

City Coordinator 350 S. Fifth St. - Room 301M Minneapolis, MN 55415 TEL 612.673.2032

www.minneapolismn.gov

April 22, 2020

William Seuffert Executive Secretary Minnesota Public Utilities Commission 121 7th Place East, Suite 350 Saint Paul, MN 55101

RE: Supplemental Comments of the City of Minneapolis

Docket No. E002/M-19-666 Xcel Energy 2020-2029 Integrated Distribution Plan

Dear Mr. Seuffert:

The City of Minneapolis ("Minneapolis") has reviewed the Comments and Reply Comments regarding the 2020-2029 Xcel Energy ("Xcel" or "the Company") Integrated Distribution Plan ("IDP"). We offer these Supplemental Comments with updated recommendations for consideration by the Commission, Xcel and others. We value the effort and insights associated with the work completed to date. Minneapolis views the IDP process through the lens of prioritizing public health, equity, climate responsiveness, and affordability in pursuit of environmental, economic, and social sustainability<sup>1</sup>.

Minneapolis appreciates the comments and recommendations of others and the feedback on our recommendations from several parties. We wish to clarify two topics to promote understanding of our positions.

 Regarding City of Minneapolis Recommendation 1.c. "Modify the criteria used to screen for NWA projects by reducing the project cost threshold to \$1 million to address the issues that Xcel raised with the current threshold"<sup>2</sup>

In Initial Comments, City of Minneapolis made this recommendation based on Xcel's observation within the IDP report that the current \$2 million minimum threshold may screen out less expensive, lower risk projects that may be more suitable for NWA (pages 97-98). The Department of Commerce expressed concern about this recommendation in their *Reply Comments* and cautioned against requiring additional analysis that may prove redundant.<sup>3</sup>

For context, we wish to include two citations that we inadvertently omitted that prompted the recommendation:

Costs – Per the Commission's Order, we evaluated projects with costs greater than \$2 million.

<sup>&</sup>lt;sup>1</sup> City of Minneapolis <u>Sustainability Homepage</u>.

<sup>&</sup>lt;sup>2</sup> Docket 19-666. <u>City of Minneapolis Comments</u>. March 17, 2020.

<sup>&</sup>lt;sup>3</sup> Docket 19-666 <u>MN Department of Commerce Reply Comments</u>. p.9. Apr. 10, 2020.

However, we believe there is additional work to be done to best identify the range of project costs for this filter.<sup>4</sup>

And:

Most capacity projects budgeted at greater than \$2 million are intended to solve a larger numbers of risks – this vastly increases the complexity of the problems to solve with a NWA, and in turn increases the amount of resources required to conduct the analysis. Projects with fewer capacity risks to solve are more localized and therefore more straightforward.<sup>5</sup>

Minneapolis understands the Department's concern given the labor-intensive nature of the analysis. Minneapolis modifies the recommendation as follows:

# Based on experience gained with the IDP process to date, the Commission directs Xcel to work with stakeholders to identify improved screening criteria for potential NWA projects.

2) Regarding City of Minneapolis Recommendation 4: [Minneapolis recommends] Xcel be required to consider the energy and climate goals of the Minnesota communities it serves along with customer preference trends when responding to the Commission's Aug 2018 IDP order point 3.A.32 and July 2019 IDP order point 7 in future IDPs.<sup>6</sup>

In Reply Comments, Xcel indicated:

We have a long history of constructive relationships with the communities we serve, which includes helping them achieve climate and other energy goals. No change to the IDP requirements is necessary, as we are already factoring public policies and goals into our planning.<sup>7</sup>

Minneapolis appreciates Xcel's recognition of public policy as a valid driver of climate-responsive technology adoption.<sup>8</sup> We look forward to continued collaboration with Xcel on our respective climate goals.

