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Xcel Energy®

414 Nicollet Mall Minneapolis, MN 55401

February 15, 2016

-Via U.S. Mail-

Minnesota Senate 75 & 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155

Minnesota House of Representatives 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155

(See attached service list for members served.)

RE: ANNUAL REPORT TO MINNESOTA STATE LEGISLATURE RENEWABLE DEVELOPMENT FUND

Dear Senators and Representatives:

Pursuant to the Minn. Stat. § 116C.779, enclosed is our Renewable Development Fund Annual Report. This report itemizes actual and projected financial benefit to Xcel Energy's electric ratepayers for each project that has received an RDF project grant administered by Xcel Energy.

If you have any questions regarding this filing please contact me at (612) 215-5367 or amy.s.fredregill@xcelenergy.com

Sincerely,

/s/

Amy s. Fredregill Manager Resource Planning and Strategy

Enclosures

Xcel Energy Renewable Development Fund (RDF)



Annual Report to the Minnesota State Legislature

February 15, 2016

Introduction and 2015 Highlights

- This report summarizes projects and programs that support progress towards the mission of the Renewable Development Fund (RDF) – to increase renewable energy market penetration, assist renewable energy projects and companies, and support emerging renewable energy technology. Over the past year, RDF activity included the following accomplishments:
 - \$20.6 million was spent on incentives for wind, hydro, biomass, and solar renewable energy generation.
 - Construction activity occurred on seven solar projects totaling 5.4 MW capacity. These solar facilities each have unique features that either showcase renewables such as the arrays at CHS Field in downtown Saint Paul (see Photo 1) and at Minneapolis St Paul International Airport or facilities that demonstrate a best use of land with limited development potential such as solar installations on a closed landfill in the City of Hutchinson (see Photo 2) or adjacent the Blue Lake Wastewater Treatment facility in Shakopee.
 - A new facility on the School Sisters of Notre Dame campus in Mankato was the first large-scale solar facility to utilize a new, higher voltage operating system that can reduce installation and maintenance costs.
 - Projects funded from the RDF resulted in \$13 million in economic activity, involving construction and research, within Minnesota during the past year.



Photo 1: 103.5 kW_{DC} array behind left field at CHS Field in St. Paul



Photo 2: 400 kW_{DC} array on a closed municipal landfill in Hutchinson

Background

The RDF was authorized by the Minnesota Legislature in 1994 as a condition of storing spent nuclear fuel in dry casks at Prairie Island. In 2007, the statute was further amended to add an assessment for dry casks stored at our Monticello nuclear generating plant in Monticello, Minnesota. The initial annual obligation in 1999 to the RDF was \$4.5 million, increasing over the past 17 years to \$25.6 million in 2015. A cumulative total of \$276.1 million has been set-aside in the RDF. Figure 1 below shows the increase in annual funding for the RDF since 1999.





According to the RDF statute (Minn. Stat. §116C.779), the RDF is a program administered by Xcel Energy with oversight by the Minnesota Public Utilities Commission. The RDF's mission was established in an October 5, 2006 Commission

Order and was revised to incorporate statutory requirements from the 2012 legislature. The current RDF mission statement directs that the overall purpose of the fund is to:

- Increase the market penetration of renewable electric energy resources at reasonable costs in the state;
- Promote the start-up, expansion and attraction of renewable electric energy projects and companies in the state;
- Stimulate renewable electric energy research and development in the state;
- Develop demonstration scale renewable electric energy projects of near-commercial renewable electric generation or near-commercial electric infrastructure delivery technology that enhance the delivery of renewable electric energy within the state; and
- Provide benefits to Minnesota citizens, businesses and Xcel Energy's electric ratepayers.

The RDF statute also states that Xcel Energy must submit an annual report to the chair and ranking minority member of the Minnesota legislative committees with jurisdiction over energy policy about projects funded by the RDF account. The report is to itemize the actual and projected financial benefit to Xcel Energy's electric ratepayers of each project. Attachment A includes a complete list of projects that have received RDF grant awards and the associated benefits.

A seven-member advisory group, representing the interests of various stakeholder perspectives, assists Xcel Energy in evaluating and recommending grant project proposals to Xcel Energy and the Commission. Further details on the members of the advisory group can be found in Attachment B.

The RDF program expenses allocated to Minnesota are recovered through an adjustable surcharge on our customer bill statements as part of their monthly charges for electricity. In 2016 the RDF charge is \$0.000902 per kWh. For a typical residential customer using 750 kWh per month, the RDF cost per month is \$0.68.

RDF Grant Program Summary

Since its inception, the RDF program has provided \$276.1 million for renewable energy initiatives including \$87.8 million for Renewable Energy Production Incentive (REPI) payments, \$84.5 million for legislatively-mandated projects and programs, and \$2.3 million for general program support. The legislatively-mandated programs included the appropriation of \$25 million to the University of Minnesota for the Initiative for Renewable Energy and Environment (IREE). The balance of \$101.5

million has been awarded over four grant cycles to 90 projects. Attachment C to this report is a Financial Statement which summarizes the RDF cost distribution since 2001. Figure 2 below illustrates the distribution of RDF costs between these programs and grants.



Figure 2: Distribution of RDF Costs

As Table 1 below shows, 62 projects have been completed since the RDF's inception and seventeen are currently active, including fifteen new Cycle 4 projects. Eleven Cycle 4 grants which were awarded RDF grants have not executed grant contracts and therefore project activity has not begun.

Туре	Completed	Active as of December 31, 2015	Total
Energy Production	19	10	29
Research	43	7	50
Total	62	17	79

Table 1: Summary	of RDF	Project	Status
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Legislative RDF Program Summary

In 2003, legislation was passed to create the REPI program to provide production incentives for electricity generated by wind, biogas, and hydro. In 2015, \$4.7 million in RDF funds were disbursed for REPI payments.

Legislation in 2010 created the Solar*Rewards program to provide rebates to owners of qualified properties for installing solar photovoltaic modules. In 2015, \$4 million in RDF funds were disbursed for Solar*Rewards rebates.

