



February 16, 2021

-VIA ELECTRONIC FILING-

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

RE: 2019-2020 BIENNIUM AND 2020 LEGISLATIVE REPORT DOCKET NOS. E002/M-00-1583, E002/M-03-1883, E002/M-07-675 AND E002/M-12-1278

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy, submits the enclosed 2019-2020 Biennial Report pursuant to the Minnesota Public Utilities Commission's April 20, 2001 Order and the 2020 Annual Report to the Minnesota State Legislature pursuant to Minn Stat. § 116C.779.

In order to streamline and provide a more organized report due to the lower number of active RDF grant projects currently in progress (Cycle 4 projects remain), the Company has reformatted this year's report with information that provides historical and trending data for the RDF account. For this reason and because the Company provides significant information about the status of the RDF in its annual rate rider and the quarterly reports about the ongoing grant funded projects, the Company believes that providing one concise document rather than individual Biennial and Legislative reports provides useful information for both the Commission and the Legislature.

We have electronically filed this document with the Minnesota Public Utilities Commission and a copy provided to the Chairs and Ranking Minority Members of the legislative committees with jurisdiction over energy policy on projects funded by the RDA and copies have been served on the parties on the attached service list.

If you have any questions regarding this filing, please contact me at <u>bria.e.shea@xcelenergy.com</u> or (612) 330-6064.

Sincerely,

/s/

BRIA SHEA
DIRECTOR, REGULATORY AND STRATEGIC ANALYSIS

c: Official Service List

Xcel Energy Renewable Development Fund (RDF)

Annual Report to the Minnesota State Legislature and Minnesota Public Utilities Commission

February 16, 2021

Background

The Renewable Development Fund (RDF) program was first authorized by the Minnesota Legislature in 1994 in conjunction with legislation regarding the Prairie Island nuclear generating plant in Red Wing, Minnesota. As a condition of storing spent nuclear fuel in dry casks at Prairie Island, the RDF statute required Xcel Energy to transfer \$500,000 per year for each dry cask containing spent fuel to a renewable energy fund, which amounted to \$9 million annually. In 2003, this statute was amended to extend the life of the nuclear-waste storage at the Prairie Island plant; at that time the amount to be transferred into the RDF was increased to a fixed sum of \$16 million annually. In 2007, the statute was further amended to add an additional assessment for dry casks stored at our Monticello nuclear generating plant in Monticello, Minnesota. As described in more detail below, the annual amount set aside for RDF funding has increased throughout the years as the Company has placed in service more dry cask storage at its Prairie Island and Monticello nuclear generating plants.

While the Renewable Development Fund Statute, Minn. Stat. § 116C.779, has been amended several times since its creation, 2017 Minnesota Session Laws Chapter 94, Article 10, Section 3 (the 2017 Legislation) made significant changes to the RDF program including, among other things:

- the creation of a new Renewable Development Account (RDA) in the special revenue fund in the state treasury, which is administered by the commissioner of management and budget (MMB) whereas the monies collected under previous versions of the statute were known as the RDF, and administered by Xcel Energy;
- changes to the purposes for which RDA funds can be expended in future funding cycles;
- the contemplation of a new RDA advisory group (though the existing RDF advisory group remains for the purposes of oversight over the RDF's prior funding cycles);
- changes to the process for soliciting, selecting, and awarding RDA funds in future funding cycles; and
- changes in reporting requirements:
 - o a RDA advisory group must submit this annual report on the projects funded by the RDA for the prior year and all previous years (whereas previous versions of the annual report were submitted by Xcel Energy).
 - o the commissioner of management and budget will report to the legislature on the availability of funds in and obligations of the RDA.

Essentially, the 2017 Legislation created two types of programs under the statute—the new RDA, which is funded by the annual transfer to the MMB (less the current legislative mandates) and the legacy RDF grants (which continue to be referred to as the RDF).

Under Minn. Stat. § 116C.779 subdiv. 1(p), the RDA advisory group is to provide a report to the chairs and ranking minority members of the legislative committees with jurisdiction over energy policy on projects funded by the RDA. The 2017 Legislation did not indicate the entity (or entities) that have responsibility to create the RDA advisory group. Due to Xcel Energy's familiarity with the projects funded previously under the legacy RDF, its continuing obligation for annual reporting with the Minnesota Public Utilities Commission, and that RDA advisory group process has not yet been established, Xcel Energy is submitting this report on behalf of the RDA advisory group.

Financial Impact of the RDF and RDA

According to Minn. Stat. § 116C.779 subdiv (1)(c), (d) and (e), Xcel Energy must annually transfer to the RDA \$500,000 for every cask at Prairie Island nuclear generating plant and \$350,000 for every cast at Monticello nuclear plant, but the Company can withhold from that transfer RDF payments for ongoing legislative programs previously enacted and the two additional expenditures approved by the legislature in the 2017 Legislation. Because of the number of casks at Prairie Island and Monticello, in 2020, payments for RDA or RDF purposes amounted to \$34 million annually and a cumulative total of \$425.95 million has been set-aside for RDA or RDF purposes since inception.

The costs of the RDA and RDF are recovered from Xcel Energy's customers through an adjustable surcharge on customer bills as part of their monthly charges for electricity. This surcharge mechanism is known as a rate rider. Each year, on October 1, Xcel Energy submits to the Public Utilities Commission a RDF summary report containing a proposed RDF rate rider charge for the upcoming year and an annual financial report which summaries the RDF program's past expenses and a two-year expense forecast. In 2020, the RDF charge was \$0.001289 per kWh, or \$0.87 per month for the average residential customer using 675 kWh.

Despite a statutory provision laying out specific purposes for which these monies should be spent, Minn. Stat. §116C.779 subdiv. (1)(j) a decreasing amount is spent on grants furthering those purposes. As can be seen in the chart below and detailed in **Attachment A**, the majority of the monies set aside under this program have gone to various legislative mandates, with the Company's transfer to the MMB for purposes

of funding the RDA making up an increasing share of the annual payment. A very small amount of money is spent on administration of the RDA and RDF.

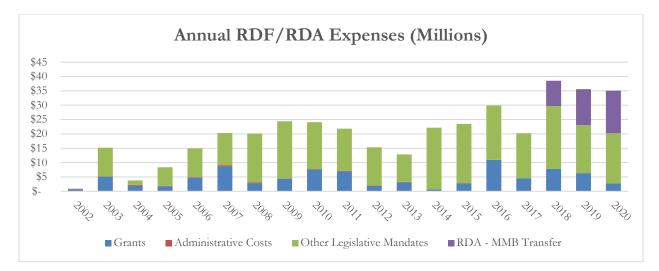


Figure 1: Annual RDF/RDA Costs for Recovery

Current Legislative Mandates

A. Renewable Energy Production Incentives

Legislation in 2003 created the Renewable Energy Production Incentive (REPI) program to provide production incentives for electricity generated by wind, biogas, and hydro. Minn. Stat. §116C.779, Subd. 2. mandates that annual REPI payments up to \$10.9 million must be made available from the RDF account for qualifying projects, including up to \$9.4 million annually for electricity generated by wind energy conversion systems and up to \$1.5 million annually for on-farm biogas recovery facilities and hydroelectric facilities. The REPI program provides an incentive payment of 1.0 cents per kWh for wind projects through December 31, 2018, for biogas projects through December 31, 2021. The Minnesota Department of Commerce administers this program. REPI payments since program inception have totaled approximately \$93 million. This program is expected to end in 2021.