The Department of Commerce expressed concern with our Recommendation 4:

First, the City of Minneapolis appears to be supporting the concept of burdening all of Xcel's ratepayers with incremental costs incurred in support of the goals of a single ratepayer, or subset of ratepayers, without a showing of benefits to all of Xcel's ratepayers. This concept does not conform to Minnesota's regulatory construct, including cost causation principles.<sup>9</sup>

Minneapolis clarifies that we do not wish to increase cost burdens on non-Minneapolis customers, but rather, we advocate for infrastructure investments to be deployed in an efficient manner, consistent with public policy goals. Studies show doing so can save all customers money.<sup>10</sup>

<sup>&</sup>lt;sup>4</sup> Docket 19-666 <u>Xcel 2019 Integrated Distribution Plan</u>. p. 97 Nov 2019.

<sup>&</sup>lt;sup>₅</sup> *Id.* p.98.

<sup>&</sup>lt;sup>6</sup> Id. p. 8

<sup>&</sup>lt;sup>7</sup> Xcel Reply Comments Attachment A. p.11

<sup>&</sup>lt;sup>8</sup> <u>Citizens Utility Board/Strategen Comments</u>. Mar 17, 2020.

<sup>&</sup>lt;sup>9</sup> MN Department of Commerce Reply Comments. Apr 10, 2020.

<sup>&</sup>lt;sup>10</sup> <u>Vibrant Clean Energy Presentation to the MPUC</u>. Minnesota's Smarter Grid: Pathways Toward a Clean, Reliable and Affordable Transportation and Energy System. Summary slides 20 and 38. Special Planning Meeting. Oct. 30, 2018. Accessed Apr. 17, 2020.

The concept of Complete Streets is viewed as a useful analogy by some. Complete Streets frames planning, design, construction, operation, and maintenance of transportation networks with all users in mind. The idea is that streets are a vital part of public infrastructure, and that everyone, regardless of age, ability, income, race, or ethnicity, ought to have equitable, convenient access to community destinations whether walking, driving, bicycling, or taking transit.<sup>11</sup> The result is a more efficient and socially just system with positive public health, environmental, and economic outcomes.

Similarly, investing in a flexible, resilient grid that provides necessary grid services, including two-way power flows and communication, is a people-centered, no-regrets strategy that promotes equity. The vision for a modern grid that supports the decarbonized electricity system we aspire to is captured in initiatives like *e21:* An Electric System for the 21st Century<sup>12</sup> and within the Commission's five principles:

- Maintain and enhance the **safety**, **security**, **reliability**, **and resilience** of the electricity grid at fair and **reasonable costs**, consistent with the **state's energy policies**;
- Enable greater customer engagement, empowerment, and options for energy services;
- Move toward the creation of efficient, cost-effective, **accessible grid platforms** for new products and services, with opportunities for **adoption of new distributed technologies**;
- Ensure optimized use of electricity grid assets and resources to minimize total system costs; and
- Provide the Commission with the information necessary to understand Xcel's short-term and long-term distribution system plans, the **costs and benefits** of specific investments, and a comprehensive analysis of ratepayer cost and value.<sup>13</sup>

Using the Complete Streets analogy, Xcel is responsible for managing many billions of dollars of critical public infrastructure, much of it with an expected life measured in decades and well into the timeframe of the state's and cities' climate goals. Proactive planning is a way to deliver high quality services cost-effectively and equitably for the benefit of both individual customers and the grid community. This is why we believe that incorporating energy policy goals adopted by cities that Xcel serves is appropriate to include in grid planning.

#### Interoperability

Finally, several parties emphasized the importance of demonstrating full functionality that enables customer empowerment and operational excellence"<sup>14</sup> as being critical to capture the public benefit associated with AGIS beyond utility operational efficiencies<sup>15</sup>. We agree.

Minneapolis understands that as advanced metering infrastructure is deployed, the actual performance does not always match the desired grid flexibility and customer benefits promoted by vendors. A utility can protect itself and its customers by carefully negotiating the terms of contracts with vendors such that full payment is withheld until the advertised performance milestones are reached. This requires extensive coordination and negotiation upfront with the numerous vendors and takes time. But if done well, it means that the various equipment manufactures and software developers are committed not just to working with the utility, but also to working with each other. The burden is on the vendors as well as the utility to demonstrate the functionality promised, which leads to lower risk and better outcomes. The interoperability

<sup>&</sup>lt;sup>11</sup> <u>https://smartgrowthamerica.org/program/national-complete-streets-coalition/</u>

<sup>&</sup>lt;sup>12</sup> https://e21initiative.org/

<sup>&</sup>lt;sup>13</sup> Order: Minnesota Integrated Distribution Planning Requirements for Xcel Energy. August 30, 2018.