Two new programs were created as a result of 2013 legislation to receive funds from the RDF. The first program is a "Made in Minnesota" solar energy production incentive account to provide production incentives for residential and commercial installations. In 2015, \$12 million in RDF funds were disbursed to fund this account. The second program created in 2013 is a solar energy incentive program to replace the original Solar*Rewards program and focus on small facilities of up to 20 kW. In 2015, \$40,000 in RDF funds were disbursed to fund the new Solar*Rewards program.

RDF Project Benefits

The many benefits of RDF projects can be seen at both the local and regional level through the purchase of goods and services, as well as the expansion of employment opportunities. Other benefits associated with the RDF include the fostering of new or expanded business opportunities to maintain and support the new facilities or research. In cases where permanent energy production facilities are constructed, RDF investments can also expand the property tax base for a community.

Energy Production:

RDF projects that construct electric generation facilities provide a combination of environmental and economic benefits. As shown in Table 2, the eighteen completed electric production projects that received RDF grants have resulted in the installation of 26.8 MW of renewable energy nameplate capacity and have overall generated a total of 405 GWh of energy over the life of the facilities.

Туре	Investment	Facilities	Installed Capacity (MW)	2015 Energy Production (MWh)	Total Energy Production (MWh)
Biomass	\$27,887,976	1	0.30	906	1,733
Hydro	\$44,145,119	1	9.18	37,680	151,063
Solar	\$27,075,846	12	7.37	5,866	28,815
Wind	\$13,075,483	4	9.95	20,264	223,478
Total	\$112,184,424	18	26.8	64,716	405,089

 Table 2: RDF Electric Production Projects Summary

For every construction dollar spent from the RDF, there has been an additional \$2.86 spent from outside investors. Therefore, the \$31.7 million investment of RDF funds for energy production has leveraged an additional \$90.8 million. This total investment has resulted in the creation of approximately 1,309¹ construction jobs to design and build facilities in Minnesota.

As shown in Table 3 below, the environmental benefits from these RDF facilities are recognized in marketable Renewable Energy Credits (RECs) from qualifying facilities, an estimated 284² tons in carbon dioxide emissions reduction, avoided costs to build conventional facilities, and avoided replacement costs for electricity generated.

Table 3: Cumulative RDP Project Environmental Benefits

Value of	Value Emission	Avoided	Avoided	Total Value
RECs	Reductions ³	Capacity Value	Energy Value	
\$312,072	\$1,113	\$5,670,077	\$11,633,323	\$17,616,585

Research and Development:

The RDF has provided a boost in the development of new renewable electric energy concepts and designs through the investment in renewable energy research and development. Research and development projects typically do not have as easily-quantifiable direct benefits or extensive capacity for leveraging benefits that energy production projects do because the funding is predominately applied to personnel rather than construction and material costs.

Nevertheless, economic models estimate that this total investment has resulted in the need for over 500⁴ research- related jobs. Some of these jobs were within the non-profit and commercial industry that received funding for demonstration-style

¹ Source: National Renewable Energy Laboratory Jobs and Economic Development Impact Model ² Carbon emissions reduction assumptions are based on the energy generation from RDF projects (in MWh), multiplied by the Upper Midwest Emissions Rates (in lbs/MWh) reported in our most recent 2014 Corporate Responsibility Report. Our methodology for calculating that rate is based on the U.S. Environmental Protection Agency greenhouse gas emissions reporting protocol, and is verified by The Climate Registry.. ³ The value of emissions reductions is based upon current values provided by the Minnesota Public Utilities Commission on the costs of certain types of emissions: SO₂, CO₂, NO_X and Pb, provided in its May 27, 2015 Notice of Updated Environmental Externality Values. The Company used the average of the high and low value for urban customers as a proxy of Xcel Energy's largely urban Minnesota electric service territory. ⁴ Source: National Renewable Energy Laboratory Jobs and Economic Development Impact Model

research, and many other jobs were created for students in the academic world. This serves as an investment in the next generation that will design new renewable electric energy facilities. As can be seen in Table 4, research and development projects contributed to the development of articles, workshops, and patent applications. In addition, research and development RDF grant dollars leveraged \$0.49 for each grant dollar invested.

Technology	Total Investment	Published Articles	Presentations/ Workshops	Patent Applications
Biomass	\$29,844,964	24	59	3
Solar	\$7,772,240	8	21	0
Wind	\$8,093,471	12	49	2
University Research	\$1,000,000	0	0	0
Total	\$46,710,675	44	129	5

Table 4: RDF Research and Development Projects Results

Conclusion

Xcel Energy appreciates this opportunity to provide this report summarizing the projects and programs funded by the RDF through 2015. The RDF program continues to be a source of funding for renewable electric energy research, development, and demonstration projects in Minnesota. Over the past ten years and four grant award cycles, the RDF program has supported projects of state, regional and national significance. We look forward to working with the Minnesota Legislature and the Minnesota Public Utilities Commission to continue to improve the RDF program moving forward. Further, we remain committed to making certain the RDF program provides maximum benefits for those individuals who most directly make it possible—our electric customers.

Rep. Tim Mahoney 345 State Office Building St. Paul, MN 55155

Rep. Pat Garofalo 485 State Office Building St. Paul, MN 55155 Sen. John Marty 3233 MN Senate Building St. Paul, MN 55155

Sen. David Osmek 19 State Office Building St. Paul, MN 55155

Sen. David J. Tomassoni 3401 MN Senate Building St. Paul, MN 55155

Sen. Bill Ingebrigtsen 143 State Office Building St. Paul, MN 55155 Jess Hopeman Legislative Reference Library 645 State Office Bldg. St. Paul, MN 55155

SUMMARY OF ALL RDF PROJECTS (1/1/2002 to present)

