. Require Xcel to keep the Commission fully informed in advance if the Company intends to exercise its options under the agreements. *(DOC)* **AND/OR**
- C.vi. Approve Xcel's proposed FCA recovery treatment for Google, with the protection that a net loss would require a review in the annual fuel clause review with a recovery determination made at that time. *(DOC)* **OR**
- C.vii. Make other ratemaking treatment arrangements for the CRR Agreement as the Commission sees fit.
- C.viii. Upon a change to Google's rider rates during the term of the agreement, require Xcel Energy to make a filing showing how other ratepayers would not be harmed and support that such a change would not result in double recovery of costs, and to seek waivers in the event they are required. *(Xcel addition provided to staff.)*

Competitive Response Rider (CRR) Tariff

- D.1. Approve the amendments to the CRR Tariff. *(Xcel)* Approve the proposed CRR Tariff language regarding changing the minimum demand threshold and changing the maximum duration. *(DOC)* **OR**
- D.2. Do not approve the CRR Tariff changes.

Interconnection Agreement (IA)

- E.1. Approve the Interconnection Agreement. *(Xcel)* **AND/OR**



- E.2. Condition approval such that Xcel offers similar interconnection pricing structures to other large, high load factor customers bringing new or expanded load of comparable size. *(DOC)* **OR**
- E.3. Do not approve the Interconnection Agreement.

Ratemaking Treatment

- E.i. Approve Xcel's request for a one-time waiver of Tariff sections (Sections 5.1B, 5.2, and 5.3) requiring the customer to bear the costs of installation or upgrades to interconnection facilities. *(Xcel, DOC)* **OR**
- E.ii. Do not approve the one-time waiver. **AND/OR**
- E.iii. Approve the requested ratemaking treatment of Xcel Energy's costs associated with the facilities used to provide electric service to the Becker data center at transmission voltage. *(Xcel)* Approve Xcel's proposed recovery of the interconnection costs and of Xcel's requested one-time waiver of Xcel's tariff provisions related to customer contributions for the interconnection of Google, require Xcel to make a compliance filing showing how other ratepayers would not be harmed and demonstrating that the change would not result in double recovery of costs. *(DOC)* **OR**
- E.iv. Make other ratemaking treatment arrangements for the Interconnection Agreement as the Commission sees fit.
- E.v. If additional tariff modifications or waivers are necessary, require Xcel to make any such modifications as part of a later compliance filing.

New Renewable Rate Offering

- F.1. 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. *(Fresh Energy, City of Minneapolis)* **AND/OR**
- F.2. Direct Xcel to work with stakeholders to propose a carbon neutral, economic development tariff, with an all-electric requirement or option, to be made available to other customers as well. *(City of Minneapolis)* **OR**
- F.3. Take no action regarding a new renewable rate offering.

Staff Option

- G.1. Require Xcel to provide annual compliance filings providing the most recent data center load forecast and Renewable Energy Credit forecast. Require Xcel to conduct capacity expansion modeling showing the size, type, and timing of any expected incremental renewable energy Xcel might pursue as part of its renewable sourcing plan.
- G.2. Grant authority to the Executive Secretary to set deadlines for the annual compliance filings or any other dates that need to be set.