

August 20, 2025

PUBLIC DOCUMENT

Mike Bull
Interim Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **PUBLIC** Comments of the Minnesota Department of Commerce
Docket No. E-999/CI-24-352

Dear Mr. Seuffert:

Attached are the reply **PUBLIC** comments of the Minnesota Department of Commerce (Department) in the following matter:

*In the Matter of a Commission Investigation into a Fuel Life-Cycle Analysis
Framework for Utility Compliance with Minnesota's Carbon-Free Standard*

The Investigation was initiated by the Minnesota Public Utilities Commission (Commission) on November 7, 2024.

The Department recommends resource eligibility determinations and criteria and standards for the measurement of Carbon-free Standard compliance, and are available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ Sydnie Lieb, Ph.D.
Assistant Commissioner, Office of Regulatory Analysis

SL/AZ/ad
Attachment

Before the Minnesota Public Utilities Commission

PUBLIC Reply Comments of the Minnesota Department of Commerce

Docket No. E-999/CI-24-352

I. INTRODUCTION

The passage of H.F. 7 created the Carbon-free Standard (CFS) in Minnesota, but left implementation of the law to the Minnesota Public Utilities Commission (Commission). The current proceeding addresses the most technically demanding concepts of the law, including a partial carbon-free compliance determination, as required by Minn. Stat. § 216B.1691 subd. 2d(b).

The current proceeding focuses on which resources qualify for CFS compliance and whether they qualify as carbon-free. The determination of carbon-free eligibility is highly dependent upon the modeling choices made within a fuel lifecycle analysis (LCA) study, and the basis of comparison to a counterfactual base case (business-as-usual scenario). Due to the complex nature of energy systems, it may not be clear whether a resource actually lowers emissions compared to the base case. This ambiguity necessitates a rigorous analysis process to determine emissions that result from different energy generation technologies.

Ongoing record development in Docket No. E-999/CI-23-151¹ necessitates that the Minnesota Department of Commerce (Department) re-evaluate positions taken in the current proceeding. These reply comments address necessary recommendation modifications to adapt to the Commission's decisions and statutory requirements.

The Department submits these reply comments without the Minnesota Pollution Control Agency (MPCA).

II. PROCEDURAL BACKGROUND

The Department outlines the following procedural background that is relevant to the current proceeding.

October 31, 2024	The Commission posted its Round 3 Notice of Comment Period in Docket No. E-999/CI-23-151. ²
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¹ The Commission's second order in Docket No. E-999/CI-23-151 from the July 17, 2025 meeting is forthcoming, and informs the Department's Reply Comments.

² *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691*, Notice of Comment Period, October 31, 2024, Docket No. E-999/CI-23-151, (eDockets) [202410-211486-01](https://www.mn.gov/2024/10/31/202410-211486-01).

November 7, 2024	<p>The Commission issues its November 7, 2024 Order in Docket No. E-999/CI-23-151 Initiating New Docket and Clarifying “Environmental Justice Area.” The docket creates the current proceeding.³</p> <p>The notice outlines competing discussion topics with the Commission’s October 31, 2024 Notice of Comment Period in Docket No. E-999/CI-23-151 with regard to net market purchases and additionally bifurcates discussion around the criteria and standards for the measurement of CFS compliance as they relate to full and partial CFS compliance.</p>
January 22, 2025	<p>The Commission posted its Notice of Comment Period (Notice) in the current proceeding.⁴</p>
January 29, 2025	<p>The Department submits its Round 3 Initial Comments in Docket No. E-999/CI-23-151 and makes several recommendations to discuss certain topics in the current proceeding.⁵</p>
March 19, 2025	<p>The MPCA⁶ and the Department⁷ submitted their Round 3 Reply Comments in Docket No. E-999/CI-23-151. The MPCA supported the Department’s interpretation of resource eligibility presented in Table 1 of the Department’s CFS Round 3 Initial Comments,⁸ and the Department submitted a recommendation for the quantification of partial CFS compliance.</p>
June 5, 2025	<p>The MPCA and the Department submitted their Initial Joint Comments in the current docket.⁹</p>

³ *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691*, Order Initiating a new Docket and Clarifying “Environmental Justice Area,” November 7, 2024, Docket No. E-999/CI-23-151, (eDockets) [202411-211701-02](#).

⁴ Notice of Comment Period, January 22, 2025, (eDockets) [20251-214218-01](#).

⁵ *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691*, Minnesota Department of Commerce, Initial Comments, January 29, 2025, Docket No. E-999/CI-23-151, (eDockets) [20251-214567-01](#), (hereinafter “Department CFS Round 3 Initial Comments”).

⁶ *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691*, Minnesota Pollution Control Agency, Reply Comments, March 19, 2025, Docket No. E-999/CI-23-151, (eDockets) [20253-216591-01](#).

⁷ *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691*, Minnesota Department of Commerce, Reply Comments, March 19, 2025, Docket No. E-999/CI-23-151, (eDockets) [20253-216562-01](#), (hereinafter “Department CFS Round 3 Reply Comments”).

⁸ See Section III for a recreation of Table 1.

⁹ Minnesota Pollution Control Agency and Minnesota Department of Commerce, Initial Comments, June 5, 2025, (eDockets) [20256-219638-01](#), (hereinafter “Initial Joint Comments”).

Topic(s) open for comment:

- Definitions of the sources of and requirements for a life-cycle analysis when interpreting the statutory definition of “carbon free” for combusted fuel generation resources without carbon capture that are considered carbon free or receiving partial credit consistent with the November 7, 2024 Order.
- Definitions of the sources of and requirements for a fuel to qualify as sustainable and waste biomass.
- The Partnership on Waste and Energy’s recommendations regarding the scope of the instant docket.
- Development of an accounting methodology to consider energy withdrawn from short-, medium-, and long-duration storage assets.
- Calculating partial compliance based on the net annual generation defined as “carbon-free.”
- Calculating partial compliance for fossil fuel generation with carbon capture and sequestration/storage (CCS) by estimating the total direct carbon dioxide emissions per megawatt-hour (MWh) reduced by the CCS, and applying that percentage to the output of the generation resource employing CCS to determine its carbon-free generation.
- Calculating partial compliance for hydrogen co-firing generation by estimating the direct and indirect emissions of the generation resource per MWh with hydrogen cofiring, compared to the carbon dioxide per MWh that would be emitted if the generator burned only natural gas.
- Whether biomass, renewable natural gas, and solid waste should be eligible as fully or partially carbon-free generation resources based on a fuel life-cycle analysis.
- Calculating partial compliance by generators burning waste materials based on a fuel cumulative life-cycle basis considering greenhouse gas benefits relative to alternative waste management methods.
- The definition and calculation of net market purchases.

III. RELATION TO DOCKET NO. E-999/CI-23-151

On July 17, 2025, the Commission made a motion for Round 3 comments Docket No. E-999/CI-23-151. Among the decision options selected, the Commission selected two decision options that are consequential for the current proceeding:

5. All matters concerning partially compliant facilities will be discussed in the Life-Cycle Analysis Docket, Docket No. E-999/CI-24-352.

Partridge NEW 7A: To calculate the percentage of annual net market purchases that are carbon-free under Minn. Stat. § 216B.1691, subd. 2d(b)(2)(ii), each electric utility shall use the average annual fuel mix associated with the MISO North, Zones 1-7, or the applicable regional fuel mix, after removing from the calculation the carbon-free electricity generated directly by the utility or procured by the utility through power purchase agreements in that year. The utility shall use this calculation to

show partial compliance with the CFS and is not required to retire RECs/AECs for this purpose.¹⁰

IV. DEPARTMENT ANALYSIS

This section reviews how the Commission's decision in Docket No. E-999/CI-23-151 affects the Department's recommendations made in Initial Joint Comments and discusses compliance options to ensure compliance with Minn. Stat. § 216B.1691 and the Commission's decision options. The Department re-examined its positions in Initial Joint Comments to align with the Commission's decision, which led to several modifications of the Department's positions. The Agency Analysis section is divided into two sections. The first section discusses recommendations regarding net market purchase partial compliance under Minn. Stat. § 216B.1691 subd. 2d(b)(ii). The second section discusses recommendations regarding partial emission compliance under Minn. Stat. § 216B.1691 subd. 2d(b)(i).

A. NET MARKET PURCHASE PARTIAL COMPLIANCE

A.1. REC Equality Requirements

The Department's recommendation in Initial Joint Comments was to retire EACs to substantiate Minn. Stat. § 216B.1691 subd. 2d(b)(ii) compliance,¹¹ however the Commission's decision in Docket No. E-999/CI-23-151 specifically directs utilities to calculate Minn. Stat. § 216B.1691 subd. 2d(b)(ii) without energy attribute certificate (EAC)¹² retirements. The Department's recommendation in Initial Joint Comments is no longer viable due to both inconsistency with the Commission's order and with and Minn. Stat. § 216B.1691 subd. 4. Minn. Stat. § 216B.1691 subd. 4 states:

Renewable energy credits.

(a) To facilitate compliance with this section, the commission, by rule or order, shall establish by January 1, 2008, a program for tradable renewable energy credits for electricity generated by eligible energy technology. The credits must represent energy produced by an eligible energy technology, as defined in subdivision 1. Each kilowatt-hour of renewable energy credits must be treated the same as a kilowatt-hour of eligible energy technology generated or procured by an electric utility if it is produced by an eligible energy technology. The program must permit a credit to be used only once, except that a credit may be used to satisfy both the carbon-free energy standard obligation under subdivision 2g and either the renewable energy standard obligation under subdivision 2a or the solar energy standard obligation under subdivision 2f, if the credit meets the

¹⁰ *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691*, Compiled Decision Options, July 16, 2025, Docket No. E-999/CI-23-151, (eDockets) [20257-221044-01](#) at 2-3.

¹¹ Initial Joint Comments at 7.

¹² Also called renewable energy certificates/credits (RECs) in the context of renewable electricity generation.

requirements of each subdivision. The program must treat all eligible energy technology equally and shall not give more or less credit to energy based on the state where the energy was generated or the technology with which the energy was generated. The commission must determine the period in which the credits may be used for purposes of the program.

(b) In lieu of generating or procuring energy directly to satisfy a standard obligation under subdivision 2a, 2f, or 2g, an electric utility may utilize renewable energy credits allowed under the program to satisfy the standard.

(c) The commission shall facilitate the trading of renewable energy credits between states.

(d) The commission shall require all electric utilities to participate in a commission-approved credit-tracking system or systems. Once a credit-tracking system is in operation, the commission shall issue an order establishing protocols for trading credits.

Subdivision 4 ensures that all EACs are treated equally, regardless of where or how the electricity generation occurs. These equality requirements ensure that EACs are tradeable with entities in other states, because the credits provide the same compliance value regardless of the generation technology or its geographic origin.