		Project Site						Tuela Basauma Diviset Description DDE Auto			Fund	ling		J	obs Powe	r Develoj	pment R	EC's		Externalities		Intel	lectual Proper	rty	
Project Name	Contract	City	Zone	Project End Date	Status	Туре	Cycle	Resource	Project Description	RDF Award	Grant Funds Disbursed	Leverage Funds	Total Costs C	Current Grant 1 Balance	Deobligated Funds	Capac (kW	ity Gene) (M	eration IWh)	F	Enviro	Avoided Capacity	Avoided Energy	Articles P	resentations	Patent Apps
CENTRAL REGION																									
Bergey Windpower Company	EP4-24	St. Cloud area	Central	11/24/17	current	EP	4	Solar	Install 500 kW small wind capacity in the jurisdictions of Stearns, Benton, and Meeker counties by constructing 50 distributed 10 kW microturbines.	\$1,106,600	\$0	\$2,085,145	\$2,085,145	\$1,106,600	\$0	1									
City of Hutchinson	EP4-41	Hutchinson	Central	6/19/16	current	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	\$0	\$784,120	\$784,120	\$958,369	\$0	9 4	.00	16		\$0	\$17,931	\$460			
University of Minnesota (Dairy)	RD4-2	Morris	Central	6/2/18	current	RD	4	Solar/Wine	1 Model a "net-zero" energy dairy parlor at the West Central Research and Outreach Center by integratingral 20 kW wind and 54 kW solar with storage	\$982,408	\$0	\$0	\$0	\$982,408	\$0	0									
Best Power Int'l (St. John's Expansion)	EP4-6	Collegeville	Central	3/16/15	complete	EP	4	Solar	Installed a 182 kW photokic fixed-tilt array at St. John's solar farm for a side-by- ide semanary with the wische constant and the bine solar farm for a side-by-	\$172,213	\$172,213	\$363,613	\$535,826	\$0	\$0	6	82	254	\$233	\$1	\$8,151	\$7,429			
Best Power Int'l (St. John's)	EP3-3	Collegeville	Central	5/8/10	complete	EP	3	Solar	Installed a 400 kW photostaic facility at St. John's University to demonstrate	\$1,994,480	\$1,994,480	\$1,188,823	\$3,183,303	\$0	\$0	35 4	100	3,499	\$2,708	\$10	\$71,741	\$102,972			
University of Minnesota	RD3-23	Morris	Central	8/1/11	complete	RD	3	Biomass	Evaluated economic and technical issues related to biomass fuel and integrated	\$819,159	\$729.717	\$0	\$729.717	\$0	\$89.442	8							6	28	
University of North Dakota (Digester)	RD3-68	Princeton	Central	4/30/12	complete	RD	3	Biomass	gastification combined cycle technology. Field demonstration of a hydrogen sulfide reduction process at the anaerobic digester	\$970,558	\$970.480	\$0	\$970.480	\$0	\$78	11								1	
Minnesota Valley Alfalfa Producers	RD3-69	Priam	Central	7/15/15	complete	RD	3	Biomass	on the 1,000-acre Haubenschild Dary Farm. Researching application of kinetic disintegration technology to produce biomass	\$1,000,000	\$825.489	\$286.499	\$1 111 988	\$0	\$174 511	12									
Energy Performance Systems	RD-50	Graceville	Central	2/19/13	complete	RD	2	Biomass	pellets from feedstocks with varying levels of moisture. Built and demonstrated equipment for an integrated system to supply farm grown	\$957,929	\$057.020	\$1,997,606	\$2,055,535	\$0	\$0	32								1	
Blattner and Sons	BW-06	Avon	Central	12/15/02	complete	RD	1	Wind	trees as a biomass feedstock to a power plant. Developed a platform that would climb the tower to eliminate that need for crane to	\$68,470	\$751,727	\$1,797,000	\$2,755,555	\$0 66 104	\$0 66 104	1									
					Ŷ				construct very tall wind turbines. Economic Benefits for West Central Region	\$9.030.186	\$62,346	\$6,705,806	\$02,340	\$5,124	\$0,124	13 9	981	3.768	\$2.941	\$10	\$97.823	\$110.862	6	30	0
													,,,					-,		+		+,	-		-
NORTH REGION University of Minnesota (Torrefaction)	RD4-11	Coleraine	North	9/3/2017	current	RD	4	Biomass	Demonstrate a prototypic torrefaction bioconversion process and distributed electric	\$1,800,400	\$0	\$116.002	\$446.002	\$1,800,400	\$0	5									
West Central Telephone Assoc.	RD3-58	Menahga	North	5/12/10	complete	RD	3	Wind/Sola	generation. r Designed and tested configurations and specifications of a hybrid wind/solar power	\$1,077,477	\$127.000	\$440,003	\$440,005	\$1,077,477	30	3									
University of North Dakota (Liguifaction)	RD3-66	Duluth	North	4/10/12	complete	RD	3	Biomass	system for distributed generation in remote locations. Designed and demonstrated a mobile biomass liquefaction system that can utilize	\$137,000	\$137,000	\$90,920	\$233,926	\$0	\$0	22								1	
Mesaba/Excelsior Energy	EP-43	Taconite	North	6/24/10	complete	FP	2	Innovative	high moisture wood waste. To design the basis of a base load Integrated Gasification Combined-Cycle (IGCC)	\$999,065	\$998,697	\$995,800	\$1,994,497	\$0	\$368	13									
CMEC	EP 44	Little Falls	North	3/12/11	complete	ED	2	Biomass	power generation facility. Designed 950-kW gesification plant to utilized distillers grains and local biomass	\$10,000,000	\$10,000,000	\$365,621	\$10,365,621	\$0	\$0	83									
	DD 24	Entite 1 ans	North	5/12/11	compiete	DD	2	Diomass	Refractory issues prevented completion of the facility.	\$2,000,000	\$400,000	\$16,462,472	\$16,862,472	\$0	\$1,600,000								2		
University of Fiorida	KD-34	Moornead	North	5/16/09	complete	KD	2	Biomass	MN to generate methane for conversion to electricity.	\$999,995	\$996,875	\$0	\$996,875	\$0	\$3,120	11							3	1	1
Gas Technology Institute	RD-38	Coleraine	North	10/12/07	complete	RD	2	Biomass	Developed a method to extract hydrogen from biomass gasification using membrane separation technologies.	\$861,860	\$861,860	\$3,121	\$864,981	\$0	\$0	9								I	
									Economic Benefits for Northeast Region	\$16,897,419	\$13,394,432	\$18,369,943	\$31,764,375	\$1,899,499	\$1,603,488	45	0	0	\$0	\$ 0	\$0	\$0	3	3	1
STATEWIDE	ED2 12	Aften Et Spalling	Statawida	2/12/12	aamnlata	ED	2	Solar	Installed 114 kW of color photocoltaic constation at various state parks and							10	14	552	\$508	ເລ	\$12.027	\$16.151			