<sup>&</sup>lt;sup>14</sup> Clean Energy Economy Minnesota Initial Comments. Mar 17., 2020. p.7.

<sup>&</sup>lt;sup>15</sup> Remote meter reading, remote disconnects/and connects, identifying power outage locations are a few examples of operation efficiencies that save labor but don't lead to customer empowerment.

is what makes an advanced meter more than just an expensive meter.

#### City of Minneapolis Summary of Updated Recommendations

City of Minneapolis continues to recommend the Commission accept the Company's 2020-2029 plan with reporting requirements<sup>16</sup> and enhancements as described below. (Changes to our original comments in **bold.)** 

**1.)** Based on experience gained with the IDP process to date, the Commission directs Xcel to work with stakeholders to identify improved screening criteria for potential NWA projects. *M*odifications may include consideration of:<sup>17</sup>

a. Project types: Such as including both capacity and health asset categories

b. Project timing: Following the Commission order more closely by including years 2-5 of the plan timeframe so as not to miss opportunities for energy storage and other distributed energy resources, which can be deployed quickly

- c. Technology options and associated cost assumptions
- d. \$2 million minimum cost threshold
- e. The NWA methodology and analytical assumptions

f. Issue an RFP for third-parties to identify NWA solutions and propose market-based project costs.

- g. Evaluation parameters:
  - i. expand the solutions evaluated to include additional NWA technologies using a portfolio approach, including energy efficiency, solar, energy storage, and demand side management deployed in combination with each other
  - ii. In addition to competitive procurements, Xcel should consider opportunities to source NWAs through customer program offerings (for example, overlaying a geo-targeted incentive onto an existing customer demand response program).
  - iii. In future IDPs, Xcel should explore the opportunity to combine NWAs and wires solutions so that the latter can be right-sized and complemented by NWAs in instances where an NWA alone may be unable to meet the full need.
- 2) Xcel be required to consider the energy and climate goals of the Minnesota communities it serves along with customer preference trends when responding to the Commission's Aug 2018 IDP order point 3.A.32 and July 2019 IDP order point 7 in future IDPs. In particular, distribution planning should include consideration of local community goals, such as local generation<sup>18</sup> and beneficial electrification.
- *3)* We believe that certification should be denied and that cost recovery should be addressed through the multi-year rate plan (MYRP) to allow adequate analysis and fairness for customers, as some of the cost will be part of the variable costs associated with energy and demand.<sup>19</sup>

<sup>&</sup>lt;sup>16</sup> <u>MN Dept of Commerce Reply Comments</u>. Apr 10, 2020. p.23.

<sup>&</sup>lt;sup>17</sup> Minneapolis agrees with Clean Energy Economy Minnesota that "Identifying specific definitions of NWA runs a risk of changing a broad policy concept (systems view) to a limited sense of responsibility in system planning towards marginal projects (discreet requirement). In an era of increasing options for solving system problems, the definition of NWA (vs. concept) may be lost in the need to identify a "requirement" rather than a "new way of thinking" for system planning." We recommend the stakeholder group keep this in mind to avoid being too prescriptive.

<sup>&</sup>lt;sup>18</sup> An example of this is the 10% by 2025 local generation goal in the City of Minneapolis Climate Action Plan.