In re-examining the Department's position, the Department no longer recommends EACs to substantiate net market purchase compliance. Instead, the Department recommends an alternative compliance system that does not rely on EACs, which is outlined in the next section. To illustrate the need for the Department's change in position, consider the following example: A of a 10,000 MWh Minnesota load in 2040 with Minnesota generation as the regional fuel mix. Assume there are ten Minnesota utilities, each with 1,000 MWh of load, and all utilities except one generate 1,000 MWh of carbon-free electricity in Minnesota and meet their CFS obligation. If the last utility were able to purchase 100 percent of its electricity from market purchases, it could receive 1,000 MWh of compliance credit to claim that all of its electricity is carbon-free. In this example, 9,000 EACs have a compliance value of 10,000 MWh, which is 1.11 MWh per EAC. The same logic applies to smaller percentages of net market purchases. Consider a second example where the ten utilities each generate 900 MWh of CFS eligible generation and purchase 100 MWh from net market purchase imports outside of Minnesota, which is a 100 percent carbon-free fuel mix. Now, each utility can receive 100 MWh for double counted generation and achieve 100 percent CFS compliance. In this example, 9,000 EACs again have a value of 1.11 MWh per EAC. In reality, utilities will continue to dispatch CFS-ineligible resources, and the Minnesota mix would not be 100 percent carbon-free, particularly when line losses are factored into the total generation mix. Therefore, utilities would have to make up the shortfall in generation by purchasing EACs from outside of the Minnesota regional mix. When a utility purchases 1 EAC from outside of the Minnesota regional mix, the EAC only provides 1 MWh for CFS compliance. In contrast, the EAC generated within Minnesota is counted twice. The first time is when generation occurs, which generates the EAC, and the second time is when net market purchases count

the same EAC again. Because EACs within the regional mix are double counted, and EACs generated outside of the regional mix are not double counted, net market purchase compliance with EACs violates subdivision 4.

The requirement to double count electricity generation for net market purchases does not preclude compliance for net market purchases, as required by Minn. Stat. § 216B.1691 subd. 2d(b)(ii), but rather precludes the use of EACs for this compliance mechanism. Minn. Stat. § 216B.1691 subd. 4 applies only to EACs, and therefore alternative compliance mechanisms that do not use EACs can be used to substantiate CFS compliance.

A.2. Carbon-free Resources in the Net Market Purchase Fuel Mix

Minn. Stat. § 216B.1691 subd. 2d(b)(ii) requires that the Commission decide on a methodology to determine “the percentage of annual net purchases that is carbon-free.” The Department notes that the rules governing REC equality under Minn. Stat. § 216B.1691 subd. 4 do not apply, because the compliance mechanism necessary for net market purchases cannot use EACs. Therefore, the Commission may allow for the issuance for EACs for certain resources for generation compliance, and disallow compliance credit for the same resources for net market purchase compliance. This feature is necessary if the Commission desires to grant carbon-free status based on the results of a fuel LCA, because fuel LCA studies will likely be impossible to conduct outside the owned and contracted assets of Minnesota utilities. Due to data accessibility constraints, the Department outlines a simplified list of eligible resources that can be easily calculated by any party with publicly available data.

The Department recommends the Commission adopt the following list of resources to be eligible as carbon-free for net market purchase compliance:

- ***Wind***
- ***Solar***
- ***Hydropower (with a nameplate capacity of 100 MW or greater, if built before February 8, 2023)***
- ***Geothermal***
- ***Nuclear***

A.3. Net Market Purchase Fuel Mix

Minn. Stat. § 216B.1691 subd. 2d(b)(ii) requires that the Commission decide the “the regional transmission organization's systemwide annual fuel mix or an applicable subregional fuel mix.” Previously, the Department did not take a position on the resource mix because the Department advocated for the use of EACs to substantiate net market purchase compliance.¹³ However, given the Commission’s decision on July 17, 2025, the Department supports a different approach to meet the CFS compliance. The new approach considers the fuel mix within the whole Midcontinent Independent System Operator (MISO) territory and resolves concerns around use of EACs. The majority of states

¹³ Initial Joint Comments at 7.

within MISO are not bound by 100 percent carbon-free requirements, and therefore have a smaller current and future share of renewable generation in their fuel mixes. Table 1 demonstrates how the choice of fuel mix affects the compliance value of net market purchases. MISO North has an estimated 57.4% of generation in 2024 that is expected to be carbon-free, whereas the whole MISO territory only has 33.7% carbon-free generation in 2024. If MISO North is selected instead of the whole MISO territory, net market purchase compliance will be 70.3% higher for 2024.

Table 1: MISO 2024 Estimated Carbon-free Resource Mix¹⁴

MISO Region	Carbon-free Generation (MWh)	Total Generation (MWh)	% Carbon-free
North	88,553,595	154,390,278	57.4%
Central	78,470,625	292,735,230	26.8%
South	48,007,267	190,876,680	25.2%
All Regions	215,031,487	638,002,188	33.7%

Source: MISO Market Reports¹⁵

Great River Energy (GRE)'s generation mix illustrates how this concept works in practice. GRE's System Forecast Summary expects retail sales of 11,380,511 MWh in 2035, when its CFS compliance requirement is 90 percent.^{16,17} Without market purchases, GRE's carbon-free percentage is **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** percent in 2035. Per decision Option Partridge New 7A, the grid mix with GRE's generation mix removed from MISO North and the whole MISO territory is **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** percent and **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** percent, respectively. If MISO North is used for net market purchase compliance, then GRE could claim **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** MWh for compliance based on the 2024 grid mix, and would raise its compliance to **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** percent. If the whole MISO grid mix is used, GRE could claim **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** MWh for compliance based on the 2024 grid mix, and would raise its compliance to **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** percent. The difference between these fuel mix assumptions is **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** MWh, or **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** percent of GRE's retail sales, which is equivalent to **[TRADE SECRET INFORMATION HAS BEEN EXCISED]** MW of wind generation at a 40 percent capacity factor. This example is for only one utility, and relies on a 2024 grid mix before CFS compliance begins, after which carbon-free generation will be higher in MISO North.

¹⁴ Total of hydropower, nuclear, solar, and wind.

¹⁵ Midcontinent Independent System Operator. Market Reports - Historical Generation Fuel Mix (xlsx). (2025). Available at: [https://www.misoenergy.org/markets-and-operations/real-time--market-data/market-reports/#nt=%2FMarketReportType%3ASummary%2FMarketReportName%3AHistorical%20Generation%20Fuel%20Mix%20\(xlsx\)&t=10&p=0&s=MarketReportPublished&sd=desc](https://www.misoenergy.org/markets-and-operations/real-time--market-data/market-reports/#nt=%2FMarketReportType%3ASummary%2FMarketReportName%3AHistorical%20Generation%20Fuel%20Mix%20(xlsx)&t=10&p=0&s=MarketReportPublished&sd=desc)

¹⁶ Line Losses removed from "Total Energy" column. See Appendix C – Table 7. *In the Matter of Great River Energy's 2023-2037 Integrated Resource Plan*, Integrated Resource Plan – Appendix C, March 31, 2023, Docket No. ET-2/RP-22-75, (eDockets) [20233-194396-05](#) at 22, (hereinafter "GRE 2023-2037 IRP – Appendix C")

¹⁷ Data from GRE 2023-2037 IRP – Appendix C at 22 and *In the Matter of Great River Energy's 2023-2037 Integrated Resource Plan*, GRE Trade Secret Response to DOC Information Requests 2-8, June 28, 2023, Docket No. ET-2/RP-22-75, (eDockets) [20236-196439-01](#) at 5.

If the Commission chooses MISO North, Local Resource Zone (LRZ) 1, or Minnesota for the regional mix, the Commission will provide an extra incentive to build less carbon-free generation, because utilities can each free ride off each other to claim carbon-free compliance for generation that they neither generated nor purchased. A smaller grid mix will result in a watering down of the state's landmark climate policy and will stifle economic investment in the state. As outlined in Section A.1, if the Minnesota fuel mix is selected, then utilities could achieve nearly 100 percent CFS compliance with a 90 percent carbon-free load match.¹⁸ Converse to EACs, the more utilities rely on net market purchase compliance, the less carbon-free generation gets built, which results in higher carbon emissions. Therefore, the use of net market purchase compliance should be kept to a minimum.

The Department modifies its Initial Joint Comment recommendation J.1 as follows:

The Department recommends the Commission order the following requirements for net market purchases:

- A. Net market purchases are defined as total retail electric sales minus electricity generation, minus specified electric purchases. Net market purchases only occur when electricity generation and specified electric purchases are lower than total retail electric sales; and***
- B. The whole MISO territory fuel mix for compliance calculations.***
- ~~C. If residual mix accounting is required, MISO Local Resource Zone 1 shall be used to determine the number of available residual EACs.~~***

To streamline the Department's preferred fuel mix, the Department modifies recommendation B.1 as follows:

The Department recommends the Commission order:

- A. All claims of carbon-free electricity used in a lifecycle analysis must include hourly matching for CFS-eligible generation sources;***
- B. The utility must specify the source of carbon-free electricity; and***
- C. If a utility does not propose carbon-free electricity, the utility should use the whole MISO territory ~~Local Resource Zone 1~~ annual grid emissions.***

B. PARTIAL EMISSION COMPLIANCE

This section discusses partial compliance for resources that do not meet the requirements of the statutory definition of carbon-free. The Department's positions in its Initial Comments recommended that resources with partial emissions qualify for partial compliance.¹⁹ This section addresses several changes to the Department's recommendations regarding partial compliance.

¹⁸ This example would require each utility to obtain 10% of its load requirement from MISO net market purchase imports to achieve this level of compliance.

¹⁹ See Initial Joint Comments at 17-18.

B.1. Definition of carbon-free and Partial compliance

Minn. Stat. § 216B.1691 subd. 1(b) states:

"Carbon-free" means a technology that generates electricity without emitting carbon dioxide.

The definition of carbon-free is used in Minn. Stat. § 216B.1691 subd. 2d and 2g, which state:

Subd. 2d. Commission order.

(a) The commission shall issue necessary orders detailing the criteria and standards used to: (1) measure an electric utility's efforts to meet the standards under subdivisions 2a, 2f, and 2g; and (2) determine whether the utility is achieving the standards.

(b) In the order under paragraph (a), the commission shall include criteria and standards that: (1) protect against undesirable impacts on the reliability of the utility's system and economic impacts on the utility's ratepayers and that consider technical feasibility; and (2) require the commission to allow for partial compliance with subdivision 2g from:

(i) electricity generated from facilities that utilize **carbon-free** technologies for electricity generation, but only for the percentage that is **carbon-free**; and

(ii) an electric utility's annual purchases from a regional transmission organization net of the electric utility's sales to the regional transmission organization, but only for the percentage of annual net purchases that is **carbon-free**, which percentage the commission must calculate based on the regional transmission organization's systemwide annual fuel mix or an applicable subregional fuel mix.

Subd. 2g. Carbon-free standard.

In addition to the requirements under subdivisions 2a and 2f, each electric utility must generate or procure sufficient electricity generated from a **carbon-free** energy technology to provide the electric utility's retail customers in Minnesota, or the retail customers of a distribution utility to which the electric utility provides wholesale electric service, so that the electric utility generates or procures an amount of electricity from **carbon-free** energy technologies that is equivalent to at least the following standard percentages of the electric utility's total retail electric sales to retail customers in Minnesota by the end of the year indicated: [emphasis added]

As Commission staff explained in the CFS Round 2 Briefing Papers in Docket No. E-999/CI-23-151, the statutory definition of “carbon-free” may be subject to multiple interpretations.²⁰ Under a narrow interpretation, a carbon-free determination can be made only at the time of generation. Hydrogen generation from natural gas would qualify for CFS compliance because no emissions are made at the time of generation. Conversely, biomass-based generation that can demonstrate net zero carbon emissions over a defined period of time would be disqualified due to the presence of carbon emissions during electricity generation. As Commission staff noted, this narrow interpretation would be “difficult to apply in situations such as fossil fuel generation with CCS, hydrogen, biomass, and other complex fuels.”²¹ A broader interpretation would allow for a determination as to whether a technology generates electricity without emitting carbon dioxide by considering the full life cycle of the technology. This interpretation is reasonable in light of the noted challenges in the determination of net carbon emissions for positive or negative emissions that occur before and after electricity generation. Because the statutory intent of the CFS is to lower carbon emissions, a broader determination of carbon-free is the most appropriate interpretation of the definition. This interpretation allows the Commission to make a carbon-free determination based upon the results of a fuel LCA that includes upstream and downstream emissions. The methodology used to conduct the fuel LCA is open ended, and requires additional considerations about the scope of fuel LCA studies.