	15-15	Lake Shetek. Lac qui	Statewide	5/12/15	compiete	Li	5	30141	developed a renewable energy strategy for future DNR facilities.	\$894,000	\$878,966	\$39,312	\$918,278	\$0	\$15,034	10	14	555	\$508	\$2	\$12,037	\$10,151			
									Economic Benefits for Statewide Projects	\$894,000	\$878,900	\$39,312	\$918,278	Ş U	\$15,054	10 1	14	555	3 208	\$2	\$12,037	\$10,151	U	0	U
SOUTHEAST REGION Coaltec Energy USA	RD3 - 77	Northfield	Southeast	4/22/16	current	RD	3	Biomass	Demonstrated the feasibility of biomass gasification on a commercial turkey farm to		*****					12									
Diamond K	EP-51	Altura	Southeast	5/18/14	complete	FP	2	Riomass	generate electricity and heat. Installed a 300 kW of biomass generated and anaerobic digester at the Diamond K	\$1,000,000	\$850,000	\$2/4,511	\$1,124,511	\$150,000	\$0	30 3	300	1 733	\$1 732	\$5	\$6.650	\$44 396		_	
AnAerobics Inc	AB 07	Montgomery	Southeast	6/3/03	complete	EP	-	Biomass	Dairy in Winona County, Minnesota. Was to install a 1.7 MW geneet and study removal of hydrogen sulfide created	\$936,530	\$936,530	\$2,688,974	\$3,625,504	\$0	\$0	80	00	1,755	φ1,7 <i>52</i>	φ5	\$0,050	<i>ф</i> +4,570			
AllActobes, like	AB-07	wongomery	Southeast	0/5/05	compiete	Li	1	Diomass	during anaerobic digestion but had site control issues.	\$1,300,000	\$1,100,000	\$6,300,000	\$7,400,000	\$0	\$200,000	22	200	1 522	¢1 533	¢.5	\$4.450	¢44.207			
									Economic benefits for Southeast Region	\$3,230,530	\$2,000,530	\$9,203,485	\$12,150,015	\$150,000	\$200,000	32	00	1,/35	\$1,752	30	\$0,050	\$44,390	U	0	U
SOUTHWEST REGION Best Power Int'l (School Sisters)	EP4-5	Mankato	Southwest	10/28/15	complete	EP	4	Solar	Installed a 849 kW solar facility at the Mankato campus of the Central Pacific	6000.000	¢000.000	6.001.001	¢1 501 001	6 0	<u></u>	17 8	349	192		\$1	\$89.657	\$5.613			
Outland Renewable Energy	EP3-10	Slavton	Southwest	4/1/13	complete	FP	3	Solar	Province of the School Sisters of Notre Dame. Installed 2 MW photovoltaic facility near Slavton. MN to demonstrate the benefits of	\$900,000	\$900,000	\$681,901	\$1,581,901	\$0	\$0	76 2 (000	7 549	\$7 311	\$21	\$89.712	\$220,702			
Xcel Energy	RD3-12	Beaver Creek	Southwest	12/19/11	complete	RD	3	Wind	utility scale use of photovoltaics in Minnesota. Installed a 1.0 MW sodium sulfur battery adjacent a wind farm to validate the value	\$1,000,000	\$2,000,000	\$4,972,605	\$6,972,605	\$0	\$0	16		1,515	<i><i><i>ψ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i>,<i>σ</i></i></i>	<i>421</i>	000,012	\$220,702		31	
Hilton	ED 26	Edgarton	Southwest	2/2/00	complete	ED	2	Wind	of energy storage for greater wind energy energition.	\$1,000,000	\$1,000,000	\$3,247,181	\$4,247,181	\$0	\$0	40 20	100	25 517 \$	17.016	\$60	\$02.162	\$701 220		51	
filmop	EF-20	Eugenon	Southwest	J/2/09	complete	EP	2	wind	of the electricity sold to Xeel Energy.	\$1,200,000	\$1,200,000	\$2,670,126	\$3,870,126	\$0	\$0	+2 2,0		23,317 3	17,010	309	\$95,105	\$701,329			
St. Ofai	EP-39	Norumeia	Southeast	4/30/07	compiete	Er	2	wind	Instance a 1.05 MW Micon wind turbine on campus.	\$1,500,000	\$1,500,000	\$1,063,377	\$2,563,377	\$0	\$0	- 28 1,0	.30 .	25,442 \$	17,043	\$04	\$108,937	\$751,250			
Rural Advantage	RD-27	Luverne	Southwest	4/12/09	complete	RD	2	Biomass	Demonstrated the commercial production of Miscanthus as a biomass fuel for electric generation.	\$318,800	\$318,800	\$348,887	\$667,687	\$0	\$0	7									1
Ag. Utilization Research Institute	RD-69	Beaver Creek	Southwest	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	\$8,829	\$768,829	\$0	\$0	8									
Project Resource Corp	AW-03	Chandler	Southwest	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	\$2,700,000	\$3,600,000	\$0	\$0	39 5,4	00 1	51,627 \$1	18,542	\$412	\$2,280,570	\$4,518,506			
Pipestone Jasper School	AW-10	Pipestone	Southwest	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	\$204,000	\$956,835	\$0	\$0	10 9	00	22,892		\$62	\$1,021,422	\$789,857			
									Economic Benefits for Southwest Region	\$9,331,635	\$9,331,635	\$15,896,906	\$25,228,541	\$0	\$0	274 12,7	99 2	31,219 \$1	60,514	\$629	\$3,683,481	\$6,987,257	0	31	1
METRO REGION																									
Crown Hydro	AH-01	Minneapolis	Twin Cities	s 1/20/16	current	EP	1	Hydro	Install 3.2 MW of hydroelectric capacity on the Mississippi River in downtown Minneapolis.	\$5,100,000	\$1,538,591	\$2,612,647	\$4,151,238	\$3,561,409	\$0	45									
Innovative Power Systems	EP4-11	St. Paul	Twin Cities	s 9/1/17	current	EP	4	Solar	Install 967 kW of solar capacity at four sites within the Innovative Energy Corridor.	\$1,850,000	\$0	\$848,200	\$848,200	\$1,850,000	\$0	9									
Metropolitan Airports Commission	EP4-13	Bloomington	Twin Cities	s 12/1/16	current	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	\$0	\$2,166,493	\$2,166,493	\$2,022,507	\$0	24 1,4	71	40		\$0	\$65,983	\$1,160			
Minnesota Renewable Energy Society	EP4-15	Minneapolis	Twin Cities	5/17/17	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	\$0	\$1,375,100	\$1,375,100	\$2,661,320	\$0	15									
Target Corporation	EP4-20	St. Paul	Twin Cities	6/1/16	current	EP	4	Solar	Install a 350 kW roof-mounted, fixed-tilt photovoltaic facility on the Target Superstore.	\$583,513	\$0	\$47,420	\$47,420	\$583,513	\$0	1									
Minneapolis Park & Rec. Board	EP4-22	Minneapolis	Twin Cities	s 4/28/16	current	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	\$0	\$149,392	\$149,392	\$969,741	\$0	2									
City of St. Paul	EP4-34	St. Paul	Twin Cities	6/9/17	current	EP	4	Solar	Install a 105 kW fixed-tilt photovoltaic facility at CHS Field.	\$555,750	\$0	\$185,250	\$185,250	\$555,750	\$0	2									
Oak Leaf Energy	EP4-48	Shakopee	Twin Cities	s 1/26/17	current	EP	4	Solar	Install a 1,000 kW fixed-tilt photovoltaic facility at the Blue Lake Wastewater	\$2,000,000	\$0	\$864,810	\$864,810	\$2,000,000	\$0	9									
									recurrent i idit.																