<sup>&</sup>lt;sup>19</sup> Xcel noted in Reply Comments that Minneapolis' Comments confused certification it seeks with cost recovery

- 4) We recommend a separate docket to address Xcel's NWA opportunities and that the Commission direct the Company to form an NWA Stakeholder Advisory Group to inform and advance the Company's NWA analysis moving forward,<sup>20</sup> including the Company's NWA screening criteria and investment deferral opportunity assessment.<sup>21</sup> A pilot NWA program should be included under the new NWA docket.
  - An important element of NWA is allowing the market to propose creative solutions. A
    pilot can improve the accuracy of cost estimates by incorporating market data points
    and soliciting feedback from the market and stakeholders. For instance, Xcel could issue
    a pilot Request for Proposals to solicit responses from the market to determine what
    solutions are possible. NWA projects can be structured to enable scaling based on
    lessons learned.
- 5) The Commission should establish a pathway towards use of the Hosting Capacity Analysis (HCA) in the interconnection process that includes frequent updates, vetting of technical assumptions, and validation of results.<sup>22</sup>
- 6) Xcel must allow any [interested stakeholder or expert] to participate in stakeholder meetings to ensure that Xcel gets the best possible feedback.<sup>23</sup>
- 7) The Commission should adopt a specific goal of replacing the MN DIP's fast track screens with the more granular HCA. In order to get the HCA to the point where the Commission, Xcel, and stakeholders trust the results for use in the interconnection process, Xcel should update the HCA more frequently, allow stakeholders to vet assumptions, and develop a plan to verify its results.
- 8) Require Xcel to maximize customers' opportunity to save money with the AGIS. <sup>24</sup>
- 9) If Xcel wishes to pursue the Incremental System Investment initiative, the Company shall develop a formal ISI Plan based on specific demonstrated needs and a clear articulation of expected reliability improvements. The ISI Plan should be filed with any future request for cost recovery or certification, or with Xcel's next IDP, whichever comes first.<sup>25</sup>
- 10) We encourage the Commission to consider aligning the IDP process with the performance metrics framework by requiring Xcel to include, in its IDP, a report of its performance on metrics relevant to its distribution system including at minimum system-wide reliability, locational reliability and equity. Further, Xcel should file, in its performance metrics docket, any cost recovery proposals that it justifies based on improvements in the metrics developed in that docket.
- 11) Locational Reliability and Equity.

**1**. Xcel shall provide a map that illustrates the reliability of the Company's distribution system at a feeder-level.

<sup>&</sup>lt;sup>20</sup> Docket 19-666. <u>Initial Comments of the Environmental Law & Policy Center and Vote Solar</u>. March 17, 2020.

<sup>&</sup>lt;sup>21</sup> <u>Vote Solar Environmental Law and Policy Center Reply Comments</u>. Apr 10, 2020.

<sup>&</sup>lt;sup>22</sup> Docket 19-666. Initial Comments of Interstate Renewable Energy Council. Mar 17, 2020.

<sup>&</sup>lt;sup>23</sup> *Id.*, OAG Reply Comments.

<sup>&</sup>lt;sup>24</sup> Institute for Local Self Reliance Reply Comments.

<sup>&</sup>lt;sup>25</sup> Fresh Energy Initial Comments

 Xcel shall describe how its proposed reliability investments will prioritize those portions of its system with poor reliability performance.
 Xcel shall explain how its proposed reliability investments will advance equity across its service territory.<sup>26</sup>

12) We recommend the Company negotiate favorable terms with AGIS vendors that protects the Company and its customers investments, particularly when equipment functionality depends on interoperability with other vendor systems.

The City of Minneapolis appreciates the resources that Xcel, the Commission, Commission staff, and engaged stakeholders have committed to the IDP process. Thank you for your consideration of our comments.

Sincerely,

R.W. Havg

Mr. Kim W. Havey, LEED AP, AICP Division of Sustainability

<sup>&</sup>lt;sup>26</sup> <u>Vote Solar, Environmental Law and Policy Center</u> Reply Comments. Apr 10, 2020.

STATE OF MINNESOTA )

## ) ss.

## **CERTIFICATE OF SERVICE**

COUNTY OF HENNEPIN )

I, Kim W. Havey, of the City of Minneapolis, County of Hennepin, State of Minnesota, affirm that on the 22nd day of April 2020, I served a copy of the following via e-mail and/or via U.S. Mail:

## Supplemental Comments of the City of Minneapolis regarding Docket No. 19-666

at the last known mailing addresses and email addresses of said entities/individuals on the attached Service List. If by U.S. Mail, I placed said document in postage prepaid envelope and placed same in the U.S. Post Office in Minneapolis, Minnesota for delivery by the United States Postal Service.