Minn. Stat. §216B.1691 subd. 2d(b)(i) clearly allows for carbon-free status to be determined with contemporaneous carbon emissions, for example with hydrogen co-firing with natural gas generation. In this example, the portion of emissions resulting from gas generation are not carbon-free, and do not count towards CFS compliance, but also do not disqualify the hydrogen from being counted for CFS compliance. The percentage of electricity generation that is carbon-free is determined based on the percentage of total electricity generation from hydrogen compared to total electricity generation. The CFS is a load-based standard, and does not apply to all utility generation. Therefore, carbon emissions that are additional to the CFS requirement are allowable, as outlined in this paragraph.

The Department’s positions in Initial Joint Comments were based on an understanding that carbon-free status would be determined based on avoided emissions. The definition of carbon-free does not allow for “the percentage [of electricity generation] that is carbon-free” to be determined, because a percentage cannot be derived from zero emissions. Instead, the Department assumed that carbon-free status is the absence of emissions, consistent with the Department’s position to use EACs for net market purchase compliance in CFS Round 3 comments.²² Avoided emissions require a baseline emission to avoid, which is consistent with the Greenhouse Gas Protocol practice to report average grid emissions for Scope 2 electricity consumption, unless EACs are retired to avoid the reporting of the average grid emissions.²³

²⁰ *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691*, Minnesota Public Utilities Commission, Briefing Papers, September 12, 2024, Docket No. E-999/CI-23-151, (eDockets) [20249-210176-01](#) at 11-43.

²¹ *Id.*, at 25.

²² Department CFS Round 3 Initial Comments at 24.

²³ Sotos, Mary. *GHG Protocol Scope 2 Guidance*. World Resources Institute, (N.D.). At 49-51. Available at: <https://ghgprotocol.org/sites/default/files/2023-03/Scope%20%20Guidance.pdf>

Double counting in net market purchases is not compatible with avoided emissions, because the “percentage of annual net purchases that is carbon-free” cannot avoid its own emissions to determine carbon-free electricity. Therefore, the determination of carbon-free status for net market purchases requires use of known carbon-free resources to determine the percentage, without the use of EACs or avoided emissions, which is reflected in the Department’s recommendation for net market purchase compliance in the previous section.

Based on a review of carbon-free status for net market purchases, the Department found that it erroneously applied avoided emissions to the determination of carbon-free status in Minn. Stat. § 216B.1691 subd. 2d(b)(i). While it can be inferred that “the percentage that is carbon-free” could be applied to partially emitting generation, such as natural gas generation with partial carbon capture and sequestration (CCS), it cannot be inferred that the definition of carbon-free can change. Carbon-free status requires zero emissions, and any net emission of carbon dioxide disqualifies all generation from the carbon-free determination. Carbon-free requires a binary determination that electricity generation either emits ≤ 0 g CO₂ / MWh, or the generation is not carbon-free. Due to this strict limitation, an upper bound of 100 percent carbon-emitting electricity cannot be set because any emissions associated with electricity generation remove the generation’s carbon-free status. A carbon capture rate of 99 percent and 1 percent are equally carbon-emitting under that statutory definition of carbon-free.

The Department’s change in position does not undermine the use of fuel LCA to determine carbon-free status. The use of fuel LCA is performed to determine net carbon emissions over a defined study period, as allowed or set by the Commission. The result of the fuel LCA study is then used to determine if electricity generation meets the statutory definition of carbon-free or not. Minn. Stat. § 216B.1691 subd. 2d(b)(i) can then only be used for a co-fire of a carbon-free resource and any partially emitting resource. The use of a compliance instrument based on partial EACs, as originally proposed by the Department in CFS Round 3 Reply Comments,²⁴ is also incompatible with the definition of carbon-free. The carbon-free determination precludes electricity generation from all electricity generation that does not meet the definition of carbon-free. The only appropriate use case of Minn. Stat. § 216B.1691 subd. 2d(b)(i) is the co-generation of a fully carbon-free resource with any resource that does not meet the definition of carbon-free.

Under Minn. Stat. § 216B.1691 subd. 2d(b)(i), natural gas with partial CCS is difficult to qualify as carbon-free, because the total system emits carbon-dioxide. However, given the legislative intent²⁵ and state energy goals, it is possible to make a statutory argument to qualify partial CCS under Minn. Stat. § 216B.1691 subd. 2d(b)(i). In order to qualify CCS, the power plant must be treated as a co-fire, similar to a power plant burning green hydrogen with natural gas. The first “fuel” is carbon-free gas, covered by the carbon-capture system. Regardless of how much gas is burned, the carbon-free gas is treated as zero-emission. The second “fuel” is standard natural gas, which is fully emitting. The “percentage that is carbon-free” is determined based on the energy output of the carbon-free gas and

²⁴ Department CFS Round 3 Reply Comments at 8.

²⁵ Minnesota Center for Environmental Advocacy (“MCEA”) and the Sierra Club, Initial Comments, June 5, 2025, (eDockets) [20256-219637-01](#) at 16-17.

the standard natural gas on an MMBtu basis, similar to how hydrogen co-firing works. In practice, the MMBtus of the co-fire are blended, and thus the percent carbon capture rate can be used as a proxy for total MMBtus from each fuel source. This system normalizes for parasitic load from the CCS and ensures that the carbon-free percentage of natural gas with partial CCS reflects energy output and not simply the carbon capture percentage at the time of electricity generation, which would underestimate emissions per MWh due to increased fuel burn to provide the same MWh as an unabated power plant.

The Department does not make a formal recommendation for CCS compliance in this section, because the recommendation was made in Initial Joint Comments - Appendix A, and remains unchanged.

The Department notes the following changes to its recommendations in Appendix A:

- The “Baseline” column is removed.
- The “Partial EACs Awarded?” column is removed.
- The “0 EAC Cutoff” column is removed.
- A new column “Requires an LCA Study?” is added for clarification of study requirements.
- Nuclear – Added to the CFS eligible technology list.
- All Other Hydrogen Production – Not eligible for CFS compliance.
- Hydrogen-Only Generation With Partially Emitting Hydrogen – Not eligible for CFS compliance.
- Co-Firing With Partially Carbon-free Resource – Not eligible for CFS compliance.
- Net Market Purchases – Removed EAC requirement.

B.2. Measurement of CFS Compliance for Partially Emitting Resources

The Department refers to the Department CFS Round 3 Reply Comments for its recommendation regarding the determination of CFS compliance for partially emitting resources.²⁶ The recommendation made in the Department CFS Round 3 Reply Comments is modified to fit the current docket and to reflect the revision in partial compliance eligibility.

The Department recommends the Commission order:

- A. EACs be issued equivalent to metered generation on a per MWh basis;***
- B. A single REC be issued for all generation that may be retired to demonstrate both EETS and CFS compliance;***
- C. A carbon-free allocator, which defines the percentage of CFS eligible generation, must be used for any generation facility that is partially CFS compliant; and***
- D. For all generation made in a CFS partial compliant facility that is not eligible for the EETS, metered generation in A. shall be multiplied by C. to determine the whole number of AECs to issue that are only eligible for the CFS.***

²⁶ Department CFS Round 3 Reply Comments at 5-8.

B.3. System Boundaries in Fuel Lifecycle Assessment

The Department address three issues regarding system boundaries in fuel LCA studies. First, greenhouse gasses that are not carbon dioxide should qualify for inclusion in fuel LCA studies. While carbon dioxide can act as a fertilizer²⁷ and causes ocean acidification,²⁸ the primary purpose of the CFS is to reduce the effects of global warming. All greenhouse gasses should be quantified within a fuel LCA study to determine the total carbon dioxide equivalent emissions because the goal of the CFS is to reduce the effects of global warming.

The Department recommends the Commission order all relevant greenhouse gasses be quantified in fuel LCA studies.

In Initial Joint Comments, the Department recommended an LCA study period of “[a]t least 100 years to account for new biogenic growth and emission tails of decaying debris” for waste biomass.²⁹ The US Environmental Protection Agency (EPA) defines biogenic emissions as “CO₂ emissions related to the natural carbon cycle, as well as those resulting from the combustion, harvest, combustion, digestion, fermentation, decomposition, or processing of biologically based materials.”³⁰ While the Appendix reflects the intention to include the biogenic emission carbon cycle within the LCA system boundaries, the Department seeks to clarify the eligibility of the biogenic emission carbon cycle for LCA studies. Without inclusion of the biogenic emission carbon cycle, for example, waste woody biomass derived from sustainable forestry practices would only be counted as an emission. Forest regrowth to reabsorb carbon would not be counted in the LCA system boundaries without an explicit inclusion of carbon reabsorption.

The Department recommends the Commission order the biogenic emission carbon cycle to be included for all relevant LCA studies.

With the change in the Department’s recommendations, there is a need to change the system boundaries of the fuel LCA studies. In Initial Joint Comments,³¹ the Department outlined a number of baseline emissions factors to determine the carbon-free percentage of emissions. The Department’s new recommendation is for 0 g CO₂e / MWh to be used as the cutoff for carbon-free status for all resources. The Department still regards these baselines as essential for carbon emissions accounting, and need to be factored in elsewhere.

²⁷ Cho, Renée. *How Climate Change Will Affect Plants*. Lamont-Doherty Earth Observatory – Columbia Climate School. (January 27, 2022). Available at: <https://lamont.columbia.edu/news/how-climate-change-will-affect-plants>

²⁸ National Oceanic and Atmospheric Administration. *Ocean Acidification*. (February 25, 2025). Available at: <https://www.noaa.gov/education/resource-collections/ocean-coasts/ocean-acidification>

²⁹ See Joint Initial Comments - Appendix A.

³⁰ US Environmental Protection Agency. *Carbon Dioxide Emissions Associated with Bioenergy and Other Biogenic Sources*. (N.D.). Available at: <https://19january2017snapshot.epa.gov/climatechange/carbon-dioxide-emissions-associated-bioenergy-and-other-biogenic-sources.html>

³¹ See Joint Initial Comments - Appendix A.

The most appropriate place to include alternative baseline emissions is within the fuel LCA study. The logic to include baseline avoided emissions within an LCA study is simple. There is a business-as-usual base case where a feedstock is not used to generate electricity. If carbon-free electricity generation were to cease or begin, there is a quantifiable increase or decrease in emissions that result from the change in electricity generation. If the emissions from a fuel LCA study of electricity generation with the feedstock are less than or equal to the emissions of the base case, then the marginal addition of the electricity has either negative emissions or no emissions associated with the electricity generation, and should qualify as carbon-free.

Because the baselines are subject to change, the Department does not prescribe specific baselines for which to calculate avoided emissions within a fuel LCA study. For example, if the current minimum practice of municipal solid waste management is landfilling but a future practice removes organics from the municipal solid waste stream, resulting in lower emissions from landfills, then the LCA study should be able to adapt its baselines to reflect evolving standard practices. The Department prefers that utilities provide both the quantification methodology and the avoided emissions base case, which shall be subject to review, as appropriate. In addition, should a utility be able to demonstrate the carbon-free status of a facility's electricity generation without use of avoided emissions, an avoided emissions study should not be required.