RDF Annual Report to Legislature Attachment A Page 1 of 2

SUMMARY OF ALL RDF PROJECTS

Project Site (1/1/2002 to present)				present)	Fund	ling			Jobs	Power Deve	lopment	REC's		Externalities		Inte	llectual Prop	ertv							
Project Name	Contract	City	Zone	Project	Status	Type	Cycle	Resource	Project Description	RDF Award	Grant Funds	Leverage	Total Costs	Current Grant	Deobligated		Capacity G	eneration		Enviro	Avoided	Avoided	Articles 1	Presentations	Patent
Universisty of Minnesota (Noise)	RD4-12	Minneapolis	Twin Cities	End Date 5 9/2/18	current	RD	4	Wind	Research the sources and quality of wind turbine sound and the thresholds of	\$625,102	Disbursed \$0	Funds \$0	\$0	\$625,102	Funds \$0	0	(KW)	(MWh)			Capacity	Energy			Apps
University of Minnesota (VWS)	RD4-13	Minneapolis	Twin Cities	s 6/2/20	current	RD	4	Wind	Augment the predictive capabilities of the Virtual Wind Simulator by adding an	\$1,391,684	\$0	\$0	\$0	\$1 391 684	\$0	0									
University of St. Thomas	HE4-2	Chisago City	Twin Cities	s 8/12/18	current	RD	4	Wind	aeroelastic model and integrating advanced turbine control algorithms. Install a 0.25 MW peak, multi-purpose microgrid in Chisago City to establish an	\$2,157,215	\$0	\$0	50	\$2 157 215	50	0									
University of Minnesota (REMF)	HE4-3	Minneapolis	Twin Cities	s 8/20/18	current	RD	4	Wind	Engineering Senior Design Clinic for microgrid research and testing. Create Renewable Electricity for Minnesota's Future ("REMF") which will fund and	\$3,000,000	\$1,000,000	\$0	\$1,000,000	\$2,000,000	\$0	11									
Merrick	EP3-2	Vadnais Heights	Twin Cities	s 12/22/08	3 complete	EP	3	Solar	support research in renewable electric energy generation. Installed a roof-mounted 100 kW solar photovoltaic facility on a non-profit adult day	\$735,000	\$735,000	\$52,000	\$787.000	\$2,000,000	50	9	100	557	\$421	\$2	\$22,909	\$16,446			
City of Minneapolis	EP3-11	Minneapolis	Twin Cities	s 1/15/13	complete	EP	3	Solar	training and habilitation center. Installed a 600 kW photovoltaic facility on the Minneapolis Convention Center.	\$2,000,000	\$2,000,000	\$1.096.756	\$3,096,756	\$0	\$0	34	600	3,575	\$3,013	\$10	\$82,221	\$104,505			
freEner-g	EP3-12	Metro Area	Twin Cities	s 2/17/11	complete	EP	3	Solar	Installed 280 kW photovoltaic capacity through a leasing and service package for	\$1,488,922	\$2,000,000	\$1,090,790	\$3,090,150	50	50	25	280	1,129	\$923	\$3	\$40,004	\$33,082	1		
University of Minnesota (Koda)	RD3-1	Shakopee	Twin Cities	s 1/22/15	complete	RD	3	Biomass	residential and small businesses. Development of a production, pre-processing and delivery system for biomass	\$992,989	\$076 742	\$1.201.642	\$2,200,092	30	\$16.246	26							1	4	
SarTec Corporation	RD3-2	Anoka	Twin Cities	5 7/11/11	complete	RD	3	Biofuel	feedstock's from prairie and grasslands. Researched the growth of algae fed on CO2 from flue gas and extracted the algae oils	\$350,000	\$970,745	\$1,391,043	\$2,308,380	50	\$10,240	4									
Bepex International	RD3-4	Minneapolis	Twin Cities	5 7/28/11	complete	RD	3	Biomass	for conversion into a marketable biodiesel product. Demonstrated torrefaction and densification as processes to reduce transportation and	1 \$924,671	\$350,000	\$0	\$350,000	50	50	10									
University of Minnesota (Nanocrystals)	RD3- 25	Minneapolis	Twin Cities	s 12/26/11	complete	RD	3	Solar	storage costs associated with biomass feedstock. Developed techniques for controlling microstructures of hydrogenated silicon and	\$732.032	\$924,671	\$0	\$924,671	\$0	\$0	8							3	8	
University of Minnesota (Cropping)	RD3-28	St Paul	Twin Cities	9/22/13	complete	RD	3	Biomass	improving the grain size of microcrystalline silicon PV films. Developed guidelines for accurate management of biomass removal and maintenance	\$979.082	\$732,032	\$0	\$732,032	\$0	\$0	11							4	7	
University of Minnesota (Wind)	RD3_42	Minneapolis	Twin Cities	8/7/13	complete	RD	3	Wind	of soil quality. Developed and tested a Virtual Wind Simulator to provide accurate wind turbulence	\$999,999	\$979,048	\$0	\$979,048	\$0	\$34	14							11	13	
Lower St. Anthony Folls	ED 24	Minneepolis	Twin Cities	1/21/12	complete	ED	2	Undro	predictions. Restored 9 176 MW hydroelectric energing canacity at the Lower St. Anthony	\$2,000,000	\$999,598	\$286,199	\$1,285,797	\$0	\$401	14	0.176	151.062	\$142.010	\$421	\$406.820	\$2 \$70 22\$		15	
Lower St. Anthony Fails	EP-34	Minneapons	T win Cities	0/24/00	complete	Er	2	nyuro	Falls by using run-of-river technology.	\$2,000,000	\$2,000,000	\$37,993,881	\$39,993,881	\$0	\$0	454	9,170	131,005	\$142,019	5421	\$400,820	\$5,870,228			
University of Minnesota	RD-29	Minneapoils	Twin Cities	5 9/24/08	complete	RD	2	Biomass	Researched operation of turbo-generators using biomass-derived ons.	\$299,284	\$299,284	\$0	\$299,284	\$0	\$0	3							-	-	
University of Minnesota	RD-56	St. Paul	Twin Cities	5 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	\$0	\$803,246	\$0	\$55,117	9							7	/	
Windlogics	RD-57	St. Paul	Twin Cities	s 11/11/08	s complete	RD	2	Wind	Defined, designed, built and demonstrated a complete wind power forecasting system.	\$997,000	\$997,000	\$141,437	\$1,138,437	\$0	\$0	12								1	
Center for Energy Environment	RD-94	Minneapolis	Twin Cities	s 10/12/07	7 complete	RD	2	Biomass	Developed two web-based programs for planning and development of biomass resources in Minnesota.	\$397,500	\$397,500	\$42,115	\$439,615	\$0	\$0	5									
MN Dept. of Commerce	AS-05	St. Paul	Twin Cities	s 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	\$0	\$1,150,000	\$0	\$0	12	960	11,329		\$31	\$1,250,219	\$443,805			
Science Museum	AS-06	St. Paul	Twin Cities	s 12/31/03	3 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	\$63,300	\$163,300	\$0	\$0	2	9	124		\$0	\$1,930	\$5,430			
Sebesta Blomberg	BB-03	Roseville	Twin Cities	s 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	\$184,663	\$923,317	\$0	\$0	10									