B. Solar Rebates (Minnesota Bonus)

In 2010, the Minnesota Legislature approved a measure to utilize \$21 million from the RDF program for solar rebates called Minnesota Bonus. This program was available to customers for incentives awarded from 2011 to 2013. Minn. Stat. §116C.7791

specifies that Xcel Energy would administer the RDF rebates for solar photovoltaic (PV) systems less than 40 kW installed by customers in the Company's Minnesota service territory. The RDF solar rebates were only available for systems that use solar modules manufactured or assembled in Minnesota. Minnesota Bonus rebates were first disbursed in 2011. No additional capacity was awarded since the program closed in 2014. Most of the projects were installed during 2014 and 2015, however a very small number of additional projects continued to be completed. Payments have continued for a total reimbursement of over \$20 million for the program thus far. The Minnesota Bonus provided roughly 6.4 MW of installed capacity from 280 projects.

C. Solar*Rewards

In 2013, Minn. Stat. §116C.7792 approved a measure to establish a solar energy incentive program to be operated for five consecutive calendar years beginning in 2014 with no specifications around where panels are manufactured. There have been several changes to this legislation over the years; we have summarized these below:

- Minn. Stat. §116C.7792, as revised by S.F. 1456 in 2017, extended the program through 2021.
- In 2018, H.F. 3232 further revised this statute and increased allowable name plate capacity from 20 kWdc to 40 kWdc. This revision also allows for more than one solar system per premise to be eligible for this incentive program, subject to an aggregate cap of no more than 40 kWdc. Further, the solar system eligible for incentive must be sized to less than 120 percent of the customer's on-site annual energy consumption when combined with other distributed generation resources.
- In 2019, 1st Special Session, Chapter 7, H.F. No. 2 revised the statutue to allow for up to 40 kWac rather than 40 kWdc which essentially increased the nameplate capacity of eligible systems.
- In 2020, H.F. 1842 was signed into law to again revise the stautue to extend the program incentive allocation from the RDA thorugh 2022, require unspent funds to be reallocated towards the following years and increase allocation for 2021 from \$5 million to \$10 million.

Since this program's inception using RDF/RDA funding in 2014, 38.8 MW of solar have been installed (roughly 3,867 systems).

D. City of Benson

In 2017, the Minnesota Legislature approved an appropriation of \$20,000,000 over a four-year period (fiscal years 2018-2021) to the City of Benson for purposes of economic development. The City of Benson Initiative established by Minn. Stat. 116C.779 subdiv. 1(f) explains that if the Minnesota Public Utilities Commission

"approves a new or amended power purchase agreement, the termination of a power purchase agreement, or the purchase and closure of a facility . . ., with an entity that uses poultry litter to generate electricity" the Company shall provide grants to the city for the purposes of economic development. Cancelation of the Fibromen PPA was approved by the Commission on January 23, 2018 (Docket No. E-002/M-17-530) and by the NDPSC on June 27, 2018 (Case No. PU-17-270).

E. Laurentian Energy Authority

In 2017, the Minnesota Legislature approved an appropriation of \$34,000,000 over a five-year period (fiscal years 2018-2022) to the Laurentian Energy Authority, LLC (LEA) to assist the transition required by the termination of the power purchase agreement (PPA). The LEA Initiative established by Minn. Stat. 116C.779 subdiv. 1(g) explains that if the Commission "approves a new or amended power purchase agreement, or the termination of a purchase power agreement . . . with an entity owned or controlled, directly or indirectly, but two municipal utilities located north of Constitutional Route No. 8, that was previously used to meet the biomass mandate" the Company shall enter into a grant contract for the above-referenced amount. Cancellation of the LEA PPA was approved by the Commission on January 23, 2018 (Docket No. E-002/M-17-551) and by the North Dakota Public Service Commission (NDPSC) on June 27, 2018 (Case No. PU-17-270).

Company Transfer to the MMB for the RDA

Under the 2017 Legislation, Minn. Stat. § 116C.779, subdiv. 1(b)-(d) requires the Company to transfer to "the renewable development account" managed by MMB the annual obligation for the storage of dry casks located at the Prairie Island power plant and the Monticello nuclear power plant less the amount necessary to pay its obligations for legislative payments. In 2020, the Company's obligation for the storage of dry casks located at Prairie Island and Monticello was \$34,000,000. Subtracting the amount of the legislative mandates described above from this obligation results in the amount the Company must transfer to the MMB pursuant to the 2017 Legislation. The amount transferred to the MMB is variable and dependent upon the annual obligation for the storage of dry casks located at the Prairie Island power plant and the Monticello nuclear power plant less the amount necessary to pay its obligations for legislative payments. The payment to the MMB is statutorily required to be made in January each year.

Under Minn. Stat. § 116C.779, the MMB is obligated to administer the RDA account and provide a written report each year by February 1 to the chairs and ranking minority members of the senate and house committees with jurisdiction over energy

policy and financial regarding the availability of RDA funds and obligations of the RDA. The Company therefore defers to the MMB's report on those issues.

Under the 2017 Legislation, there is no entity that "manages" the RDA, but the MMB does "administer" the RDA. The 2017 Legislation also seems to contemplate a new RDA advisory group, potentially with different composition than the legacy RDF advisory group (described below), with more responsibility for preparing the requests for proposals and making funding recommendations to the Company. The 2017 Legislation purported to create a process for a RDA advisory group to design request for proposals, evaluate them and provide funding recommendations to the Company. The process created by the 2017 Legislation, however, omits certain critical details and has internal inconsistencies. To date, a RDA advisory group had not been created and therefore there have been no projects funded by the RDA in the prior year or any previous year.

Legacy RDF Grant Program

The 2017 Legislation struck a provision that referenced the Company's management of the RDF, but Xcel Energy maintains responsibility for the day-to-day administration of the legacy RDF pursuant to Minnesota Public Utilities Commission precedent. A seven-member advisory group, representing the interests of various stakeholder groups, assist Xcel Energy in the administration of the remaining legacy RDF grants. Further details on the members of the RDF advisory group can be found in **Attachment B**.

For informational purposes, **Attachment C** includes a complete list of projects for all years that have been awarded RDF grant awards, prior to the enactment of the 2017 Legislation. As Table 1 below shows, 74 legacy RDF projects have been completed and 7 are active.