The Department recommends the Commission order utilities to develop their own avoided emissions base case scenarios, as appropriate, to use in a fuel LCA study.

Finally, in Initial Joint Comments, the Department proposed to quantify avoided grid emissions.³² The Department's baseline grid emission was used because partial emission compliance requires a baseline for 100 percent carbon-emitting electricity, which is avoided by the partially emitting electricity generation. The Department recommended several baselines that were not grid emissions, and thus the addition of avoided electricity was appropriate to capture the effect of not generating electricity from natural gas, for example, particularly because Minn. Stat. § 216B.1691 subd. 2d(b)(i) allows for emissions during electricity generation. The baseline avoided grid emission would be used outside of the LCA study to determine the carbon-free percentage. However, with the withdrawal of the Department's recommendation to allow for partial emission compliance determinations, avoided electricity emissions no longer work because there is no alternative baseline grid emission to avoid in a carbon-free determination. Thus, the Department withdraws its recommendations to include avoided grid emissions.³³

B.4. Partially Compliant Input Energy in Secondary Processes

In Initial Joint Comments, the Department made two recommendations regarding the treatment of partially emitting electricity used to generate electricity in a secondary process.³⁴ These recommendations pertain to accurately accounting for partial emissions that may get propagated

³² *Id.*

³³ These recommendations were made in Initial Joint Comments - Appendix A, and are reflected in the updated Appendix A.

³⁴ Joint Initial Comments at 10 and 18.

through energy losses to generate electricity from resources such as hydrogen. With the withdrawal of the Department's recommendations for partial emission compliance, there is only one remaining concern regarding the co-firing of a fully carbon-free resource with a carbon-emitting resource used in a secondary process. The secondary process pertains to the fuel used to generate hydrogen, which is then co-fired. There is no use case to apply co-fired generation to generate hydrogen again, and therefore the Department's recommendations are no longer needed. The Department withdraws the following recommendations:

- B.3. The Department recommends the Commission order all partially compliant input energy claims in a secondary process to use the total output electricity of the partially compliant resource and to use the carbon-free allocator to determine the percentage of carbon-free electricity.
- G.1. The Department recommends the Commission order the following requirements for the base case emissions of a generation facility the burns any amount of partially carbon-free resources mixed with any other fuel:
 - A. The base case emissions shall be derived from the primary fuel source that is displaced by the partially carbon-free electricity; and
 - B. If the primary fuel source is partially carbon-free, the base case shall be the base case used to determine the carbon-free percentage of the primary resource.

V. DEPARTMENT RECOMMENDATIONS

Based on the Department's analysis and the information in the record, the Department has prepared recommendations, which are provided below and in Appendix A. The recommendations correspond to the subheadings of Section IV above, and additional recommendations are included in Appendix A.

B. GENERAL CRITERIA AND STANDARDS FOR PARTIAL COMPLIANCE

- B.1. The Department recommends the Commission order:
 - A. All claims of carbon-free electricity used in a lifecycle analysis must include hourly matching for CFS-eligible generation sources;
 - B. The utility must specify the source of carbon-free electricity; and
 - C. If a utility does not propose carbon-free electricity, the utility should use the whole MISO territory annual grid emissions.
- B.2. The Department recommends the Commission order for all electricity generation processes subject to lifecycle analysis requirements in which the primary electricity input energy is greater than 25 percent of output energy:
 - A. The utility must submit annual documentation with its CFS compliance filing to demonstrate hourly matching of carbon-free electricity generation; and
 - B. The utility must plan new carbon-free resources to match all new electricity generation.

- B.4. The Department recommends the Commission order the following requirements for the re-evaluation of lifecycle emissions studies:
 - A. For existing assets, lifecycle emissions shall be evaluated no sooner than every five years; and
 - B. For new capital projects, lifecycle emissions shall be evaluated no sooner than after the capital project is fully depreciated.
 - B.5. The Department recommends the Commission order the following requirements for the fuel source of any resource subject to lifecycle analysis requirements:
 - A. Utilities must report the composition of the fuel mix compared to the modeled lifecycle analysis in the annual CFS compliance filing; and
 - B. If any fuel mix deviates by more than ten percent, the utility must submit a new or revised lifecycle analysis and issue a new carbon-free percentage, if applicable.
 - The Department recommends the Commission order:
 - A. EACs be issued equivalent to metered generation on a per MWh basis;
 - B. A single REC be issued for all generation that may be retired to demonstrate both EETS and CFS compliance;
 - C. A carbon-free allocator, which defines the percentage of CFS eligible generation, must be used for any generation facility that is partially CFS compliant; and
 - D. For all generation made in a CFS partial compliant facility that is not eligible for the EETS, metered generation in A. shall be multiplied by C. to determine the whole number of AECs to issue that are only eligible for the CFS.
 - B.6. The Department recommends the Commission order all relevant greenhouse gasses be quantified in fuel LCA studies.
 - B.7. The Department recommends the Commission order the biogenic emission carbon cycle to be included for all relevant LCA studies.
 - B.8. The Department recommends the Commission order utilities to develop their own avoided emissions base case scenarios, as appropriate, to use in a fuel LCA study.
- D. DEFINITIONS OF THE SOURCES OF AND REQUIREMENTS FOR A FUEL TO QUALIFY AS SUSTAINABLE AND WASTE BIOMASS.*
- D.1. The Department recommends the Commission establish a working group to determine the standards necessary to verify that waste biomass qualifies and ensures compliance under the definition established by the Commission.

E. DEVELOPMENT OF AN ACCOUNTING METHODOLOGY TO CONSIDER ENERGY WITHDRAWN FROM SHORT-, MEDIUM-, AND LONG-DURATION STORAGE ASSETS.

- E.1. The Department recommends the Commission order energy storage assets be treated as load for CFS compliance purposes, unless storage assets are used to substantiate hourly matching requirements. In order to qualify storage assets for CFS eligibility, the asset must:
 - A. Retire hourly EACs to match charging from fully CFS-eligible resources; and
 - B. Generate hourly EACs to match discharging.

G. CALCULATING PARTIAL COMPLIANCE FOR HYDROGEN CO-FIRING GENERATION BY ESTIMATING THE DIRECT AND INDIRECT EMISSIONS OF THE GENERATION RESOURCE PER MWH WITH HYDROGEN COFIRING, COMPARED TO THE CARBON DIOXIDE PER MWH THAT WOULD BE EMITTED IF THE GENERATOR BURNED ONLY NATURAL GAS.

- None

J. THE DEFINITION AND CALCULATION OF NET MARKET PURCHASES.

- J.1. The Department recommends the Commission order the following requirements for net market purchases:
 - A. Net market purchases are defined as total retail electric sales minus electricity generation, minus specified electric purchases. Net market purchases only occur when electricity generation and specified electric purchases are lower than total retail electric sales; and
 - B. The whole MISO territory fuel mix for compliance calculations.
- J.2. The Department recommends the Commission adopt the following list of resources to be eligible as carbon-free for net market purchase compliance:
 - Wind
 - Solar
 - Hydropower (with a nameplate capacity of 100 MW or greater, if built before February 8, 2023)
 - Geothermal
 - Nuclear

Attachments

Technology / Feedstock	Definition	Eligible for CFS Compliance? (Y/N/Other)	Requires an LCA Study?	Method of GHG Quantification (Specify Model or Generic Method)	LCA Study Period (Yrs)
CCS (All)	Fossil fuel generation from any source, coupled with carbon capture, sequestration, and storage.	Yes	No	Output MWh & CO ₂ captured (as measured)	N/A
Primary Biomass	Biomass that is intentionally cultivated, harvested, and prepared for use, in whole or in part, as a fuel for the generation of electricity. As farm-grown closed-loop biomass as defined in Minn. Stat. § 216B.2424 subd. 1(a)(1).	No	N/A	N/A	N/A
Waste Biomass	Biomass derived from secondary activities including but not limited to: <ul style="list-style-type: none"> wood waste from storm damage, disease or infestation, utility line maintenance, waste from forest products manufacturing, agricultural activities including manure food waste and other organic waste. 	Yes	Yes	Argonne GREET, EPA WARM & LandGEM, and other models as approved by the Commission.	At least 100 years to account for new biogenic growth and emission tails of decaying debris.
Waste to Energy	Energy derived from solid waste as defined by Minn. Stat. § 116.06 subd. 22.	Yes	Yes	Argonne GREET, EPA WARM & LandGEM, and other models as approved by the Commission.	At least 100 years to account for emission tails of waste decaying in landfills.
Geothermal	Electricity derived from heat below earth's surface.	Yes	No	N/A	N/A
Nuclear	Electricity derived from nuclear fission.	Yes	No	N/A	N/A
Green or Pink	Hydrogen generated from wind, solar, hydropower, geothermal, or nuclear energy.	Yes: With EACs from incremental	No	N/A	N/A

Hydrogen Production	<u>This section does not include electricity generation.</u>	generation in an IRP / procurement decision			
White Hydrogen Production	Geologically mined hydrogen. <u>This section does not include electricity generation.</u>	Yes	No	N/A	N/A
All Other Hydrogen Production	Any hydrogen that uses a primary emitting fuel source, including non-incremental sourced energy and unspecified grid electricity. <u>This section does not include electricity generation.</u>	No	N/A	N/A	N/A
Hydrogen-Only Generation With Green, Pink or White Hydrogen	Electricity derived from combustion or a fuel cell, where hydrogen, or any of its derivatives, are the only fuel source used for electricity generation and where the fuel source is green, pink, or white hydrogen.	Yes	No	N/A	N/A
Hydrogen-Only Generation With Partially Emitting Hydrogen	Electricity derived from combustion or a fuel cell, where hydrogen, or any of its derivatives, are the only fuel source used for electricity generation and where the fuel source is partially-emitting hydrogen.	No	No	N/A	N/A
Co-Firing With Fully Carbon-free Resource	Mixed combustion with at least 2 fuels, one of which is fully-carbon-free.	Yes	No	Engineering analysis of percent of output electricity that is carbon-free.	N/A
Co-Firing With Partially	Mixed combustion with at least 2 fuels, at least one of which is partially-carbon-free.	No	No	N/A	N/A

Carbon-free Resource					
Energy Storage	Includes all technologies that store electricity generation to discharge at a later time.	Other: When coupled with a carbon-free resource and hourly matching.	No	N/A	N/A
Net Market Purchases	Net Market Purchases = Total Retail Electric Sales – Electricity Generation – Specified Electric Purchases	Yes	No	N/A	N/A