Energy Performance Systems	BB-06	Rogers	Twin Cities	s 12/15/02	2 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	\$85,056	\$342,303	\$0	\$9,261	4									
University of Minnesota	CW-06	Minneapolis	Twin Cities	s 12/31/06	5 complete	RD	1	Wind	Designed a flywheel battery system to enhance the ability to dispatch wind energy with inertial storage.	\$654,309	\$654,309	\$0	\$654,309	\$0	\$0	7									1
OUT OF STATE									Economic Benefits for Metro Region	\$39,581,145	\$19,121,845	\$50,363,532	\$69,485,377	\$20,378,241	\$81,059	755	12,596	167,816	\$146,376	\$467	\$1,870,086	\$4,474,657	27	40	1
Northern Plains Power Tech.	RD3-21	Brookings, SD	Out of State	e 11/11/12	2 complete	RD	3	Solar	Developed a loss-of-mains detection based on harmonic signature and synchrophason	\$493,608	\$493,608	\$240,665	\$734,273	\$0	\$0	8								4	1
Interphases Solar	RD3-53	Moorpark, CA	Out of State	e 7/20/12	complete	RD	3	Solar	Demonstrated a manufacturing process to produce lightweight, thin-film solar cells.	\$1,000,000	\$1,000,000	\$666,021	\$1,666,021	\$0	\$0	18							1	5	
University of North Dakota	RD3-71	Grand Forks, ND	Out of State	e 3/23/12	complete	RD	3	Biomass	Demonstrated a thermally integrated biomass gasification systems with a 30 kW low	- \$999,728	\$999,438	\$0	\$999,438	\$0	\$290	11							1	1	
Energy Conversion Devices	RD-22	Rochester Hills, M	I Out of State	e 10/12/07	7 complete	RD	2	Biomass	Btu gas turbine. Researched processes to reform bio-ethanol and bio-methanol into hydrogen for use	\$900,000	\$900,000	\$1,390,015	\$2,290,015	\$0	\$0	25								6	
Coaltec	RD-26	Carterville, IL	Out of State	e 1/12/07	complete	RD	2	Biomass	in a fuel cell or gas turbine to generate electricity. Studied handling, performance and emissions to assess feasibility of poultry waste as	\$450,000	\$450,000	\$378,500	\$828,500	\$0	\$0	9									
Production Specialties	RD-72	Oklahoma City, Ok	K Out of State	e 11/16/09	ocomplete	RD	2	Biomass	a sustainable feedstock for a fixed-bed gasifier. Investigated a technology to selectively remove hydrogen sulfide (H2S) from biogas	\$228,735	\$228.735	\$263.767	\$492.502	\$0	\$0	5								1	
Interphases Research	RD-78	Moorpark, CA	Out of State	e 10/14/08	3 complete	RD	2	Solar	without generating a waste stream. Developed a concept to manufacture flexible photovoltaic modules in a continuous	\$1,000,000	\$1,000,000	\$821 700	\$1.821.700	\$0	\$0	20								6	
Global Energy Concepts	RD-87	Lowell, MA	Out of State	e 5/7/09	complete	RD	2	Wind	roll-to-roll electro-deposition process. Analyzed and developed advanced methods for reducing uncertainty in wind power	\$370,000	\$370,000	\$28,236	\$398 236	\$0	\$0	4									
NREL - Inkjet Solar Cells	RD-93	Golden, CO	Out of State	e 11/11/08	3 complete	RD	2	Solar	estimates. Designed and developed a thin-film solar cell that will use a direct-write inkjet	\$1,000,000	\$949.005	\$20,250	\$949.005	50	\$50.995	10									
NREL-Low Band Gap-Solar	RD-107	Golden, CO	Out of State	e 12/9/08	complete	RD	2	Solar	printing process. Overcome limitations in organic-based solar cells by developing low band gap (red	\$1,000,000	\$947,005	\$0	\$947,005	\$0	\$55.548	10							6	2	
Iowa State University	RD-110	Ames, IA	Out of State	e 7/12/07	complete	RD	2	Biomass	light absorbing) materials. Performance testing of a particulate filtration clean-up system for the producer gas	\$405,000	\$08 242	50	\$08 242	\$206.657	\$206.657	1									
University of ND - Cofiring	BB-09	Grand Forks, ND	Out of State	e 3/31/05	complete	RD	1	Biomass	from a biomass gasifier. Measured operational and component impacts of co-firing biomass with coal in an	\$444,478	\$70,343	\$0	\$70,343	\$300,037	\$300,037	8									
Community Power Corp.	BB-10	Littleton, CO	Out of State	e 3/24/05	complete	RD	1	Biomass	indirect fired combined-cycle pulverized-coal furnace. Designed, developed, and tested a centrifugal filter capable of removing sub micron	\$638,635	\$444,443	\$296,219	\$740,662	\$35	\$33	7									
University of ND - SCR Performance	BB-12	Grand Forks, ND	Out of State	e 6/30/06	complete	RD	1	Biomass	particles and aerosols from a hot producer bio-gas stream. Examined the rates and mechanisms of catalyst deactivation within the emissions	\$60.000	\$548,692	\$133,054	\$081,746	\$89,943	\$89,943	4									
Colorado School of Mines	CB-07	Golden, CO	Out of State	e 12/31/07	complete	RD	1	Biomass	from a biomass co-fired utility boiler. Developed a fuel cell prototype for use in ambient or high temperatures.	\$1,116.742	\$59,973	\$340,000	\$399,973	\$27	\$27	12									
University of ND - SOFC	CB-08	Grand Forks, ND	Out of State	e 10/31/07	7 complete	RD	1	Biomass	Incorporated solid oxide fuel cells (SOFCs) and easification into one integrated	\$1,250,142	\$1,116,742	\$0	\$1,116,742	\$0	\$0	23									1
NREL	CS-05	Golden CO	Out of State	e 7/9/07	complete	RD	1	Solar	system to produce electricity. Design and develop of solutions and techniques to use an inkiet printing process for	\$934 628	\$1,250,142	\$885,928	\$2,136,070	\$0	\$0	10									
Global Energy Concents	CW-02	Lowell MA	Out of State	e 10/1/03	complete	RD		Wind	the manufacturing of thin-film solar cells. Translated the effects of a turbine's rotatine flexible blades into a linear model for use	e \$75.000	\$924,757	\$0	\$924,757	\$9,871	\$9,871	1									
	211 02		a at of Bull		simpled				in wind turbine design software. Economic Benefits for Out of State Area	\$12,366,606	\$73,239 \$11,851,569	\$0	\$73,239 \$17,295,674	\$1,761	\$1,761	188	0	0	\$0	\$0	\$0	\$0	8	25	2
										φ12,000,070	¢11,001,009	φ5, 111 ,103	\$1,90 ,0 74	φ 1 00,27 1	φσ109127	100	U	U	φ υ	φU	φu	φU	0		
									TOTAL ALL PROJECTS	\$ \$91,337,611	\$63,177,631	\$106,083,089	\$169,260,720	\$25,889,535	\$2,684,863	1,816	26,791	405,089	\$312,072	\$1,113	\$5,670,077	\$11,633,323	44	129	5