K.W. Havg

Kim W. Havey

Last Name	First Email Name		Company Name	Delivery Method	View Trad e Secr et
Aafedt	David	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Electronic Service	No
Allen	Michael	michael.allen@allenergysolar. com	All Energy Solar	Electronic Service	No
Amster Olzweski	David	david@mysunshare.com	SunShare, LLC	Electronic Service	No
Anderson	Ellen	ellena@umn.edu	325 Learning and Environmental Sciences	Electronic Service	No
Anderson	Christophe r	canderson@allete.com	Minnesota Power	Electronic Service	No
Archer	Alison C	aarcher@misoenergy.org	MISO	Electronic Service	No
Ascheman	Mara	mara.k.ascheman@xcelenerg y.com	Xcel Energy	Electronic Service	No
Attanasio	Donna	dattanasio@law.gwu.edu	George Washington University	Electronic Service	No
Bailey	John	bailey@ilsr.org	Institute For Local Self-Reliance	Electronic Service	No
Baldwin Auck	Sara	sarab@irecusa.org	Interstate Renewable Energy Council, Inc.	Electronic Service	No
Baranko	Gail	gail.baranko@xcelenergy.com	Xcel Energy	Electronic Service	No
Bayles	Jessica L	Jessica.Bayles@stoel.com	Stoel Rives LLP	Electronic Service	No
Bertrand	James J.	james.bertrand@stinson.com	STINSON LLP	Electronic Service	No
Bertsch	Derek	derek.bertsch@mrenergy.com	Missouri River Energy Services	Electronic Service	No
Black	William	bblack@mmua.org	MMUA	Electronic Service	No
Bradley	Kenneth	kbradley1965@gmail.com	N/A	Electronic Service	No
Brama	Elizabeth	ebrama@taftlaw.com	Taft Stettinius & Hollister LLP	Electronic Service	No
Brekke	Jon	jbrekke@grenergy.com	Great River Energy	Electronic Service	No
Briggs	Sydney R.	sbriggs@swce.coop	Steele-Waseca Cooperative Electric	Electronic Service	No
Bring	Mark B.	mbring@otpco.com	Otter Tail Power Company	Electronic Service	No
Brusven	Christina	cbrusven@fredlaw.com	Fredrikson Byron	Electronic Service	No
Bull	Michael J.	mbull@mncee.org	Center for Energy and Environment	Electronic Service	No
Burdette	Jessica	jessica.burdette@state.mn.us	Department of Commerce	Electronic Service	No
Burwen	Jason	j.burwen@energystorage.org	Energy Storage Association	Electronic Service	No
CLOBES	LORI	lclobes@mienergy.coop	MiEnergy Cooperative	Electronic Service	No
Canaday	James	james.canaday@ag.state.mn. us	Office of the Attorney General-RUD	Electronic Service	No
Carnival	Douglas M.	dmc@mcgrannshea.com	McGrann Shea Carnival Straughn & Lamb	Electronic Service	No