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce
Public Reply Comments**

Docket No. E999/CI-24-352

Dated this **20th** day of **August 2025**

/s/Sharon Ferguson

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69	James	Denniston	james.r.denniston@xcelenergy.com	Xcel Energy Services, Inc.		414 Nicollet Mall, 401-8 Minneapolis MN, 55401 United States	Electronic Service		No	24-352Official
70	Bobby	Deschampe	robertdeschampe@grandportage.com	Grand Portage Band of Lake Superior Chippewa		PO Box 428 Grand Portage MN, 55605 United States	Electronic Service		No	24-352Official
71	Curt	Dieren	curt.dieren@dgr.com	L&O Power Cooperative		1302 S Union St Rock Rapids IA, 51246 United States	Electronic Service		No	24-352Official
72	Kami	Diver	kamidiver@fdlrez.com	Fond du Lac Band of Lake Superior Chippewa		1720 Big Lake Road Cloquet MN, 55720 United States	Electronic Service		No	24-352Official
73	Becky	Dobbs	bdobbs@grenergy.com			null null, null United States	Electronic Service		No	24-352Official
74	J.	Drake Hamilton	hamilton@fresh-energy.org	Fresh Energy		408 St Peter St Ste 350 Saint Paul MN, 55101 United States	Electronic Service		No	24-352Official
75	Shane	Drift	sdrift@boisforte-nsn.gov	Bois Forte Band of Chippewa		Bois Forte Tribal Government 5344 Lakeshore Drive Nett Lake MN, 55772 United States	Electronic Service		No	24-352Official
76	Adam	Duininck	aduininck@ncsrcc.org	North Central States Regional Council of Carpenters		700 Olive Street St. Paul MN, 55130 United States	Electronic Service		No	24-352Official
77	Kristin W	Duncanson	kw.duncanson@gmail.com			57746 Highway 30 Mapleton MN, 56065 United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
78	Wally	Dupuis	wallydupuis@fdlband.org	Fond du Lac Band of Lake Superior Chippewa		1720 Big Lake Road Cloquet MN, 55720 United States	Electronic Service		No	24-352Official
79	Kevin	Dupuis, Sr.	kevindupuis@fdlrez.com			Reservation Business Committee 1720 Big Lake Rd Cloquet MN, 55720 United States	Electronic Service		No	24-352Official
80	Brian	Edstrom	briane@cubminnesota.org	Citizens Utility Board of Minnesota		332 Minnesota St Ste W1360 Saint Paul MN, 55101 United States	Electronic Service		No	24-352Official
81	Jamie	Edwards	jamie.edwards@millelacsband.com	Mille Lacs Band of Ojibwe		43408 Oodena Drive Onamia MN, 56358 United States	Electronic Service		No	24-352Official
82	Kristen	Eide Tollefson	healingsystems69@gmail.com	R-CURE		28477 N Lake Ave Frontenac MN, 55026-1044 United States	Electronic Service		No	24-352Official
83	Michael	Fairbanks	michael.fairbanks@whiteearth-nsn.gov	White Earth Reservation Business Committee		PO Box 418 White Earth MN, 56591 United States	Electronic Service		No	24-352Official
84	John	Farrell	jfarrell@ilsr.org	Institute for Local Self-Reliance		2720 E. 22nd St Institute for Local Self-Reliance Minneapolis MN, 55406 United States	Electronic Service		No	24-352Official
85	Sharon	Ferguson	sharon.ferguson@state.mn.us		Department of Commerce	85 7th Place E Ste 280 Saint Paul MN, 55101-2198 United States	Electronic Service		No	24-352Official
86	Terri	Finn	terri.goggleye@llojibwe.net			null null, null United States	Electronic Service		No	24-352Official
87	Mike	Fiterman	mikefiterman@libertydiversified.com	Liberty Diversified International		5600 N Highway 169 Minneapolis MN, 55428-3096 United States	Electronic Service		No	24-352Official
88	Christine	Fox	cfox@itasca-mantrap.com	Itasca-Mantrap Coop. Electric Assn.		PO Box 192 Park Rapids MN, 56470 United States	Electronic Service		No	24-352Official
89	Lucas	Franco	lfranco@liunagroc.com	LIUNA		81 Little Canada Rd E Little Canada MN, 55117 United States	Electronic Service		No	24-352Official
90	Ronald J.	Franz	ronald.franz@dairylandpower.com	Dairyland Power Cooperative		3200 East Ave S PO Box 817 La Crosse WI, 54602-0817 United States	Electronic Service		No	24-352Official
91	Nathan	Franzen	nathan@nationalgridrenewables.com	Geronimo Energy, LLC		8400 Normandale Lake Blvd Ste 1200 Bloomington	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						MN, 55437 United States				
92	Gary	Frazer	gfrazier@mnchippewatribe.org	Minnesota Chippewa Tribe		PO Box 217 Cass Lake MN, 56633 United States	Electronic Service		No	24-352Official
93	Barb	Freese	bfreese@mncenter.org	Minnesota Center for Environmental Advocacy		1919 University Ave W Ste 515 Saint Paul MN, 55104-3435 United States	Electronic Service		No	24-352Official
94	Christopher	Friez	christopher.friez@nacco.com	NACCO Natural Resources/North American Coal		918 E. Divide Ave., Suite 200 Bismarck ND, 58501 United States	Electronic Service		No	24-352Official
95	Stacey	Fujii	sfujii@grenergy.com	Great River Energy		12300 Elm Creek Boulevard Maple Grove MN, 55369-4718 United States	Electronic Service		No	24-352Official
96	Jessica	Fyhrie	jfyhrie@otpc.com	Otter Tail Power Company		PO Box 496 Fergus Falls MN, 56538-0496 United States	Electronic Service		No	24-352Official
97	Edward	Garvey	garveyed@aol.com	Residence		32 Lawton St Saint Paul MN, 55102 United States	Electronic Service		No	24-352Official
98	Benjamin	Gerber	ben@mrets.org	Midwest Renewable Energy Tracking System		60 South Sixth Street Suite 2800 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
99	David P.	Geschwind	dp.geschwind@smmpa.org	Southern Minnesota Municipal Power Agency		500 First Avenue SW Rochester MN, 55902 United States	Electronic Service		No	24-352Official
100	Shannon	Geshick	shannon.geshick@state.mn.us	Minnesota Indian Affairs Council (MIAC)		null null, null United States	Electronic Service		No	24-352Official
101	Allen	Gleckner	gleckner@fresh-energy.org	Fresh Energy		408 St. Peter Street Ste 350 Saint Paul MN, 55102 United States	Electronic Service		No	24-352Official
102	Jenny	Glumack	jenny@mrea.org	Minnesota Rural Electric Association		11640 73rd Ave N Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
103	Julie	Goehring	julie@redriverbasincommission.org			708 70 Ave NW Moorhead MN, 56560 United States	Electronic Service		No	24-352Official
104	Todd J.	Guerrero	todd.guerrero@kutakrock.com	Kutak Rock LLP		Suite 1750 220 South Sixth Street Minneapolis MN, 55402-1425 United States	Electronic Service		No	24-352Official
105	Tessa	Haagenson	tessa.haagenson@connexusenergy.com	Connexus Energy		14601 Ramsey Blvd NW Ramsey MN,	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						55303 United States				
106	Jeffrey	Haase	jhaase@grenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
107	Laura	Haight	lhaight@pfpi.net	Partnership for Policy Integrity		POB 2513 Amherst MA, 01004 United States	Electronic Service		No	24-352Official
108	Hal	Halpern	halhalpern@clpower.com	Cooperative Light & Power		1554 Hwy 2 PO Box 69 Two Harbors MN, 55616 United States	Electronic Service		No	24-352Official
109	Jeremy	Hamilton	jhamilton@uppersiouxcommunity-nsn.gov	Upper Sioux Community		Upper Sioux Community PO Box 147 Granite Falls MN, 56241 United States	Electronic Service		No	24-352Official
110	David A.	Hansen	hansen@federatedrea.coop	Federated Rural Electric Association		77100 U.S. Highway 71 PO Box 69 Jackson MN, 56143 United States	Electronic Service		No	24-352Official
111	James	Hartson				59931 300th Street Waltham MN, 55982 United States	Paper Service		No	24-352Official
112	Amy	Hastings	amyh@uppersiouxcommunity-nsn.gov	Upper Sioux Community		5722 Travers Lane PO Box 147 Granite Falls MN, 56241 United States	Electronic Service		No	24-352Official
113	Erik	Hatlestad	erik@cureriver.org			117 1st St Montevideo MN, 56265 United States	Electronic Service		No	24-352Official
114	Kim	Havey	kim.havey@minneapolismn.gov	City of Minneapolis		350 South 5th Street, Suite 315M Minneapolis MN, 55415 United States	Electronic Service		No	24-352Official
115	Philip	Hayet	phayet@jkenn.com	J. Kennedy and Associates, Inc.		570 Colonial Park Drive Suite 305 Roswell GA, 30075-3770 United States	Electronic Service		No	24-352Official
116	Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association		4300 220th St W Farmington MN, 55024 United States	Electronic Service		No	24-352Official
117	Annete	Henkel	mui@mutilityinvestors.org	Minnesota Utility Investors		413 Wacouta Street #230 St.Paul MN, 55101 United States	Electronic Service		No	24-352Official
118	Jessy	Hennesy	jessy.hennesy@avantenergy.com	Avant Energy		220 S. Sixth St. Ste 1300 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
119	Kristin	Henry	kristin.henry@sierraclub.org	Sierra Club		2101 Webster St Ste 1300 Oakland CA, 94612 United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
120	Benjamin	Hertz	bhertz@bepc.com	Basin Electric Power Cooperative		1717 E Interstate Ave Bismarck ND, 58503 United States	Electronic Service		No	24-352Official
121	Holly	Hinman	holly.r.hinman@xcelenergy.com	Xcel Energy		414 Nicollet Mall, 7th Floor Minneapolis MN, 55401 United States	Electronic Service		No	24-352Official
122	Joe	Hoffman	ja.hoffman@smmpa.org	SMMPA		500 First Ave SW Rochester MN, 55902-3303 United States	Electronic Service		No	24-352Official
123	Michael	Hoppe	lu23@ibew23.org	Local Union 23, I.B.E.W.		445 Etna Street Ste. 61 St. Paul MN, 55106 United States	Electronic Service		No	24-352Official
124	Ronald	Horman	rhorman@redwoodelectric.com	Redwood Electric Cooperative		60 Pine Street Clements MN, 56224 United States	Electronic Service		No	24-352Official
125	Rick	Horton	rhorton@minnesotaforests.com	Minnesota Forest Industries		324 West Superior Street 903 Medical Arts Building Duluth MN, 55802 United States	Electronic Service		No	24-352Official
126	Robbie	Howe	robbie.howe@llojibwe.net	Leech Lake Band of Ojibwe		190 Sailstar Drive NW Cass Lake MN, 56633 United States	Electronic Service		No	24-352Official
127	John	Ihle	ljihle@rrt.net	PlainStates Energy LLC		27451 S Hwy 34 Barnesville MN, 56514 United States	Electronic Service		No	24-352Official
128	Annie	Jackson	cheryl.jackson@whiteearth-nsn.gov	White Earth Nation		White Earth Tribal Headquarters 35500 Eagle View Road Ogemo MN, 56569 United States	Electronic Service		No	24-352Official
129	Faron	Jackson, Sr.	faron.jackson@llojibwe.net			190 Sailstar Drive NW Cass Lake MN, 56633 United States	Electronic Service		No	24-352Official
130	Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative		1717 East Interstate Avenue Bismarck ND, 58501 United States	Electronic Service		No	24-352Official
131	Justin	Jahnz	justin.jahnz@ecemn.com	East Central Energy		412 Main Ave N Braham MN, 55006 United States	Electronic Service		No	24-352Official
132	Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law		2950 Yellowtail Ave. Marathon FL, 33050 United States	Electronic Service		No	24-352Official