Туре	Completed	Active as of 12/31/2020	Total
Energy Production	24	2	26
Research	47	5	52
Higher Education Block Grant	3	0	3
Total	74	7	81

Conclusion

Xcel Energy appreciates this opportunity to provide this report summarizing the projects funded by the RDA, and also providing information about the projects funded by the RDF for informational purposes, through 2020.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
OBLIGATIONS																			
From Cask Fee per Minn. Stat. s. 116C.779	8,500,000	16,000,000	16,000,000	16,000,000	16,000,000	16,000,000	19,500,000	19,500,000	19,500,000	19,500,000	19,500,000	22,750,000	24,250,000	25,250,000	25,600,000	25,600,000	32,500,000	32,500,000	34,000,000
EXPENDITURES																			
Legislative Mandates																			,
REPI (sum of (a)-(c) below)		37,785	1,513,011	4,310,426	8,015,781	9,669,336	9,048,693	9,757,488	9,632,028	9,034,006	9,017,890	7,412,902	5,696,934	4,652,960	2,831,219	1,169,306	840,405	516,297	614,139
(a) REPI Wind		37,785	1,478,867	2,561,136	3,541,356	5,364,843	4,876,695	5,509,788	5,461,793	5,578,659	6,027,256	5,648,214	4,780,993	3,496,069	1,719,730	400,116	82,508	·	
(b) REPI Biogas & Hydro			34,144	42,298	62,426	36,085	36,823	292,335	392,045	522,260	523,737	462,556	380,557	1,156,891	1,111,489	769,190	757,897	516,297	614,139
(c) REPI 1st Wind			0	1,706,992	4,411,999	4,268,408	4,135,176	3,955,365	3,778,190	2,933,087	2,466,897	1,302,132	535,384						
U of M		10,000,000																	
AURI				150,000															
Excelsior				2,000,000	2,000,000	1707182	390,776	3,171,035	731,007										
Next Gen Incentive						3812511	7,625,000	3,812,500											
PCA REPI Pay						-4,000,000													
IREE Program Support								2,500,000	5,000,000	5,000,000	2,500,000								
OES Program Support								675,000	987,500	312,500									
Solar Rebates										382,541	1,808,050	2,119,059	3,686,335	3,950,536	3,513,790	2,149,212	1,650,546	447,620	43,157
DOC Solar Incentive Program													12,021,295	12,014,671	12,073,296	11,868,026		·	
Solar Rewards													55,503	66,743	523,430	594,055	725,654	2,409,068	3,419,232
DEED 21st Century Fund																	1,000,000		
Fibrominn/Benson Power																	4,000,000	6,500,000	6,500,000
Laurentian Energy																	13,600,000	6,800,000	6,800,000
Solar Energy Standar Exemption																	77,123	39,210	55,651
Transfer to MMB for RDA																	8.817.885	12.556.510	14,852,115
																	, ,	, ,	
RDF Grant Payments (sum of (a)-(d) below)	715,901	5,066,568	1,917,256	1,761,907	4,753,411	8,677,031	2,847,851	4,362,038	7,595,376	6,943,768	1,902,837	3,142,992	680,843	2,809,764	10,917,325	4,464,752	7,793,971	6,330,850	2,774,641
(a) Cycle 1	715,901	5,066,568	1,917,256	1,606,660	1,572,120	684,011	62,748	46,620											
(b) Cycle 2				155,247	3,181,291	7,993,020	1,950,103	1,181,791	242,216	1,500,000	197,741	375,794	592,355						
(c) Cycle 3							835,000	3,133,627	7,353,160	5,443,768	1,705,096	2,767,198	88,488						1
(d) Cycle 4														2,072,213	10,917,325	4,464,752	7,793,971	6,330,850	2,774,641
Admininstrative Costs	154,574	53,350	342,320	135,366	188,682	431,952	225,705	118,052	147,234	139,629	101,533	178,458	24,781	15,741	25,343	17,051	956		

RDF advisory group as of December 31, 2020

- Lise Trudeau, engineer
 Minnesota Division of Energy Resources
 Representing residential customers
- Vacancy
 Representing commercial and industrial customers
- Heather Westra Representing Prairie Island Indian community
- Kevin Schwain, manager emerging customer program NSP-Minnesota Representing NSP-Minnesota
- Tami Gunderzik, senior manager product portfolio NSP-Minnesota Representing NSP-Minnesota
- Mike Bull, Director of Policy and Communications MN Center for Energy and Environment
- Vacancy
 Representing environmental community