RDF Annual Report to Legislature Attachment A Page 2 of 2

RDF advisory group

- Ben Gerber¹, manager energy policy Minnesota Chamber of Commerce Representing commercial and industrial customers
- Tami Gunderzik, senior manager product portfolio NSP-Minnesota Representing NSP-Minnesota
- Eric Jensen², energy coordinator Izaak Walton League Representing the environmental community
- Michelle Rosier³, senior campaign and organizing manager Sierra Club North Star Chapter Representing the environmental community
- Kevin Schwain, manager emerging customer program NSP-Minnesota Representing NSP-Minnesota
- Joseph Sullivan⁴, manager strategic relations Center for Energy and Environment Representing the environmental community
- Lise Trudeau, engineer Minnesota Division of Energy Resources Representing residential customers
- Heather Westra
 Representing Prairie Island Indian community

RDF Administration

- Amy Fredregill, program manager
- Mark Ritter, grant administrator

¹ Resigned from RDF advisory group as of October 13, 2015. Vacant position on December 31, 3015

² Resigned from RDF advisory group as of November 10, 2015.

³ Appointed by Minnesota Environmental Partnership as of January 13, 2015.

⁴ Appointed by Minnesota Environmental Partnership as of December 8, 2015.

RENEWABLE DEVELOPMENT FUND FINANCIAL STATEMENT As of December 31, 2015

-			
	2001 - 2014	2015	Since RDF Inception
	2001 2014	2010	(2001-2015)
Total RDF Credits	\$250,500,000	\$25,600,000	\$276,100,000
Excelsior	\$10,000,000	\$0	\$10,000,000
Energy Production Grants	\$20,675,324	\$1,072,213	\$21,747,537
Research Grants	\$29,692,455	\$1,737,551	\$31,430,006
Total RDF Grant Payments	\$60,367,780	\$2,809,764	\$63,177,544
Administrative Costs	\$2,241,621	\$15,741	\$2,257,362
University of Minnesota	\$25,000,000	\$0	\$25,000,000
REPI	\$83,146,277	\$4,652,960	\$87,799,237
Solar Rebates	\$7,995,985	\$16,031,951	\$24,027,936
Other Legislative Mandates	\$25,451,809	\$0	\$25,451,809
Total RDF Costs	\$204,203,473	\$23,510,416	\$227,713,889

SUMMARY OF RDF PROGRAM FUNDS

(+)	\$276,100,000
(-)	\$227,713,889
(-)	\$110,168,352
(+)	\$63,177,544
(=)	\$1,395,303
	(+) (-) (-) (+) (=)