133	Nathan	Jensen	njensen@otpc.com	Otter Tail Power Company		215 S. Cascade St. Fergus Falls	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						MN, 56537 United States				
134	Kevin	Jensvold	kevinj@uppersiouxcommunity-nsn.gov	Upper Sioux Community		PO Box 147 Granite Falls MN, 56241-0147 United States	Electronic Service		No	24-352Official
135	Annette	Johnson	annette.johnson@redlakenation.org	Red Lake Nation		15484 Migizi Drive Red Lake MN, 56671 United States	Electronic Service		No	24-352Official
136	Jody	Johnson	jody.johnson@piic.org	Prairie Island Indian Community		5636 Sturgeon Lake Rd Welch MN, 55089 United States	Electronic Service		No	24-352Official
137	Johnny	Johnson	johnny.johnson@piic.org	Prairie Island Indian Community		5636 Sturgeon Lake Road Welch MN, 55089 United States	Electronic Service		No	24-352Official
138	Richard	Johnson	rick.johnson@lawmoss.com	Moss & Barnett		150 S. 5th Street Suite 1200 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
139	Sarah	Johnson Phillips	sphillips@stoel.com	Stoel Rives LLP		33 South Sixth Street Suite 4200 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
140	Nate	Jones	njones@hcpd.com	Heartland Consumers Power		PO Box 248 Madison SD, 57042 United States	Electronic Service		No	24-352Official
141	Nick	Kaneski	nick.kaneski@enbridge.com	Enbridge Energy Company, Inc.		11 East Superior St Ste 125 Duluth MN, 55802 United States	Electronic Service		No	24-352Official
142	Veda	Kanitz	vmkanitz@gmail.com			null null, null United States	Electronic Service		No	24-352Official
143	Jenny	Kartes	jkartes@arrowhead.coop	Arrowhead Electric Cooperative, Inc.(P)		PO Box 39 5401 W Hwy 61 Lutsen MN, 55612 United States	Electronic Service		No	24-352Official
144	David	Kempf	dkempf@greenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
145	William	Kenworthy	will@votesolar.org			1 South Dearborn St Ste 2000 Chicago IL, 60603 United States	Electronic Service		No	24-352Official
146	Becky	Kern	bkern@bepc.com	Basin Electric Power Cooperative		1717 E Interstate Ave Bismarck ND, 58501 United States	Electronic Service		No	24-352Official
147	Samuel B.	Ketchum	sketchum@kennedy-graven.com	Kennedy & Graven, Chartered		150 S 5th St Ste 700 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
148	Nazir	Khan	nazir@mnejtable.org	Minnesota Environmental Justice Table		2720 E 22nd St Minneapolis MN, 55406 United States	Electronic Service		No	24-352Official
149	Hudson	Kingston	hudson@curemn.org			PO Box 712 Ely MN, 55731 United States	Electronic Service		No	24-352Official
150	Kate	Knuth	kate.knuth@gmail.com			2347 14th Terrace NW New Brighton MN, 55112 United States	Electronic Service		No	24-352Official
151	Frank	Kohlasch	frank.kohlasch@state.mn.us		Minnesota Pollution Control Agency	520 Lafayette Rd N. St. Paul MN, 55155 United States	Electronic Service		No	24-352Official
152	Brian	Kolbinger	brian@beckertownship.org	Becker Township Board		PO Box 248 12165 Hancock St Becker MN, 55308 United States	Electronic Service		No	24-352Official
153	Seth	Koneczny	st.koneczny@smmpa.org	SMMPA		500 First Avenue, SW Rochester MN, 55902-3303 United States	Electronic Service		No	24-352Official
154	Brian	Krambeer	bkrambeer@mienergy.coop	MiEnergy Cooperative		PO Box 626 31110 Cooperative Way Rushford MN, 55971 United States	Electronic Service		No	24-352Official
155	Randy	Kramer	rlkramer89@gmail.com	Water and Soil Resources Board		42808 Co. Rd. 11 Bird Island MN, 55310 United States	Electronic Service		No	24-352Official
156	Allen	Krug	allen.krug@xcelenergy.com	Xcel Energy		414 Nicollet Mall-7th fl Minneapolis MN, 55401 United States	Electronic Service		No	24-352Official
157	Kay	Kuhlmann	teri.swanson@ci.red-wing.mn.us	City Of Red Wing		315 West Fourth Street Red Wing MN, 55066 United States	Electronic Service		No	24-352Official
158	Brenda	Kyle	bkyle@stpaulchamber.com	St. Paul Area Chamber of Commerce		401 N Robert Street Suite 150 St Paul MN, 55101 United States	Electronic Service		No	24-352Official
159	Therese	LaCanne	tlacanne@grenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
160	Matthew	Lacey	mlacey@grenergy.com	Great River Energy		12300 Elm Creek Boulevard Maple Grove MN, 55369-4718 United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
161	Becky	Lammi	cityclerk@ci.aurora.mn.us	City of Aurora		16 W 2nd Ave N PO Box 160 Aurora MN, 55705 United States	Electronic Service		No	24-352Official
162	Carmel	Laney	carmel.laney@stoel.com	Stoel Rives LLP		33 South Sixth Street Suite 4200 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
163	Arthur	LaRose	arthur.larose@llojbwe.net	Leech Lake Band of Ojibwe		190 Sailstar Drive NW Cass Lake MN, 56633 United States	Electronic Service		No	24-352Official
164	Robert L	Larsen	robert.larsen@lowersioux.com	Lower Sioux Indian Community		PO Box 308 39527 Reservation Highway 1 Morton MN, 56270 United States	Electronic Service		No	24-352Official
165	Emily	Larson	elarson@duluthmn.gov	City of Duluth		411 W 1st St Rm 403 Duluth MN, 55802 United States	Electronic Service		No	24-352Official
166	James D.	Larson	james.larson@avantenergy.com	Avant Energy Services		220 S 6th St Ste 1300 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
167	Mark	Larson	mlarson@meeker.coop	Meeker Coop Light & Power Assn		1725 Highway 12 E Ste 100 Litchfield MN, 55355 United States	Electronic Service		No	24-352Official
168	Peder	Larson	plarson@larkinhoffman.com	Larkin Hoffman Daly & Lindgren, Ltd.		8300 Norman Center Drive Suite 1000 Bloomington MN, 55437 United States	Electronic Service		No	24-352Official
169	Rachel	Leonard	rachel.leonard@ci.monticello.mn.us	City of Monticello		505 Walnut St Ste 1 Monticello MN, 55362 United States	Electronic Service		No	24-352Official
170	Dan	Leshner	dlesher@greenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
171	Annie	Levenson Falk	annielf@cubminnesota.org	Citizens Utility Board of Minnesota		332 Minnesota Street, Suite W1360 St. Paul MN, 55101 United States	Electronic Service		No	24-352Official
172	Jesse	Levine	jesse_levine@afandpa.org			1101 K St NW Suite 700 Washington DC, 20005 United States	Electronic Service		No	24-352Official
173	Amy	Liberkowski	amy.a.liberkowski@xcelenergy.com	Xcel Energy		414 Nicollet Mall 7th Floor Minneapolis MN, 55401-1993 United States	Electronic Service		No	24-352Official
174	Eric	Lindberg	elindberg@mncenter.org	Minnesota Center for		1919 University Avenue West	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
				Environmental Advocacy		Suite 515 Saint Paul MN, 55104-3435 United States				
175	Eric	Lipman	eric.lipman@state.mn.us		Office of Administrative Hearings	PO Box 64620 St. Paul MN, 55164-0620 United States	Electronic Service		Yes	24-352Official
176	Michelle	Lommel	mlommel@grenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
177	Bob	Long	rlong@larkinhoffman.com	Larkin Hoffman (Silicon Energy)		1500 Wells Fargo Plaza 7900 Xerxes Ave S Bloomington MN, 55431 United States	Electronic Service		No	24-352Official
178	Nicole	Luckey	nluckey@invenergyllc.com	Invenergy LLC		1 S. Wacker Suite 1800 Chicago IL, 60606 United States	Electronic Service		No	24-352Official
179	Susan	Ludwig	sludwig@mnpower.com	Minnesota Power		30 West Superior Street Duluth MN, 55802 United States	Electronic Service		No	24-352Official
180	Robert	Lunder	robert.lunder@mdu.com	Montana-Dakota Utilities (ET)		400 N 4th St Bismark ND, 58501 United States	Electronic Service		No	24-352Official
181	Alice	Madden	alice@communitypowermn.org	Community Power		2720 E 22nd St Minneapolis MN, 55406 United States	Electronic Service		No	24-352Official
182	Scott	Magnuson	smagnuson@bpu.org	Brainerd Public Utilities		8027 Highland Scenic Rd Baxter MN, 56425 United States	Electronic Service		No	24-352Official
183	Kavita	Maini	kmainsi@wi.rr.com	KM Energy Consulting, LLC		961 N Lost Woods Rd Oconomowoc WI, 53066 United States	Electronic Service		No	24-352Official
184	Emily	Marshall	emarshall@jourismarshall.com	Miller O'Brien Jensen, PA		120 S. 6th Street Suite 2400 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
185	Mary	Martinka	mary.a.martinka@xcelenergy.com	Xcel Energy Inc		414 Nicollet Mall 7th Floor Minneapolis MN, 55401 United States	Electronic Service		No	24-352Official
186	Gregg	Mast	gmast@cleanenergyeconomymn.org	Clean Energy Economy Minnesota		4808 10th Avenue S Minneapolis MN, 55417 United States	Electronic Service		No	24-352Official
187	Shena	Matrious	shena.matrious@millelacsband.com	Mille Lacs Band of Ojibwe		43408 Odena Drive Onamia MN, 56349 United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
188	Daryl	Maxwell	dmaxwell@hydro.mb.ca	Manitoba Hydro		360 Portage Ave FL 16 PO Box 815, Station Main Winnipeg MB, R3C 2P4 Canada	Electronic Service		No	24-352Official
189	Tim	McCarthy	tim.mccarthy@siouxvalleyenergy.com	Sioux Valley Southwestern Electric Cooperative, Inc. d/b/a Sioux Valley Energy		null null, null United States	Electronic Service		No	24-352Official
190	Scot	McClure	scotmcclure@alliantenergy.com	Interstate Power And Light Company		4902 N Biltmore Ln PO Box 77007 Madison WI, 53707-1007 United States	Electronic Service		No	24-352Official
191	April	McCormick	aprilm@grandportage.com	Grand Portage Band of Lake Superior Chippewa		PO Box 428 Grand Portage MN, 55605 United States	Electronic Service		No	24-352Official
192	Jess	McCullough	jmccullough@mnpower.com	Minnesota Power		30 W Superior St Duluth MN, 55802 United States	Electronic Service		No	24-352Official
193	Sara G	McGrane	smcgrane@felhaber.com	Felhaber Larson		220 S 6th St Ste 2200 Minneapolis MN, 55420 United States	Electronic Service		No	24-352Official
194	Natalie	McIntire	natalie.mcintire@gmail.com	Wind on the Wires		570 Asbury St Ste 201 Saint Paul MN, 55104-1850 United States	Electronic Service		No	24-352Official
195	Harvey	McMahon	hcmahon@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	24-352Official
196	Taylor	McNair	taylor@gridlab.org			668 Capp Street San Francisco CA, 94110 United States	Electronic Service		No	24-352Official
197	Ronald	Meier	rmeier@mcleodcoop.com	Mcleod Cooperative Power		3515 11th St East Glencoe MN, 55336 United States	Electronic Service		No	24-352Official
198	Melanie	Mesko Lee	melanie.lee@burnsvillemn.gov	City of Burnsville		100 Civic Center Parkway Burnsville MN, 55337-3867 United States	Electronic Service		No	24-352Official
199	Peder	Mewis	pmewis@cleangridalliance.org	Clean Grid Alliance		570 Asbury St. St. Paul MN, 55104 United States	Electronic Service		No	24-352Official