RDF Administration

- Bria Shea, program manager
- Pamela Gibbs, grant administrator

		Project End						Attachment C,	Page 1 of 4 Grant Funds
Project Name	Contract	Date	Status	Type	Cycle	Resource	Project Description	RDF Award	Disbursed
University of Minnesota (Dairy)	RD4-2	7/28/20	complete	RD	4	Solar/Wind	Model a "net-zero" energy dairy parlor at the West Central Research and Outreach Center by integratingrol 20 kW wind and 54 kW solar with storage.	\$982,408	\$683,970
City of Hutchinson	EP4-41	6/1/16	complete	EP	4	Solar	Installed 400 kW photovoltaic fixed-tilt array on a capped municipal landfill and use the power at the adjecent wastewater treatment facility.	\$958,369	\$958,369
Best Power Int'l (St. John's Expansion)	EP4-6	3/16/15	complete	EP	4	Solar	Installed a 182 kW photovoltaic fixed-tilt array at St. John's solar farm for a side-by-side comparison with the existing 400 kW single-axis tracking array.	\$172,213	\$172,213
Best Power Int'l (St. John's)	EP3-3	5/8/10	complete	EP	3	Solar	Installed a 400 kW photovoltaic facility at St. John's University to demonstrate commercial viability of solar power in Minnesota.	\$1,994,480	\$1,994,480
University of Minnesota (Biomass)	RD3-23	8/1/11	complete	RD	3	Biomass	Evaluated economic and technical issues related to biomass fuel and integrated gasification combined cycle technology.	\$819,159	\$729,717
University of North Dakota (Digester)	RD3-68	4/30/12	complete	RD	3	Biomass	Field demonstration of a hydrogen sulfide reduction process at the anaerobic digester on the 1,000-acre Haubenschild Dairy Farm.	\$970,558	\$970,480
Minnesota Valley Alfalfa Producers	RD3-69	7/15/15	complete	RD	3	Biomass	Researching application of kinetic disintegration technology to produce biomass pellets from feedstocks with varying levels of moisture.	\$1,000,000	\$825,489
Energy Performance Systems	RD-50	2/19/13	complete	RD	2	Biomass	Built and demonstrated equipment for an integrated system to supply farm grown trees as a biomass feedstock to a power plant.	\$957,929	\$957,929
Blattner and Sons	BW-06	12/15/02	complete	RD	1	Wind	Developed a platform that would climb the tower to eliminate that need for crane to construct very tall wind turbines.	\$68,470	\$62,346
University of Minnesota (Torrefaction)	RD4-11	6/30/2021	current	RD	4	Biomass	Demonstrate a prototypic torrefaction bioconversion process and distributed electric generation.	\$1,899,449	\$1,524,280
West Central Telephone Assoc.	RD3-58	5/12/10	complete	RD	3	Wind/Solar	Designed and tested configurations and specifications of a hybrid wind/solar power system for distributed generation in remote locations.	\$137,000	\$137,000
University of North Dakota (Liguifaction)	RD3-66	4/10/12	complete	RD	3	Biomass	Designed and demonstrated a mobile biomass liquefaction system that can utilize high moisture wood waste.	\$999,065	\$998,697
Mesaba/Excelsior Energy	EP-43	6/24/10	complete	EP	2	Innovative	To design the basis of a base load Integrated Gasification Combined-Cycle (IGCC) power generation facility.	\$10,000,000	\$10,000,000
CMEC	EP-44	3/12/11	complete	EP	2	Biomass	Designed 959-kW gasification plant to utilized distillers grains and local biomass. Refractory issues prevented completion of the facility.	\$2,000,000	\$400,000
University of Florida	RD-34	5/16/09	complete	RD	2	Biomass	Demonstrated two-stage anaerobic digester at American Crystal Sugar in Moorhead, MN to generate methane for conversion to electricity.	\$999,995	\$996,875
Gas Technology Institute	RD-38	10/12/07	complete	RD	2	Biomass	Developed a method to extract hydrogen from biomass gasification using membrane separation technologies.	\$861,860	\$861,860
Region 5 Development Commissin	EP4-44	7/9/19	complete	EP	4	Solar	Install not more than 1,493 kw of direct-current (kwdc) solar capacity at two public schools and multiple community colleg campuses in Crow Wing and Todd Counties. It will include roof and ground mount photovoltaic (PV) arrays. Electric storage and EV charging stations that total 144 kW storage capacity will be installed at a minimum of two locations.	\$1,993,659	\$1,993,660
Bergey Windpower Company	EP4-24	3/30/21	current	EP	4	Wind	Install 500 kW small wind capacity in the jurisdictions of Benton, Lincoln, Meeker, Murray, Nobles, Pipestone, and Stearns counties by constructing 50 distributed 10 kW microturbines.	\$1,106,600	\$0
Minnesota State Colleges & Universities	HE4-1	11/30/20	complete	HE	4	All	Created a research program to stimulate the development of renewable electric energy technologies within Minnesota.	\$5,500,000	\$5,500,000
MN DNR	EP3 - 13	3/12/13	complete	EP	3	Solar	Installed 114 kW of solar photovoltaic generation at various state parks and developed a renewable energy strategy for future DNR facilities.	\$894,000	\$878,966
Coaltec Energy USA	RD3-77	4/22/18	complete	RD	3	Biomass	Demonstrated the feasibility of biomass gasification on a commercial turkey farm to generate electricity and heat.	\$1,000,000	\$850,000
Dragonfly Solar	EP4-29	5/8/18	complete	EP	4	Solar	Install a fixed-tilt 997.5 kW solar array within the footprint of several existing wind farms.	\$1,650,000	\$1,650,000
City of Red Wing	RD4-8	2/28/21	current	RD	4	Biomass	Research will provide operational and performance data to improve the cost effectiveness and reduce potential environmental contaminants in the processing of refuse derived fuels.	\$1,999,500	\$1,599,473
Diamond K	EP-51	5/18/14	complete	EP	2	Biomass	Installed a 300 kW of biomass generated and anaerobic digester at the Diamond K Dairy in Winona County, Minnesota.	\$936,530	\$936,530