Choquette	Ray	rchoquette@agp.com	Ag Processing Inc.	Electronic Service	No
Coffman	John	john@johncoffman.net	AARP	Electronic Service	No
Colburn	Kenneth A.	kcolburn@symbioticstrategies. com	Symbiotic Strategies, LLC	Electronic Service	No
Commerce Attorneys	Generic Notice	commerce.attorneys@ag.state .mn.us	Office of the Attorney General-DOC	Electronic Service	Yes
Conlin	Riley	riley.conlin@stoel.com	Stoel Rives LLP	Electronic Service	No
Crocker	George	gwillc@nawo.org	North American Water Office	Electronic Service	No
Crowell	Arthur	Crowell.arthur@yahoo.com	A Work of Art Solar	Electronic Service	No
Dahlberg	David	davedahlberg@nweco.com	Northwestern Wisconsin Electric Company	Electronic Service	No
Denniston	James	james.r.denniston@xcelenerg y.com	Xcel Energy Services, Inc.	Electronic Service	No
Dieren	Curt	curt.dieren@dgr.com	L&O Power Cooperative	Electronic Service	No
Doyle Fontaine	Carlon	carlon.doyle.fontaine@senate. mn	MN Senate	Electronic Service	No
Draxten	Brian	bhdraxten@otpco.com	Otter Tail Power Company	Electronic Service	No
Eide Tollefson	Kristen	healingsystems69@gmail.com	R-CURE	Electronic Service	No
Eilers	Rebecca	rebecca.d.eilers@xcelenergy. com	Xcel Energy	Electronic Service	No
Eleff	Bob	bob.eleff@house.mn	Regulated Industries Cmte	Electronic Service	No
Engelking	Betsy	betsy@geronimoenergy.com	Geronimo Energy, LLC	Electronic Service	No
Er	Oncu	oncu.er@avantenergy.com	Avant Energy, Agent for MMPA	Electronic Service	No
Erickson	James C.	jericksonkbc@gmail.com	Kelly Bay Consulting	Electronic Service	No
Erickson	Jim	jim.g.erickson@xcelenergy.co m	Xcel Energy	Electronic Service	No
Farrell	John	jfarrell@ilsr.org	Institute for Local Self-Reliance	Electronic Service	No
Ferguson	Sharon	sharon.ferguson@state.mn.us	Department of Commerce	Electronic Service	No
Franzen	Nathan	nathan@geronimoenergy.com	Geronimo Energy, LLC	Electronic Service	No
Galvin	Hal	halgalvin@comcast.net	Provectus Energy Development IIc	Electronic Service	No
Garvey	Edward	garveyed@aol.com	Residence	Electronic Service	No
Garvey	Edward	edward.garvey@AESLconsulti ng.com	AESL Consulting	Electronic Service	No
Gerhardson	Bruce	bgerhardson@otpco.com	Otter Tail Power Company	Electronic Service	No
Gleckner	Allen	gleckner@fresh-energy.org	Fresh Energy	Electronic Service	No
Gonzalez	Janet	Janet.gonzalez@state.mn.us	Public Utilities Commission	Electronic Service	No
Gulden	Timothy	timothy.gulden@yahoo.com	Winona Renewable Energy, LLC	Electronic Service	No
Hainault	Tony	anthony.hainault@co.hennepi n.mn.us	Hennepin County DES	Electronic Service	No