200	Joseph	Meyer	joseph.meyer@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	Bremer Tower, Suite 1400 445 Minnesota Street St Paul MN,	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
212	Sonny	Myers	smyers@1854treatyauthority.org	1854 Treaty Authority		4428 Haines Rd Duluth MN, 55811-1524 United States	Electronic Service		No	24-352Official
213	Ben	Nelson	benn@cmpasgroup.org	CMMPA		459 South Grove Street Blue Earth MN, 56013 United States	Electronic Service		No	24-352Official
214	Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment		212 3rd Ave N Ste 560 Minneapolis MN, 55401 United States	Electronic Service		No	24-352Official
215	Deb	Nelson	dnelson@greenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
216	David	Niles	david.niles@avantenergy.com	Minnesota Municipal Power Agency		220 South Sixth Street Suite 1300 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
217	Duane	Ninneman	duane@cureriver.org	Clean Up the River Environment		117 South 1st St Montevideo MN, 56265 United States	Electronic Service		No	24-352Official
218	Michael	Noble	noble@fresh-energy.org	Fresh Energy		408 Saint Peter St Ste 350 Saint Paul MN, 55102 United States	Electronic Service		No	24-352Official
219	Rolf	Nordstrom	rnordstrom@gpisd.net	Great Plains Institute		2801 21ST AVE S STE 220 Minneapolis MN, 55407-1229 United States	Electronic Service		No	24-352Official
220	Samantha	Norris	samanthanorris@alliantenergy.com	Interstate Power and Light Company		200 1st Street SE PO Box 351 Cedar Rapids IA, 52406-0351 United States	Electronic Service		No	24-352Official
221	M. William	O'Brien	bobrien@mojlaw.com	Miller O'Brien Jensen, P.A.		120 S 6th St Ste 2400 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
222	Ric	O'Connell	ric@gridlab.org	GridLab		2120 University Ave Berkeley CA, 94704 United States	Electronic Service		No	24-352Official
223	Joseph	OBrien	joey.obrien@lowersioux.com			39527 Highway 1 Morton MN, 56270 United States	Electronic Service		No	24-352Official
224	Matthew	Olsen	molsen@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	24-352Official
225	Russell	Olson	rolson@hcpd.com	Heartland Consumers Power District		PO Box 248 Madison SD, 57042-0248 United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
226	Debra	Opatz	dopatz@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	24-352Official
227	Mikayla	Osterman	mosterman@otpc.com	Otter Tail Power Company		215 S Cascade St PO Box 496 Fergus Falls MN, 56537 United States	Electronic Service		No	24-352Official
228	Jamie	Overgaard	jovergaard@minnkota.com	Minnkota Power Cooperative, Inc.		5301 32nd Ave S Grand Forks ND, 58201 United States	Electronic Service		No	24-352Official
229	Carol A.	Overland	overland@legalelectric.org	Legalelectric - Overland Law Office		1110 West Avenue Red Wing MN, 55066 United States	Electronic Service		No	24-352Official
230	Gregory	Padden	gpadden@grenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
231	Jessica	Palmer Denig	jessica.palmer-denig@state.mn.us		Office of Administrative Hearings	600 Robert St N PO Box 64620 St. Paul MN, 55164 United States	Electronic Service		No	24-352Official
232	Marsha	Parlow	mparlow@grenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
233	Priti	Patel	ppatel@grenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369-4718 United States	Electronic Service		No	24-352Official
234	Gerad	Paul	gpaul@minnkota.com	Minnkota Power Cooperative		5301 32nd Ave S Grand Forks ND, 58201 United States	Electronic Service		No	24-352Official
235	Earl	Pendleton	earl.pendleton@lowersioux.com	Lower Sioux Indian Community		39527 Highway 1 Morton MN, 56270 United States	Electronic Service		No	24-352Official
236	Mary Beth	Peranteau	mperanteau@fredlaw.com	Fredrikson & Byron, P.A.		44 East Mifflin Street Suite 1000 Madison WI, 53703 United States	Electronic Service		No	24-352Official
237	Thom	Petersen	thom.petersen@state.mn.us		Minnesota Department of Agriculture	625 North Robert St Saint Paul MN, 55155 United States	Electronic Service		No	24-352Official
238	Luke	Peterson	luke.peterson@hpuc.com	Hibbing Public Utilities Commission		1902 Sixth Ave E Hibbing MN, 55746 United States	Electronic Service		No	24-352Official
239	Neil	Peterson	info@nclucb.org	Northern Counties Land Use Coordinating Board		null null, null United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
240	Gordon	Pietsch	gpietsch@grenergy.com	Great River Energy		12300 Elm Creek Blvd. Maple Grove MN, 55369-4718 United States	Electronic Service		No	24-352Official
241	Joe	Plumer	joe.plumer@redlakenation.org	Red Lake Nation		15484 Migizi Drive Red Lake MN, 56671 United States	Electronic Service		No	24-352Official
242	Kaci	Poor	kwp@floomenergylaw.com	Floom Energy Law PLLC		3100 Clarendon Blvd. Suite 920 Arlington VA, 22201 United States	Electronic Service		No	24-352Official
243	J.	Porter	greg.porter@nngco.com	Northern Natural Gas Company		1111 South 103rd St Omaha NE, 68124 United States	Electronic Service		No	24-352Official
244	Kevin	Pranis	kpranis@liunagroc.com	Laborers' District Council of MN and ND		81 E Little Canada Road St. Paul MN, 55117 United States	Electronic Service		No	24-352Official
245	Robert	Prescott	bob.prescott@lowersioux.com	Lower Sioux Indian Community		39527 Highway 1 Morton MN, 56270 United States	Electronic Service		No	24-352Official
246	David	Raatz	draatz@bepc.com	Basin Electric Power Cooperative		1717 East Interstate Avenue Bismarck ND, 58501 United States	Electronic Service		No	24-352Official
247	John C.	Reinhardt		Laura A. Reinhardt		3552 26th Ave S Minneapolis MN, 55406 United States	Paper Service		No	24-352Official
248	Victoria	Reinhardt	victoria.reinhardt@co.ramsey.mn.us	Partnership on Waste and Energy		Ramsey County Board Office 15 W. Kellogg Blvd., Ste. 220 St. Paul MN, 55102 United States	Electronic Service		No	24-352Official
249	Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us		Office of the Attorney General - Residential Utilities Division	1400 BRM Tower 445 Minnesota St St. Paul MN, 55101-2131 United States	Electronic Service		Yes	24-352Official
250	Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy		26 E Exchange St, Ste 206 St. Paul MN, 55101-1667 United States	Electronic Service		No	24-352Official
251	Micah	Revell	micah.revell@stinson.com	Stinson LLP		50 South Sixth St Ste 2600 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
252	John	Richards	johnrichards@nweco.com	Northwestern Wisconsin Electric Company		104 S. Pine St. Grantsburg WI, 54840 United States	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
253	Susan	Romans	sromans@allete.com	Minnesota Power		30 West Superior Street Legal Dept Duulth MN, 55802 United States	Electronic Service		No	24-352Official
254	Stephan	Roos	stephan.roos@state.mn.us		Minnesota Department of Agriculture	625 Robert St N Saint Paul MN, 55155-2538 United States	Electronic Service		No	24-352Official
255	Alan	Roy	alan.roy@whiteearth-nsn.gov	White Earth Nation		White Earth Tribal Headquarters 35500 Eagle View Road Ogema MN, 56569 United States	Electronic Service		No	24-352Official
256	Bill	Rudnicki	bill.rudnicki@shakopeedakota.org	Shakopee Mdewakanton Sioux Community		Shakopee Mdewakanton Sioux Community 2330 Sioux Trail NW Prior Lake MN, 55372 United States	Electronic Service		No	24-352Official
257	Nathaniel	Runke	nrunke@local49.org			611 28th St. NW Rochester MN, 55901 United States	Electronic Service		No	24-352Official
258	Zachary	Ruzycki	zruzycki@grenergy.com	Great River Energy		12300 Elm Creek Boulevard Maple Grove MN, 55369 United States	Electronic Service		No	24-352Official
259	Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative		P.O. Box 227 Madison SD, 57042 United States	Electronic Service		No	24-352Official
260	Todd	Sailer		Minnetonka Power Cooperative		5301 32nd Ave. S Grand Forks ND, 58201 United States	Paper Service		No	24-352Official
261	Miranda	Sam	miranda.sam@lowersioux.com	Lower Sioux Indian Community		39527 Reservation Highway 1 PO Box 308 Morton MN, 56270 United States	Electronic Service		No	24-352Official
262	Joseph L	Sathe	jsathe@kennedy-graven.com	Kennedy & Graven, Chartered		150 S 5th St Ste 700 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official
263	Adam	Savariego	adams@uppersiouxcommunity-nsn.gov	Upper Sioux Community		5722 Travers Lane PO Box 147 Granite Falls MN, 56241 United States	Electronic Service		No	24-352Official
264	John	Saxhaug	john_saxhaug@yahoo.com			3940 Harriet Ave Minneapolis MN, 55409 United States	Electronic Service		No	24-352Official
265	Jean	Schafer	jeans@bepc.com	Basin Electric Power Cooperative		1717 E Interstate Ave Bismarck ND,	Electronic Service		No	24-352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						58501 United States				
266	Eric	Schenck	eric.schenck@state.mn.us	EWS		1530 Cleveland Ave. N St. Paul MN, 55108 United States	Electronic Service		No	24- 352Official
267	Jeff	Schneider	jeff.schneider@ci.red-wing.mn.us	City of Red Wing		315 West 4th Street Red Wing MN, 55066 United States	Electronic Service		No	24- 352Official
268	Kay	Schraeder	kschraeder@minnkota.com	Minnkota Power		5301 32nd Ave S Grand Forks ND, 58201 United States	Electronic Service		No	24- 352Official
269	Kathleen	Schuler	keschuler47@gmail.com			1520 10th Ave S #2 Minneapolis MN, 55404 United States	Electronic Service		No	24- 352Official
270	Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC		1742 Patriot Rd Northfield MN, 55057 United States	Electronic Service		No	24- 352Official
271	J.P.	Schumacher	jps@mrenergy.com	Missouri River Energy Services		null null, null United States	Electronic Service		No	24- 352Official
272	Kevin	Schumacher	kevin@mrets.org	Midwest Renewable Energy Tracking System		null null, null United States	Electronic Service		No	24- 352Official
273	Ronald J.	Schwartau	rschwartau@noblesce.com	Nobles Electric Cooperative		22636 U.S. Hwy. 59 Worthington MN, 56187 United States	Electronic Service		No	24- 352Official
274	Christine	Schwartz	regulatory.records@xcelenergy.com	Xcel Energy		414 Nicollet Mall, MN1180-07- MCA Minneapolis MN, 55401- 1993 United States	Electronic Service		No	24- 352Official
275	Douglas	Seaton	doug.seaton@umwlc.org	Upper Midwest Law Center		8421 Wayzata Blvd Ste 300 Golden Valley MN, 55426 United States	Electronic Service		No	24- 352Official
276	Dean	Sedgwick	sedgwick@itascapower.com	Itasca Power Company		PO Box 455 Spring Lake MN, 56680 United States	Electronic Service		No	24- 352Official
277	Jessie	Seim	jessie.seim@piic.org	Prairie Island Indian Community		5636 Sturgeon Lake Rd Welch MN, 55089 United States	Electronic Service		No	24- 352Official