	A.D. 07	6/0/00		ED		ъ.	Was to install a 1.7 MW genset and study removal of hydrogen sulfide created during anaerobic digestion	φ1 200 000	. ago = o
AnAerobics, Inc	AB-07	6/3/03	complete	EP	1	Biomass	but had site control issues.	\$1,300,000	\$1,100,000
Best Power Int'l (School Sisters)	EP4-5	10/28/15	complete	EP	4	Solar	Installed a 849 kW solar facility at the Mankato campus of the Central Pacific Province of the School Sisters of Notre Dame.	\$900,000	\$900,000
Outland Renewable Energy	EP3-10	4/1/13	complete	EP	3	Solar	Installed 2 MW photovoltaic facility near Slayton, MN to demonstrate the benefits of utility scale use of photovoltaics in Minnesota.	\$2,000,000	\$2,000,000
Xcel Energy	RD3-12	12/19/11	complete	RD	3	Wind	Installed a 1.0 MW sodium sulfur battery adjacent a wind farm to validate the value of energy storage for greater wind energy penetration.	\$1,000,000	\$1,000,000
Hilltop	EP-26	3/2/09	complete	EP	2	Wind	Installed a 1.5 MW General Electric wind turbine in Lyon County with 100 percent of the electricity sold to Xcel Energy.	\$1,200,000	\$1,200,000
St. Olaf	EP-39	4/30/07	complete	EP	2	Wind	Installed a 1.65 MW Micon wind turbine on campus.	\$1,500,000	\$1,500,000
Rural Advantage	RD-27	4/12/09	complete	RD	2	Biomass	Demonstrated the commercial production of Miscanthus as a biomass fuel for electric generation.	\$318,800	\$318,800
Ag. Utilization Research Institute	RD-69	9/8/08	complete	RD	2	Biomass	Conducted a feasibility study to couple bio-diesel and wind generation systems to "firm" wind power.	\$760,000	\$760,000
Project Resource Corp	AW-03	5/31/06	complete	EP	1	Wind	Installed 5.4 MW of wind energy with a new landowner investment model that limits development risk of community shareholders.	\$900,000	\$900,000
Pipestone Jasper School	AW-10	12/31/04	complete	EP	1	Wind	Installed a 900 kW wind turbine adjacent to the Pipestone-Jasper Public High School.	\$752,835	\$752,835
Crown Hydro	AH-01	9/1/18	Terminated	EP	1	Hydro	Install 3.2 MW of hydroelectric capacity on the Mississippi River in downtown Minneapolis.	\$5,100,000	\$1,538,591
Innovative Power Systems	EP4-11	4/12/18	complete	EP	4	Solar	Install 967 kW of solar capacity at four sites within the Innovative Energy Corridor.	\$1,850,000	\$1,850,000
Metropolitan Airports Commission	EP4-13	6/10/16	complete	EP	4	Solar	Installed a 1.471 MW fixed-tilt solar facility on the Blue parking ramp at Terminal One of MPS airport.	\$2,022,507	\$2,022,507
Minnesota Renewable Energy Society	EP4-15	6/30/21	current	EP	4	Solar	Install both a rural and urban solar garden totaling 1.0 MW of photovoltaic capacity to observe differences in subsciber interest.	\$2,661,320	\$511,229
Target Corporation	EP4-20	10/1/17	complete	EP	4	Solar	Install a 350 kW roof-mounted, fixed-tilt photovoltaic facility on the Target Superstore.	\$583,513	\$583,513
Minneapolis Park & Rec. Board	EP4-22	7/15/18	complete	EP	4	Solar	Install 200 kW of PV capacity at seven locations within the Minneapolis park system to demonstrate the effectiveness of alternative solar designs.	\$969,741	\$969,741
City of St. Paul	EP4-34	10/27/17	complete	EP	4	Solar	Install a 105 kW fixed-tilt photovoltaic facility at CHS Field.	\$555,750	\$555,750
Universisty of Minnesota (Gasification)	RD4-1	12/31/21	current	RD	4	Biomass	Development and fabrication of a gasification method based on microwave heating for distributed generation of electricity from biomass and at the site of biomass generation.	\$999,999	\$758,690
Universisty of Minnesota (Noise)	RD4-12	11/5/19	complete	RD	4	Wind	Research the sources and quality of wind turbine sound and the thresholds of potential health impacts on humans.	\$625,102	\$625,102
University of Minnesota (VWS)	RD4-13	6/2/20	complete	RD	4	Wind	Augment the predictive capabilities of the Virtual Wind Simulator by adding an aeroelastic model and integrating advanced turbine control algorithms.	\$1,391,684	\$1,391,684
Barr Engineering	RD4-14	3/4/19	complete	RD	4	Wind	Develop portable sensors to assess the health and life expectancy of wind turbine towers and foundations.	\$161,081	\$161,081
University of St. Thomas	HE4-2	12/12/19	complete	RD	4	Solar/Wind	Install a 0.25 MW peak, multi-purpose microgrid in Chisago City to establish an Engineering Senior Design Clinic for microgrid research and testing.	\$2,157,215	\$2,157,215
University of Minnesota (REMF)	HE4-3	2/20/20	complete	RD	4	All	Create Renewable Electricity for Minnesota's Future ("REMF") which will fund and support research in renewable electric energy generation.	\$3,000,000	\$3,000,000
Oak Leaf Energy	EP4-48	10/26/16	complete	EP	4	Solar	Installed a 1,000 kW fixed-tilt photovoltaic facility at the Blue Lake Wastewater Treatment Plant.	\$2,000,000	\$2,000,000
Merrick	EP3-2	12/22/08	complete	EP	3	Solar	Installed a roof-mounted 100 kW solar photovoltaic facility on a non-profit adult day training and habilitation center.	\$735,000	\$735,000
City of Minneapolis	EP3-11	1/15/13	complete	EP	3	Solar	Installed a 600 kW photovoltaic facility on the Minneapolis Convention Center.	\$2,000,000	\$2,000,000
freEner-g	EP3-12	2/17/11	complete	EP	3	Solar	Installed 280 kW photovoltaic capacity through a leasing and service package for residential and small businesses.	\$1,488,922	\$1,488,922