	Active RDF Projects by Congressional Districts (1/1/2015 - 12/31/2015)													
	RDF	Caract	T	Carla	Renewable		Host Site		Project Sponsor					
(Contract	Grant	Type	Cycle	Category	District	Location	District	Organization					
Di	strict 1													
	EP4-5	\$900,000	EP	4	Solar	MN01	SSND, Mankato	MN03	Best Power, Hopkins					
Di	istrict 2													
	RD3-77	\$1,000,000	RD	3	Biomass	MN02	P & J Farms, Northfield	IL	Coaltec Energy USA, Carterville					
	EP4-48	\$2,000,000	EP	4	Solar	MN02	BLWWTP, Shakopee	СО	Oak Leaf Energy, Denver					
	RD4-2	\$982,408	RD	4	Solar/Wind	MN02	WCROTC, Morris	MN05	U of M, Minneapolis					
Di	istrict 3													
	EP4-5	\$900,000	EP	4	Solar	MN01	SSND, Mankato	MN03	Best Power, Hopkins					
	EP4-6	\$172,213	EP	4	Solar	MN06	SJU, Collegeville	MN03	Best Power, Hopkins					
	EP4-12	\$2,022,507	EP	4	Solar	MN03	MAC, Bloomington	MN03	MAC, Bloomington					
Di	strict 4								•					
	RD3-1	\$992,989	RD	3	Biomass	MN02	Rahr Malting	MN04	U of M, St. Paul					
	EP4-11	\$1,850,000	EP	4	Solar	MN04	EIC, St. Paul	MN05	IPS, Minneapolis					
	EP4-20	\$583,513	EP	4	Solar	MN04	Midway Superstore, St. Paul	MN05	Target, Minneapolis					
	EP4-34	\$555,750	EP	4	Solar	MN04	CHS Field, St. Paul	MN04	City of St. Paul					
	HE4-2	\$2,157,215	HE	4	All	MN06	Winehaven, Chisago City	MN04	UST, St. Paul					
	HE4-3	\$3,000,000	HE	4	All	MN04	U of M, St. Paul	MN05	U of M, Minneapolis					
Di	istrict 5													
	AH-01	\$5,100,000	EP	1	Hydro	MN05	Crown Hydro, Minneapolis	MN05	Crown Hydro, Minneapolis					
	EP4-11	\$1,850,000	EP	4	Solar	MN04	EIC, St. Paul	MN05	IPS, Minneapolis					
	EP4-15	\$2,661,320	EP	4	Solar	TBD	TBD	MN05	MRES, Minneapolis					
	EP4-20	\$583,513	EP	4	Solar	MN04	Midway Superstore, St. Paul	MN05	Target, Minneapolis					
	EP4-22	\$969,741	EP	4	Solar	MN05	MPRB, Minneaoplis	MN05	MPRB, Minneapolis					
	RD4-2	\$982,408	RD	4	Solar/Wind	MN02	WCROTC, Morris	MN05	U of M, Minneapolis					
	RD4-12	\$625,102	RD	4	Wind	MN05	U of M, Minneapolis	MN05	U of M, Minneapolis					
	RD4-13	\$1,391,684	RD	4	Wind	MN05	U of M, Minneapolis	MN05	U of M, Minneapolis					
	HE4-3	\$3,000,000	HE	4	All	MN04	U of M, St. Paul	MN05	U of M, Minneapolis					
Di	strict 6													
	EP4-6	\$172,213	EP	4	Solar	MN06	SJU, Collegeville	MN03	Best Power, Hopkins					
	EP4-24	\$1,106,600	EP	4	Wind	MN06	Stearns, Sherburne, Meeker	OK	Bergey Windpower, Norman					
	HE4-2	\$2,157,215	HE	4	All	MN06	Winehaven, Chisago City	MN04	UST, St. Paul					
Di	strict 7													
	RD3-69	\$1,000,000	RD	3	Biomass	MN07	MnVAP, Priam	MN07	MnVAP, Raymond					
	RD3-41	\$958,369	EP	4	Solar	MN07	City of Hutchinson	MN07	City of Hutchinson					
Di	strict 8		-	-	·									
	RD4-11	\$1,899,449	RD	4	Biomass	MN08	NRRI, Coleraine	MN05	U of M, Minneapolis					

CERTIFICATE OF SERVICE

I, Jim Erickson, 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
- \underline{xx} electronic filing

DOCKET NO. E002/M-12-1278

Dated this 16th day of January 2016

/s/

Jim Erickson Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.m n.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_12-1278_Official
John J.	Carroll	jcarroll@newportpartners.c om	Newport Partners, LLC	9 Cushing, Suite 200 Irvine, California 92618	Electronic Service	No	OFF_SL_12-1278_Official
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_12-1278_Official
James	Gibson	james.gibson@farmameric a.org	Farmamerica	7367 360th Avenue Waseca, MN 56093	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
Lynn	Hinkle	Ihinkle@mnseia.org	Minnesota Solar Energy Industries Association	2512 33rd Ave South #2 Minneapolis, MN 55406	Electronic Service	No	OFF_SL_12-1278_Official
Rick	Koebbe	rk@powerworks.com	PowerWorks Wind Turbines	15850P Jess Ranch Road Tracy, CA 95377	Electronic Service	No	OFF_SL_12-1278_Official
Mara	Koeller	mara.n.koeller@xcelenergy .com	Xcel Energy	414 Nicollet Mall 5th Floor Minneapolis, MN 55401	Electronic Service	No	OFF_SL_12-1278_Official
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	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
Shalini	Menezes	smenezes@interphases.co m	InterPhases Solar	668 Flinn Avenue Moorpark, CA 93021	Electronic Service	No	OFF_SL_12-1278_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Robert	Messerich	b.messerich@gmail.com	Dragonfly Solar, LLC	10583 202nd St West Lakeville, MN 55044	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
SaGonna	Thompson	Regulatory.records@xcele nergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_12-1278_Official
Pamela A.	Webb	N/A	University of Minnesota	450 McNamara Alumni Center 200 Oak St SE Minneapolis, MN 55455-2070	Paper Service	No	OFF_SL_12-1278_Official
Dr. Don	Weinkauf	N/A	University of St. Thomas	Mail OSS 101 2115 Summit Ave St. Paul, MN 55105-1079	Paper Service	No	OFF_SL_12-1278_Official
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_12-1278_Official