278	Darrell	Seki, Sr.	dseki@redlakenation.org			15484 Migizi Drive Red Lake MN, 56671 United States	Electronic Service		No	24- 352Official
279	Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates		7400 Lyndale Ave S Ste 190 Richfield MN, 55423 United States	Electronic Service		No	24- 352Official
280	Bria	Shea	bria.e.shea@xcelenergy.com	Xcel Energy		414 Nicollet Mall	Electronic Service		No	24- 352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						Minneapolis MN, 55401 United States				
281	Andrew R.	Shedlock	andrew.shedlock@kutakrock.com	Kutak Rock LLP		60 South Sixth St Ste 3400 Minneapolis MN, 55402- 4018 United States	Electronic Service		No	24- 352Official
282	Doug	Shoemaker	dougs@charter.net	Minnesota Renewable Energy		2928 5th Ave S Minneapolis MN, 55408 United States	Electronic Service		No	24- 352Official
283	Beth	Smith	bsmith@greatermankato.com	Greater Mankato Growth		1961 Premier Dr Ste 100 Mankato MN, 56001 United States	Electronic Service		No	24- 352Official
284	Joel	Smith	jsmith@mnchippewatribe.org	Minnesota Chippewa Tribe		PO Box 217 Cass Lake MN, 56633 United States	Electronic Service		No	24- 352Official
285	Joshua	Smith	joshua.smith@sierraclub.org			85 Second St FL 2 San Francisco CA, 94105 United States	Electronic Service		No	24- 352Official
286	Ken	Smith	ken.smith@districtenergy.com	District Energy St. Paul Inc.		76 W Kellogg Blvd St. Paul MN, 55102 United States	Electronic Service		No	24- 352Official
287	Nizhoni	Smith	nizhoni.smith@lowersioux.com	Lower Sioux Indian Community		PO Box 308 39527 Reservation Highway 1 Morton MN, 56270 United States	Electronic Service		No	24- 352Official
288	Trevor	Smith	trevor.smith@avantenergy.com	Avant Energy, Inc.		220 South Sixth Street Suite 1300 Minneapolis MN, 55402 United States	Electronic Service		No	24- 352Official
289	Roger	Smith, Sr.	rogermsmithsr@fdlrez.com			1720 Big Lake Road Cloquet MN, 55720 United States	Electronic Service		No	24- 352Official
290	Beth	Soholt	bsoholt@cleangridalliance.org	Clean Grid Alliance		570 Asbury Street Suite 201 St. Paul MN, 55104 United States	Electronic Service		No	24- 352Official
291	Anna	Sommer	asommer@energyfuturesgroup.com	Energy Futures Group		PO Box 692 Canton NY, 13617 United States	Electronic Service		No	24- 352Official
292	Marie	Spry	mariespry@grandportage.com			PO Box 428 Grand Portage MN, 55605 United States	Electronic Service		No	24- 352Official
293	Mark	Spurr	mspurr@fvbenergy.com	International District Energy Association		222 South Ninth St., Suite 825 Minneapolis MN, 55402 United States	Electronic Service		No	24- 352Official
294	LeRoy	Staples Fairbanks III	leroy.fairbanks@llojbwe.net	Leech Lake Band of Ojibwe		190 Sailstar Drive NW Cass Lake	Electronic Service		No	24- 352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						MN, 56633 United States				
295	Russ	Stark	russ.stark@ci.stpaul.mn.us	City of St. Paul		Mayor's Office 15 W. Kellogg Blvd., Suite 390 Saint Paul MN, 55102 United States	Electronic Service		No	24- 352Official
296	Byron E.	Starns	byron.starns@stinson.com	STINSON LLP		50 S 6th St Ste 2600 Minneapolis MN, 55402 United States	Electronic Service		No	24- 352Official
297	Cary	Stephenson	cstephenson@otpc.com	Otter Tail Power Company		215 South Cascade Street Fergus Falls MN, 56537 United States	Electronic Service		No	24- 352Official
298	Mark	Strohfus	mstrohfus@grenergy.com	Great River Energy		12300 Elm Creek Boulevard Maple Grove MN, 55369- 4718 United States	Electronic Service		No	24- 352Official
299	James M	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered		150 S 5th St Ste 700 Minneapolis MN, 55402 United States	Electronic Service		No	24- 352Official
300	Samuel	Strong	sam.strong@redlakenation.org	Red Lake Nation		15484 Migizi Drive Red Lake MN, 56671 United States	Electronic Service		No	24- 352Official
301	Kent	Sulem	ksulem@mmua.org			3131 Fernbrook Ln N Ste 200 Plymouth MN, 55447-5337 United States	Electronic Service		No	24- 352Official
302	Timothy	Sullivan	tsullivan@whe.org	Wright Hennepin Coop. Electric Assn.		6800 Electric Drive PO Box 330 Rockford MN, 55373 United States	Electronic Service		No	24- 352Official
303	David	Sunderman	daves@benco.org	BENCO (DUPLICATE)		PO Box 8 Mankato MN, 56002-0008 United States	Electronic Service		No	24- 352Official
304	Randy	Synsteliën	rsynsteliën@otpc.com	Otter Tail Power Company		215 S Cascade St Fergus Falls MN, 56537 United States	Electronic Service		No	24- 352Official
305	Camille	Tanhoff	kamip@uppersiouxcommunity-nsn.gov	Upper Sioux Community		5722 Travers Lane PO BOX 147 Granite Falls MN, 56241 United States	Electronic Service		No	24- 352Official
306	Mikayala	Thompson	mmthompson@otpc.com	Otter Tail Power Company		null null, null United States	Electronic Service		No	24- 352Official
307	Tim	Thompson	tthompson@lrec.coop	Lake Region Electric Cooperative		PO Box 643 1401 South Broadway Pelican Rapids MN, 56572 United States	Electronic Service		No	24- 352Official
308	Stuart	Tommerdahl	stommerdahl@otpc.com	Otter Tail Power Company		215 S Cascade St	Electronic Service		No	24- 352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						PO Box 496 Fergus Falls MN, 56537 United States				
309	Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD		4445 W 77th Street Suite 224 Edina MN, 55435 United States	Electronic Service		No	24- 352Official
310	Lise	Trudeau	lise.trudeau@state.mn.us		Department of Commerce	85 7th Place East Suite 500 Saint Paul MN, 55101 United States	Electronic Service		No	24- 352Official
311	Caralyn	Trutna	carrie@uppersiouxcommunity-nsn.gov	Upper Sioux Community		Upper Sioux Community P.O. Box 147 Granite Falls MN, 55372 United States	Electronic Service		No	24- 352Official
312	Jackie	Van Norman	jvannorman@grenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24- 352Official
313	Analeisha	Vang	avang@mnpower.com			30 W Superior St Duluth MN, 55802-2093 United States	Electronic Service		No	24- 352Official
314	Adrian	Varga	avarga@actcommodities.com	ACT Commodities		437 Madison Ave New York City NY, 10022 United States	Electronic Service		No	24- 352Official
315	Sam	Villella	sdvillella@gmail.com			10534 Alamo Street NE Blaine MN, 55449 United States	Electronic Service		No	24- 352Official
316	Julie	Voeck	julie.voeck@nee.com	NextEra Energy Resources, LLC		700 Universe Blvd Juno Beach FL, 33408 United States	Electronic Service		No	24- 352Official
317	Amelia	Vohs	avohs@mncenter.org	Minnesota Center for Environmental Advocacy		1919 University Avenue West Suite 515 St. Paul MN, 55104 United States	Electronic Service		No	24- 352Official
318	Michael	Volker	mvolker@eastriver.coop	East River Electric Power Coop		211 S. Harth Ave Madison SD, 57042 United States	Electronic Service		No	24- 352Official
319	Toni	Volkmeier	toni.volkmeier@state.mn.us	MPCA		520 Lafayette Rd. N. St. Paul MN, 55155 United States	Electronic Service		No	24- 352Official
320	Trent	Waite	twaite@grenergy.com			null null, null United States	Electronic Service		No	24- 352Official
321	Laurance R	Waldoch	larrywaldoch@gmail.com	Attorney		2597 Parkview Dr Saint Paul MN, 55110 United States	Electronic Service		No	24- 352Official
322	Greg	Wannier	greg.wannier@sierraclub.org	Sierra Club		2101 Webster St Ste 1300 Oakland CA,	Electronic Service		No	24- 352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
						94612 United States				
323	Roger	Warehime	roger.warehime@owatonnautilities.com	Owatonna Municipal Public Utilities - Gas		208 S Walnut Ave PO BOX 800 Owatonna MN, 55060 United States	Electronic Service		No	24- 352Official
324	Cynthia	Warzecha	cynthia.warzecha@state.mn.us	Minnesota Department of Natural Resources		500 Lafayette Road Box 25 St. Paul MN, 55155-4040 United States	Electronic Service		No	24- 352Official
325	Carol	Westergard	cwestergard@otpc.com	Otter Tail Power Company		215 S Cascade St Fergus Falls MN, 56537 United States	Electronic Service		No	24- 352Official
326	Heather	Westra	heather.westra@piic.org	Prairie Island Indian Community		5636 Sturgeon Lake Rd Welch MN, 55089 United States	Electronic Service		No	24- 352Official
327	Paul	White	paul.white@prcwind.com	Project Resources Corp./Tamarac Line LLC/Ridgewind		618 2nd Ave SE Minneapolis MN, 55414 United States	Electronic Service		No	24- 352Official
328	Steve	White	steve.white@llojibwe.net	Leech Lake Band of Ojibwe		190 Sailstar Drive NW Cass Lake MN, 56633 United States	Electronic Service		No	24- 352Official
329	Cody	Whitebear	cody.whitebear@piic.org	Prairie Island Indian Community		5636 Sturgeon Lake Road Welch MN, 55089 United States	Electronic Service		No	24- 352Official
330	John	Williams	jwilliams@greenergy.com	Great River Energy		12300 Elm Creek Blvd Maple Grove MN, 55369 United States	Electronic Service		No	24- 352Official
331	Laurie	Williams	laurie.williams@sierraclub.org	Sierra Club		Environmental Law Program 1536 Wynkoop St Ste 200 Denver CO, 80202 United States	Electronic Service		No	24- 352Official
332	Virgil	Wind	virgil.wind@millelacsband.com	Mille Lacs Band of Ojibwe		43408 Oodena Drive Onamia MN, 56359 United States	Electronic Service		No	24- 352Official
333	Joseph	Windler	jwindler@winthrop.com	Winthrop & Weinstine		225 South Sixth Street, Suite 3500 Minneapolis MN, 55402 United States	Electronic Service		No	24- 352Official
334	Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company		200 First St SE Cedar Rapids IA, 52401 United States	Electronic Service		No	24- 352Official
335	Sara	Wolff	sara@mnipl.org			710 Linwood Avenue St Paul MN, 55105 United States	Electronic Service		No	24- 352Official

#	First Name	Last Name	Email	Organization	Agency	Address	Delivery Method	Alternate Delivery Method	View Trade Secret	Service List Name
336	Tim	Wulling	t.wulling@earthlink.net			1495 Raymond Ave. Saint Paul MN, 55108 United States	Electronic Service		No	24-352Official
337	Laurie	York	laurie.york@whiteearth-nsn.gov	White Earth Reservation Business Committee		PO Box 418 White Earth MN, 56591 United States	Electronic Service		No	24-352Official
338	Kurt	Zimmerman	kwz@ibew160.org	Local Union #160, IBEW		2909 Anthony Ln St Anthony Village MN, 55418-3238 United States	Electronic Service		No	24-352Official
339	Emily	Ziring	eziring@stlouispark.org	City of St. Louis Park		5005 Minnetonka Blvd St. Louis Park MN, 55416 United States	Electronic Service		No	24-352Official
340	Patrick	Zomer	pat.zomer@lawmoss.com	Moss & Barnett PA		150 S 5th St #1200 Minneapolis MN, 55402 United States	Electronic Service		No	24-352Official