Aurora St. Anthony Limited , LLC	EP4-42	8/30/19	complete	EP	4	Solar	Development of a high-density solar energy system as part of redevelopment of Old Home Milk Dairy property. Aurora and primary project partner (St. Paul Housing Group) are proposing to construct and operate a roof-mounted solar energy project totaling 252 kilowatts using tenKsolar 410-watt panels.	\$239,994	\$239,994
University of Minnesota (Koda)	RD3-1	1/22/15	complete	RD	3	Biomass	Development of a production, pre-processing and delivery system for biomass feedstock's from prairie and grasslands.	\$992,989	\$976,743
SarTec Corporation	RD3-2	7/11/11	complete	RD	3	Biomass	Researched the growth of algae fed on CO2 from flue gas and extracted the algae oils for conversion into a marketable biodiesel product.	\$350,000	\$350,000
Bepex International	RD3-4	7/28/11	complete	RD	3	Biomass	Demonstrated torrefaction and densification as processes to reduce transportation and storage costs associated with biomass feedstock.	\$924,671	\$924,671
University of Minnesota (Nanocrystals)	RD3-25	12/26/11	complete	RD	3	Solar	Developed techniques for controlling microstructures of hydrogenated silicon and improving the grain size of microcrystalline silicon PV films.	\$732,032	\$732,032
University of Minnesota (Cropping)	RD3-28	9/22/13	complete	RD	3	Biomass	Developed guidelines for accurate management of biomass removal and maintenance of soil quality.	\$979,082	\$979,048
University of Minnesota (Wind)	RD3-42	8/7/13	complete	RD	3	Wind	Developed and tested a Virtual Wind Simulator to provide accurate wind turbulence predictions.	\$999,999	\$999,598
Lower St. Anthony Falls	EP-34	1/31/12	complete	EP	2	Hydro	Restored 9.176 MW hydroelectric generating capacity at the Lower St. Anthony Falls by using run-of-river technology.	\$2,000,000	\$2,000,000
University of Minnesota	RD-29	9/24/08	complete	RD	2	Biomass	Researched operation of turbo-generators using biomass-derived oils.	\$299,284	\$299,284
University of Minnesota	RD-56	4/16/08	complete	RD	2	Biomass	Developed model to evaluate options to optimize combustion and electricity generation in ethanol plants.	\$858,363	\$803,246
Windlogics	RD-57	11/11/08	complete	RD	2	Wind	Defined, designed, built and demonstrated a complete wind power forecasting system.	\$997,000	\$997,000
Center for Energy Environment	RD-94	10/12/07	complete	RD	2	Biomass	Developed two web-based programs for planning and development of biomass resources in Minnesota.	\$397,500	\$397,500
MN Dept. of Commerce	AS-05	9/1/08	complete	EP	1	Solar	Provided rebates of up to \$8,000 for small photovoltaic installations that are wired into the electrical grid.	\$1,150,000	\$1,150,000
Science Museum	AS-06	12/31/03	complete	EP	1	Solar	Installed a 9 kW solar roof to demonstrate a Zero Energy Building for the Minnesota Science Museum.	\$100,000	\$100,000
Sebesta Blomberg	BB-03	9/30/03	complete	RD	1	Biomass	Examined the feasibility of a gasification system using the byproducts of an ethanol facility to provide heat and power.	\$738,654	\$738,654
Energy Performance Systems	BB-06	12/15/02	complete	RD	1	Biomass	Conversion design of the NSP Granite Falls coal-fired facility to a biomass system capable of utilizing whole trees.	\$266,508	\$257,247
University of Minnesota	CW-06	12/31/06	complete	RD	1	Wind	Designed a flywheel battery system to enhance the ability to dispatch wind energy with inertial storage.	\$654,309	\$654,309
Minneapolis Public Schools	EP4-3	5/17/19	complete	EP	4	Solar	Install 485.78kW of photovoltaic capacity arrays using a combination of roof-mounted solar technologies at Edison High School	\$917,250	\$917,250
InterPhases Solar	RD4-7	2/28/21	current	RD	4	Solar	Development commerical production process of a thin-film technology by combining all the electrodeposition processes into a single manufacturing process.	\$1,000,000	\$726,263
Northern Plains Power Tech.	RD3-21	11/11/12	complete	RD	3	Solar	Developed a loss-of-mains detection based on harmonic signature and synchrophasor data.	\$493,608	\$493,608
InterPhases Solar	RD3-53	7/20/12	complete	RD	3	Solar	Demonstrated a manufacturing process to produce lightweight, thin-film solar cells.	\$1,000,000	\$1,000,000
University of North Dakota	RD3-71	3/23/12	complete	RD	3	Biomass	Demonstrated a thermally integrated biomass gasification systems with a 30 kW low-Btu gas turbine.	\$999,728	\$999,438
Energy Conversion Devices	RD-22	10/12/07	complete	RD	2	Biomass	Researched processes to reform bio-ethanol and bio-methanol into hydrogen for use in a fuel cell or gas turbine to generate electricity.	\$900,000	\$900,000
Coaltec	RD-26	1/12/07	complete	RD	2	Biomass	Studied handling, performance and emissions to assess feasibility of poultry waste as a sustainable feedstock for a fixed-bed gasifier.	\$450,000	\$450,000
Production Specialties	RD-72	11/16/09	complete	RD	2	Biomass	Investigated a technology to selectively remove hydrogen sulfide (H2S) from biogas without generating a waste stream.	\$228,735	\$228,735
Interphases Solar	RD-78	10/14/08	complete	RD	2	Solar	Developed a concept to manufacture flexible photovoltaic modules in a continuous roll-to-roll electro- deposition process.	\$1,000,000	\$1,000,000