Havey	Kim	kim.havey@minneapolismn.go v	City of Minneapolis	Electronic Service	No
Headlee	Todd	theadlee@dvigridsolutions.co m	Dominion Voltage, Inc.	Electronic Service	No
Hedlund	Amber	amber.r.hedlund@xcelenergy. com	Northern States Power Company dba Xcel Energy-Elec	Electronic Service	No
Hendricks	Jared	jared.hendricks@owatonnautili ties.com	Owatonna Public Utilities	Electronic Service	No
Henkel	Annete	mui@mnutilityinvestors.org	Minnesota Utility Investors	Electronic Service	No
Henriksen	Shane	shane.henriksen@enbridge.co m	Enbridge Energy Company, Inc.	Electronic Service	No
Норре	Michael	il23@mtn.org	Local Union 23, I.B.E.W.	Electronic Service	No
Hubbard	Jan	jan.hubbard@comcast.net	N/A	Electronic Service	No
Inge	Geoffrey	gbinge@kinectenergy.com	Kinect Eenrgy Group	Electronic Service	No
Jacobson	Casey	cjacobson@bepc.com	Basin Electric Power Cooperative	Electronic Service	No
Jacobson	Ralph	ralphj@ips-solar.com	N/A	Electronic Service	No
Jaffray	John S.	jjaffray@jjrpower.com	JJR Power	Electronic Service	No
Jenkins	Alan	aj@jenkinsatlaw.com	Jenkins at Law	Electronic Service	No
Jensen	Linda	linda.s.jensen@ag.state.mn.u s	Office of the Attorney General-DOC	Electronic Service	No
Johnson	Richard	Rick.Johnson@lawmoss.com	Moss & Barnett	Electronic Service	No
Johnson Phillips	Sarah	sarah.phillips@stoel.com	Stoel Rives LLP	Electronic Service	No
Jones	Nate	njones@hcpd.com	Heartland Consumers Power	Electronic Service	No
Kampmeyer	Michael	mkampmeyer@a-e-group.com	AEG Group, LLC	Electronic Service	No
Kaufman	Mark J.	mkaufman@ibewlocal949.org	IBEW Local Union 949	Electronic Service	No
Kjos	Ted	tkjos@mienergy.coop	MiEnergy Cooperative	Electronic Service	No
Klein	Brad	bklein@elpc.org	Environmental Law & Policy Center	Electronic Service	No
Koehler	Thomas	TGK@IBEW160.org	Local Union #160, IBEW	Electronic Service	No
Kopel	Chris	chrisk@CMPASgroup.org	Central Minnesota Municipal Power Agency	Electronic Service	No
Krambeer	Brian	bkrambeer@mienergy.coop	MiEnergy Cooperative	Electronic Service	No
Kramer	Jon	sundialjon@gmail.com	Sundial Solar	Electronic Service	No
Krause	Michael	michaelkrause61@yahoo.com	Kandiyo Consulting, LLC	Electronic Service	No
Krikava	Michael	mkrikava@taftlaw.com	TAFT Stettinius & Hollister, LLP	Electronic Service	No
Lacey	Matthew	Mlacey@grenergy.com	Great River Energy	Electronic Service	No
Laney	Carmel	carmel.laney@stoel.com	Stoel Rives LLP	Electronic Service	No
Larson	Peder	plarson@larkinhoffman.com	Larkin Hoffman Daly & Lindgren, Ltd.	Electronic Service	No

Larson	Douglas	dlarson@dakotaelectric.com	Dakota Electric Association	Electronic Service	No
Larson	James D.	james.larson@avantenergy.co m	Avant Energy Services	Electronic Service	No
Leischow	Dean	dean@sunrisenrg.com	Sunrise Energy Ventures	Electronic Service	No
Levenson Falk	Annie	annielf@cubminnesota.org	Citizens Utility Board of Minnesota	Electronic Service	No
Long	Ryan	ryan.j.long@xcelenergy.com	Xcel Energy	Electronic Service	No
Ludwig	Susan	sludwig@mnpower.com	Minnesota Power	Electronic Service	No
Maini	Kavita	kmaini@wi.rr.com	KM Energy Consulting, LLC	Electronic Service	No
Marshall	Pam	pam@energycents.org	Energy CENTS Coalition	Electronic Service	No
Martinka	Mary	mary.a.martinka@xcelenergy. com	Xcel Energy Inc	Electronic Service	No
Mason	Samuel	smason@beltramielectric.com	Beltrami Electric Cooperative, Inc.	Electronic Service	No
McNary	Dave	David.McNary@hennepin.us	Hennepin County DES	Electronic Service	No
McWilliams	John	John.McWilliams@DairylandP ower.com	Dairyland Power Cooperative	Electronic Service	No
Melone	Thomas	Thomas.Melone@AllcoUS.co m	Minnesota Go Solar LLC	Electronic Service	No

## Paper Service Member(s)

Last Name	First Name	Company Name	Address	Delivery Method	View Trad e Secr et
Kefer	Jennife r	Alliance for Industrial Efficiency	David Gardiner & Associates, LLC, 2609 11th St N, Arlington, VA-22201-2825	Paper Service	No
Ketchu m	Julie	Waste Management	20520 Keokuk Ave Ste 200, Lakeville, MN-55044	Paper Service	No
Lowe	Benja min	Alevo USA Inc.	101 S Stratford Rd Ste 210, Winston Salem, NC-27107-4224	Paper Service	No
Reinha rdt	John C.	Laura A. Reinhardt	3552 26th Ave S, Minneapolis, MN-55406	Paper Service	No