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Biennium/Legislative Report
Attachment C, Page 4 of 4

NREL- Inkjet Solar Cells RD-93 RD-107 RD-107 RD-107 RD-107 RD-107 RD-108 RD-107 RD-107 RD-1098 RD-107 RD-107 RD-1098 RD-107 RD-1098 RD-107 RD-1098 RD-107 RD-10998 RD-107 RD-10998 RD-107 RD-10998 RD-107 RD-10998 RD-109 RD-10998 RD-10								TOTAL ALL PROJECTS	\$106,908,582	\$95,036,863
NREL - Inkjet Solar Cells RD-93 I1/11/08 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL-Low Band Gap-Solar RD-107 12/9/08 complete RD 2 Solar Overcome limitations in organic-based solar cells by developing low band gap (red light absorbing) \$1,000,000 \$1,000,000 S1,000,000 S1,000,000 NREL-Low Band Gap-Solar RD-110 7/12/07 complete RD 1 Biomass Performance testing of a particulate filtration clean-up system for the producer gas from a biomass gasifier. \$405,000 Weasured operational and component impacts of co-firing biomass with coal in an indirect fired combined-cycle pulverized-coal furnace. Community Power Corp. BB-10 3/24/05 complete RD 1 Biomass Designed, developed, and tested a centrifugal filter capable of removing sub micron particles and aerosols from a biomass co-fired utility boiler. Colorado School of Mines CB-07 12/31/07 complete RD 1 Biomass Developed a fuel cell prototype for use in ambient or high temperatures. \$1,116,742 University of ND - SOFC CB-08 10/31/07 complete RD 1 Biomass Developed a fuel cell prototype for use in ambient or high temperatures. \$1,116,742 NREL CS-05 7/9/07 complete RD 1 Biomass Developed a fuel cell s(SOFCs) and gasification into one integrated system to produce electricity. Poesign and developed a turbine's rotating flexible blades into a linear model for use in wind turbine \$3,000,000 1,000,000 S1,000,000 S1,000,00	rsity of Florida	RD4-5	3/23/21	current	RD	4			\$1,109,538	\$479,460
NREL - Inkjet Solar Cells RD-93 I1/11/08 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL-Low Band Gap-Solar RD-107 I2/9/08 RD-107 7/12/07 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL-Low Band Gap-Solar RD-107 7/12/07 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 \$1,000,000 NREL-Low Band Gap-Solar RD-107 7/12/07 complete RD 2 Biomass Performance testing of a particulate filtration clean-up system for the producer gas from a biomass gasifier. \$405,000 Measured operational and component impacts of co-firing biomass with coal in an indirect fired combined-cycle pulverized-coal furnace. Designed, developed, and tested a centrifugal filter capable of removing sub micron particles and aerosols from a bior producer bio-gas stream. University of ND - SCR Performance BB-12 6/30/06 complete RD 1 Biomass Examined the rates and mechanisms of catalyst deactivation within the emissions from a biomass co-fired utility boiler. Colorado School of Mines CB-07 12/31/07 complete RD 1 Biomass Developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 \$1,000,000 \$1,000,000 Measured operational and component impacts of co-firing biomass with coal in an indirect fired combined-cycle pulverized-coal furnace. Designed, developed, and tested a centrifugal filter capable of removing sub micron particles and aerosols from a biomass co-fired utility boiler. Solar Designed for the producer bio-gas stream. Examined the rates and mechanisms of catalyst deactivation within the emissions from a biomass co-fired utility boiler. Solar Design and develope for use in ambient or high temperatures. \$1,116,742 Incorporated solid oxide fuel cells (SOFCs) and gasification into one integrated s	l Energy Concepts	CW-02	10/1/03	complete	RD	1	Wind		\$75,000	\$73,239
NREL - Inkjet Solar Cells RD-93 RD-107 RD-1	,	CS-05	7/9/07	complete	RD	1	Solar	thin-film solar cells.	\$934,628	\$924,757
NREL - Inkjet Solar Cells RD-93 RD-107 RD-10	rsity of ND - SOFC	CB-08	10/31/07	complete	RD	1	Biomass	electricity.	\$1,250,142	\$1,250,142
NREL - Inkjet Solar Cells RD-93 11/11/08 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL-Low Band Gap-Solar RD-107 12/9/08 complete RD 2 Solar Overcome limitations in organic-based solar cells by developing low band gap (red light absorbing) \$1,000,000 S1,000,000 Townstate University RD-110 7/12/07 complete RD 2 Biomass Performance testing of a particulate filtration clean-up system for the producer gas from a biomass gasifier. \$405,000 University of ND - Cofiring BB-09 3/31/05 complete RD 1 Biomass Designed, developed, and tested a centrifugal filter capable of removing sub micron particles and aerosols from a hot producer bio-gas stream. Examined the rates and mechanisms of catalyst deactivation within the emissions from a biomass co-fired \$60,000	ndo School of Mines	CB-07	12/31/07	complete	RD	1	Biomass	Developed a fuel cell prototype for use in ambient or high temperatures.	\$1,116,742	\$1,116,742
NREL - Inkjet Solar Cells RD-93 11/11/08 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL-Low Band Gap-Solar RD-107 12/9/08 complete RD 2 Solar Overcome limitations in organic-based solar cells by developing low band gap (red light absorbing) \$1,000,000 Solar Indicated the producer gas from a biomass gasifier. \$405,000 University of ND - Coffiring BB-09 3/31/05 Somplete RD 1 Biomass Measured operational and component impacts of co-firing biomass with coal in an indirect fired combined-cycle pulverized-coal furnace. Designed, developed, and tested a centrifugal filter capable of removing sub micron particles and aerosols \$638,635	rsity of ND - SCR Performance	BB-12	6/30/06	complete	RD	1	Biomass	·	\$60,000	\$59,973
NREL - Inkjet Solar Cells RD-93 11/11/08 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL-Low Band Gap-Solar RD-107 12/9/08 complete RD 2 Solar Overcome limitations in organic-based solar cells by developing low band gap (red light absorbing) \$1,000,000 \$1,000,000 Inversity of ND - Coffring RB-09 3/31/05 complete RD 1 RD 1 Riomass Measured operational and component impacts of co-firing biomass with coal in an indirect fired combined- \$444.478	nunity Power Corp.	BB-10	3/24/05	complete	RD	1	Biomass		\$638,635	\$548,692
NREL - Inkjet Solar Cells RD-93 11/11/08 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL-Low Band Gap-Solar RD-107 12/9/08 complete RD 2 Solar Overcome limitations in organic-based solar cells by developing low band gap (red light absorbing) \$1,000,000 \$1,000,000	rsity of ND - Cofiring	BB-09	3/31/05	complete	RD	1	Biomass		\$444,478	\$444,443
NREL - Inkjet Solar Cells RD-93 11/11/08 complete RD 2 Solar Designed and developed a thin-film solar cell that will use a direct-write inkjet printing process. \$1,000,000 NREL - Low Band Gap-Solar RD-107 12/9/08 complete RD 2 Solar Overcome limitations in organic-based solar cells by developing low band gap (red light absorbing) \$1,000,000 \$1,000,000	State University	RD-110	7/12/07	complete	RD	2	Biomass	Performance testing of a particulate filtration clean-up system for the producer gas from a biomass gasifier.	\$405,000	\$98,343
	-Low Band Gap-Solar	RD-107	12/9/08	complete	RD	2	Solar		\$1,000,000	\$944,452
	- Inkjet Solar Cells	RD-93	11/11/08	complete	RD	2	Solar		\$1,000,000	\$949,005
Global Energy Concepts RD-87 5/7/09 complete RD 2 Wind Analyzed and developed advanced methods for reducing uncertainty in wind power estimates. \$370,000	l Energy Concepts	RD-87	5/7/09	complete	RD	2	Wind	Analyzed and developed advanced methods for reducing uncertainty in wind power estimates.	\$370,000	\$370,000

CERTIFICATE OF SERVICE

- I, Paget Pengelly, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.
 - <u>xx</u> by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota
 - xx electronic filing

Docket Nos. E002/M-00-1583 (Official Service List)

E002/M-03-1883 (Official Service List) E002/M-07-675 (Official Service List) E002/M-12-1278 (Official Service List)

Dated this 16th day of February 2021

/s/

Paget Pengelly Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steven J.	Almos	salmos.wn@bsm.com	Bay State Milling Company	55 Franklin Street Winona, MN 55987	Paper Service	No	OFF_SL_0-1583_1
Janet	Anderson	jainstp@q.com	-	1799 Sargent St. Paul, MN 55105	Electronic Service	No	OFF_SL_0-1583_1
John	Bailey	bailey@ilsr.org	Institute For Local Self-Reliance	1313 5th St SE Ste 303 Minneapolis, MN 55414	Electronic Service	No	OFF_SL_0-1583_1
Edna C	Brazaitis	ednab@mac.com	Friends of the Riverfront	PO Box 580545 Minneapolis, Minnesota 55458-0545	Electronic Service	No	OFF_SL_0-1583_1
Michael J.	Bull	mbull@mncee.org	Center for Energy and Environment	212 Third Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_0-1583_1
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.st ate.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_0-1583_1
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Electronic Service	No	OFF_SL_0-1583_1
Lisa	Daniels	lisadaniels@windustry.org	Windustry	201 Ridgewood Ave Minneapolis, MN 55403	Electronic Service	No	OFF_SL_0-1583_1
Executive	Director	N/A	Onanegozie RC&D	42290 Ginger Ave. Harris, MN 55032-3361	Paper Service	No	OFF_SL_0-1583_1
John R.	Dunlop, P.E.	JDunlop@RESMinn.com	Renewable Energy Services	Suite 300 448 Morgan Ave. S. Minneapolis, MN 554052030	Electronic Service	No	OFF_SL_0-1583_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	Yes	OFF_SL_0-1583_1
Doug	Fredrickson			400 County Road 50 Avon, MN 56310	Paper Service	No	OFF_SL_0-1583_1
Gary	Gillet		University Of Minnesota	Suite 450 200 Oak Street SE Minneapolis, MN 554552070	Paper Service	No	OFF_SL_0-1583_1
Andy	Herring		Colorado School Of Mines	1500 Illinois Street Golden, CO 80401	Paper Service	No	OFF_SL_0-1583_1
KDV c/o Mary	Hoffman	mhoffman@kdv.com	Crown Hydro LLC	3800 American Blvd W Suite 1000 Bloomington, MN 55431-4420	Electronic Service	No	OFF_SL_0-1583_1
Jerry	Horgan		Pipestone-Jasper Public Sch Dist #2689	1401 Seventh Street SW Pipestone, MN 561641877	Paper Service	No	OFF_SL_0-1583_1
Cindy	Jepsen	ccjepsen@capitolresource mn.com	Capitol Resources	Box 254 Marine On St. Croix, MN 55047	Electronic Service	No	OFF_SL_0-1583_1
John	Johnson		Stewart Energy Products	22739 Highway 212 E. P.O. Box 219 Stewart, MN 55385	Paper Service	No	OFF_SL_0-1583_1
Michael	Loeffler	mike.loeffler@nngco.com	Northern Natural Gas Co.	CORP HQ, 714 1111 So. 103rd Street Omaha, NE 681241000	Electronic Service	No	OFF_SL_0-1583_1
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	OFF_SL_0-1583_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Richard	Mattocks		Environomics	2517 Rte. 44, 11-221 Salt Point, NY 12578	Paper Service	No	OFF_SL_0-1583_1
Clark	McDonald			504 - 20Th Street North Benson, MN 56215	Paper Service	No	OFF_SL_0-1583_1
David	Planting		Archer Daniels Midland	400 West Erie Rd. Marshall, MN 56258	Paper Service	No	OFF_SL_0-1583_1
Generic Notice	Residential Utilities Division	residential.utilities@ag.stat e.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_0-1583_1
Richard	Savelkoul	rsavelkoul@martinsquires.c om	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_0-1583_1
Dean	Sedgwick	Sedgwick@Itascapower.co	Itasca Power Company	PO Box 455 Spring Lake, MN 56680	Electronic Service	No	OFF_SL_0-1583_1
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_0-1583_1
Lynnette	Sweet	Regulatory.records@xcele nergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_0-1583_1
Scott	Vreeland		Seward Neighborhood Group	2437 - 33Rd Avenue South Minneapolis, MN 55406	Paper Service	No	OFF_SL_0-1583_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Heather	Westra	hwestra@piic.org	Prairie Island Indian Community	5636 Sturgeon Lake Rd Welch, MN 55089	Electronic Service	No	OFF_SL_0-1583_1
Paul	White	paul.white@prcwind.com	Project Resources Corp./Tamarac Line LLC/Ridgewind	618 2nd Ave SE Minneapolis, MN 55414	Electronic Service	No	OFF_SL_0-1583_1
Robyn	Woeste	robynwoeste@alliantenerg y.com	Interstate Power and Light Company	200 First St SE Cedar Rapids, IA 52401	Electronic Service	No	OFF_SL_0-1583_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steven J.	Almos	salmos.wn@bsm.com	Bay State Milling Company	55 Franklin Street Winona, MN 55987	Paper Service	No	OFF_SL_03-1883_1
James J.	Bertrand	james.bertrand@stinson.co m	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_03-1883_1
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.st ate.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_03-1883_1
Brooke	Cooper	bcooper@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	OFF_SL_03-1883_1
John R.	Dunlop, P.E.	JDunlop@RESMinn.com	Renewable Energy Services	Suite 300 448 Morgan Ave. S. Minneapolis, MN 554052030	Electronic Service	No	OFF_SL_03-1883_1
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	Yes	OFF_SL_03-1883_1
Gary	Gillet		University Of Minnesota	Suite 450 200 Oak Street SE Minneapolis, MN 554552070	Paper Service	No	OFF_SL_03-1883_1
Cindy	Jepsen	ccjepsen@capitolresource mn.com	Capitol Resources	Box 254 Marine On St. Croix, MN 55047	Electronic Service	No	OFF_SL_03-1883_1
John	Johnson		Stewart Energy Products	22739 Highway 212 E. P.O. Box 219 Stewart, MN 55385	Paper Service	No	OFF_SL_03-1883_1
Renee	Landwehr	N/A	Clean Power Markets, Inc.	303 Monroe St Little Chute, WI 54140-1722	Paper Service	No	OFF_SL_03-1883_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Patrick	Mulloy		Mulloy Environmental Services, Inc.	3636 Garfield Ave. S. Minneapolis, MN 55409	Paper Service	No	OFF_SL_03-1883_1
Rolf	Nordstrom	rnordstrom@gpisd.net	Great Plains Institute	2801 21ST AVE S STE 220 Minneapolis, MN 55407-1229	Electronic Service	No	OFF_SL_03-1883_1
Generic Notice	Residential Utilities Division	residential.utilities@ag.stat e.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_03-1883_1
Richard	Savelkoul	rsavelkoul@martinsquires.c om	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_03-1883_1
Keith A.	Schimel	cengr@bci.net	Technology Matrix Corporation	P.O. Box 11236 Syracuse, NY 13218	Paper Service	No	OFF_SL_03-1883_1
Dean	Sedgwick	Sedgwick@Itascapower.co m	Itasca Power Company	PO Box 455 Spring Lake, MN 56680	Electronic Service	No	OFF_SL_03-1883_1
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_03-1883_1
Byron E.	Starns	byron.starns@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_03-1883_1
Lynnette	Sweet	Regulatory.records@xcele nergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_03-1883_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Heather	Westra		Prairie Island Indian Community	5636 Sturgeon Lake Rd Welch, MN 55089	Electronic Service	No	OFF_SL_03-1883_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.st ate.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400	Electronic Service	No	OFF_SL_07-765_1
				St. Paul, MN 55101			
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	Yes	OFF_SL_07-765_1
Douglas	Larson	dlarson@dakotaelectric.co m	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_07-765_1
Generic Notice	Residential Utilities Division	residential.utilities@ag.stat e.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	No	OFF_SL_07-765_1
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_07-765_1

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mara	Ascheman	mara.k.ascheman@xcelen ergy.com	Xcel Energy	414 Nicollet Mall FI 5 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_12-1278_Official
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.st ate.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_12-1278_Official
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_12-1278_Official
Cheryal Lee	Hills	chills@regionfive.org	Region Five Development Commission	200 First Street NE Suite 2 Staples, MN 56479	Electronic Service	No	OFF_SL_12-1278_Official
Kevin	McKoskey	awards@umn.edu	Regents of the University of MN	450 McNamara 200 Oak Street SE Minneapolis, MN 55455	Electronic Service	No	OFF_SL_12-1278_Official
Thomas	Melone	Thomas.Melone@AllcoUS.com	Minnesota Go Solar LLC	222 South 9th Street Suite 1600 Minneapolis, Minnesota 55120	Electronic Service	No	OFF_SL_12-1278_Official
Robert	Messerich	b.messerich@gmail.com	Dragonfly Solar, LLC	10583 202nd St West Lakeville, MN 55044	Electronic Service	No	OFF_SL_12-1278_Official
Brian	Millberg	brian.millberg@minneapoli smn.gov	City of Minneapolis	661 5th Avenue North Minneapolis, Minnesota 55405	Electronic Service	No	OFF_SL_12-1278_Official
Alan	Muller	alan@greendel.org	Energy & Environmental Consulting	1110 West Avenue Red Wing, MN 55066	Electronic Service	No	OFF_SL_12-1278_Official
Generic Notice	Residential Utilities Division	residential.utilities@ag.stat e.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_12-1278_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_12-1278_Official
David	Shaffer	shaff081@gmail.com	Minnesota Solar Energy Industries Project	1005 Fairmount Ave Saint Paul, MN 55105	Electronic Service	No	OFF_SL_12-1278_Official
Bria	Shea	bria.e.shea@xcelenergy.co m	Xcel Energy	414 Nicollet Mall Minneapolis, MN 55401	Electronic Service	No	OFF_SL_12-1278_Official
Lynnette	Sweet	Regulatory.records@xcele nergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_12-1278_Official
Dr. Don	Weinkauf	dhweinkauf@stthomas.edu	University of St. Thomas	Mail OSS 101 2115 Summit Ave St. Paul, MN 55105-1079	Electronic Service	No	OFF_SL_12-1278_Official